CA PanAPT®

Reference Guide

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Second Edition

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Chapter 1: Introduction

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System Overview

This chapter gives you an overview of the CA-PanAPT system. Each topic describes general aspects of the system. The rest of the document provides more specific details of the system. Help panels are available throughout the application to provide additional information.

The CA-PanAPT system has four major functions:

- Production Turnover Application
- User Identification Facility (UIF)
- Project Administration
- Development Facility.

These functions are described later in this chapter.

CA-PanAPT Features

CA-PanAPT provides the following features:

- The ability to schedule, revise, or approve a turnover request interactively using ISPF.
- The ability to customize for site-specific turnover requirements using modeling, parameters, and user-coded exits. CA-PanAPT controls the Production implementation of any entity that can be controlled by a batch job.
- The ability to handle turnover as part of a regularly scheduled process or as an emergency.
- The ability to set up and enforce standards by including them in models. User-coded exits can also help enforce site standards.
- The definition of libraries, such as Test, Quality Assurance, or Production, with backup and backout counterpart libraries for these (with the exception of the starting "Test" library).
- As many as 14 optional intermediate levels of libraries between your starting level and final production level. This allows for preproduction staging and testing.
- The control of moves from a starting test level, through any intermediate preproduction staging levels, up to production, with provisions to back up older versions of members before replacing them, and provisions to back changes out of any level, reinstating what was there before.
- The ability to assign responsibility for specific entities to an individual. After assignment under CA-PanAPT, only that person (or group) can designate that the entity be moved into Production.
- The ability to group related entities into a Move Request so that all entities are moved together.
- Zero to 20 different Verification procedures can be required at each stage before a move can be processed.
- Zero to 20 different online approvals can be required at each stage before a move is begun.
- An Inventory of all Production entities contained in all Production libraries.
- A comprehensive set of audit, management, and historical reports plus reports that show future planned moves. These reports identify items that are to be moved into Production and when this will happen.
- A default user sign-on to allow most users the ability to create and close Move Requests without having to maintain individual security entries for each user.
- Security groups with different levels of authority.

- The Retrieve function copies Assigned members to the Test Library of a Library Code under control of CA-PanAPT models. The Retrieve function is available for Library Code definitions for which the Assignment and Retrieve options have been enabled.
- The Back Out function replaces all members of a Move Request on any level's libraries (either a preproduction staging level or the final production level) with members for a Backup Library when the new members at that level are causing problems. Back Out also lets you save the faulty members on Back Out libraries.
- Detailed written documentation and online HELP panels to assist you throughout the entire process.
- Centralized audit and reporting functions for moves that actually take place outside of the OS/390 environment.
- Audit or control of any system or vendor software moves or changes (such as CA-Panvalet, CA-Panexec, CICS tables, database updates, and hardware changes).
- Validation of the existence of the entities at the appropriate library levels prior to performing the move.
- CA-PanAPT provides a Development Facility that is a functional extension to CA-PanAPT. The Development Facility provides:
  - Change management during the development portion of the life cycle before any migration is started.
  - An environment to control Checkout, Checkin, Compile, Link, and many other functions.
  - Three way merges can be done if CA-Pan/Merge is available.
  - Integrated tools such as the CA-Panvalet ISPF Option (if available), CA-Librarian ELIPS (if available), and ISPF for the use of the Edit and Browse functions.
  - Two development levels: one development level to use for Checkin and one development level to use for Checkout. This is in addition to the 16 levels that were introduced in CA-PanAPT release 2.0.
- CA-PanAPT provides an independent logon facility, the User Identification Facility (UIF).
  - You can create, change, or deactivate logon system IDs. You can also enforce the use of this facility by using external security (Unicenter for OS/390 Common Services CAISSF) and restrict specific logon system IDs.
  - The UIF feature is an ISPF table that contains information for the Table Entry Name (CA-PanAPT logon system ID). The logon system ID instructs CA-PanAPT which environment to set up for a session for individual users, groups, or departments.
- Capability to name a Move Request with a Change Name. You can use the Change Name or Move Request Number for selection processing.
- Many Selection Lists are available to simplify the setup of Move Request (Change Name):

  - Access Method MSL
  - Inventory MSL
  - Library Code MSL
  - Move Request (Change Name) MSL
  - Project MSL.
- Capability to copy members that are in any level in the migration path for rework.
- Capability to use Wildcard notation when specifying selection criteria for Change Names, Library Code/Subcodes, Member names, Project names, Service Requests, and user Ids.
- Capability to browse members in any data set that has a Library Code defined to CA-PanAPT.
- Capability to build a Member Scratchpad when browsing members. The Member Scratchpad can be used later to add members to a Move Request.

Production Turnover Application

CA-PanAPT is a Production Turnover application. Normally, the parts of a data processing system are built in libraries outside the scope of ongoing Data Center operations. Production turnover is the process of moving all of the parts of a system from the libraries where they were developed and tested to the libraries where they are kept, used, or executed as part of normal business (Data Center) operations. Following this movement, the parts of the system are in Production.

CA-PanAPT streamlines and automates many of the processes required to identify, approve, and move new versions of Production software and their related components into Production libraries.

In addition to internal authorization capabilities, CA-PanAPT now uses CA-90s Standard Security Facility (CAISSF) for external security. For most every action and function, CA-PanAPT builds the predefined security rules and performs the SSF calls. SSF in turn checks what security package is running (for example, CA-Top Secret, CA-ACF2, or RACF), and takes the rule passed and turns it into the appropriate security call. If there is no violation, CA-PanAPT then checks if it also passes the internal authorization set up by a CA-PanAPT administrator. For more information, see the "Update Your Security System" step in the chapter "Installation and Customization Using SMP/E," in the *CA-PanAPT Getting Started Guide*.

The CA-PanAPT Production Turnover Application consists of the following elements:

- CA-PanAPT Basic Components
- System Files
- Groups
- Approvals
- Verification Procedures
- Move Requests
  - Move Request status
  - Assignment of ownership
  - Retrieve function
  - Move Request cycle
  - Multiple Move Processing cycles.
- Security

These topics are described in detail later in this chapter.

User Identification Facility (UIF)

CA-PanAPT also provides an independent logon facility, the User Identification Facility (UIF). The CA-PanAPT UIF provides a centralized facility to define details about a working environment to CA-PanAPT. For example, it includes which database to allocate and access, the authorized users and passwords for job submissions, the panel, message, skeleton and table libraries to allocate, as well as other entries. This is very useful for single development teams or groups within departments to have their own CA-PanAPT databases. Many times a single group is working on several different projects or products, and by using this facility (with the appropriate CA-PanAPT logon system ID), instructs CA-PanAPT which environment to set up for a session.

The CA-PanAPT UIF provides four major functions:

- Creating logon system IDs
- Changing logon system IDs
- Deactivating logon system IDs
- Enforcing the use of this facility by using external security (Unicenter for OS/390 Common Services CAISSF) and restricting specific logon system IDs.

See the "User Identification Facility (UIF)" chapter for detailed instructions on how to use these features. For instructions on how to set up external security, see the "Update Your Security System" step in the chapter "Installation and Customization Using SMP/E," in the *CA-PanAPT Getting Started Guide*.

Development Facility and Project Administration

The CA-PanAPT Development Facility (DF) is a functional extension to CA-PanAPT that provides change management during the development portion of the life cycle before any migration is started. The Development Facility provides an environment to control Checkout, Checkin, Compile, Link, and many other functions. CA-PanAPT integrates tools such as the CA-Panvalet ISPF Option (if available), CA-Librarian ELIPS (if available), and ISPF for the use of the Edit and Browse functions. This facility also provides the capability to perform three way merges (if CA-Pan/Merge is available).

Two development levels are available: one development level to use for Checkin and one development level to use for Checkout. This is in addition to the 16 levels that are already available. Members can be copied from any level in the migration path for rework.

For ease of use, the following development functions and many other functions and features are all done from one panel:

- Checkout
- Checkin
- Edit
- Browse
- Compile
- Link
- View member history
- Add members to a Move Request.

Project Administration is a component to set up the Development Facility for a Project. Within Project Administration you define what libraries are to be used to check in and check out members to CA-PanAPT. You can also create or modify the Move Requests that you use in the Development Facility.

See the "Project Administration" chapter and the "Development Facility" chapter for detailed instructions on how to use these facilities.

CA-PanAPT Main Menu

The CA-PanAPT Main Menu provides online and batch functions that run under ISPF. It also provides HELP panels to assist you with panel input. See Menu Options for a description of all the functions listed on the CA-PanAPT Main Menu, APIP000.

Using the CA-PanAPT Main Menu

The CA-PanAPT Main Menu is an ISPF Primary Option panel. This means that if you type **RETURN** on the Command line of any CA-PanAPT panel, you go to the CA-PanAPT Main Menu. The ISPF jump function is also enabled. You can jump to any of the selections on the CA-PanAPT Main Menu. For example, if you type **=I** on the Command line of any CA-PanAPT panel, you will go to the Inventory File Maintenance Entry panel.

Note: Typing **RETURN** or **=…** on a panel is equivalent to entering the END command (PF3) until the CA-PanAPT Main Menu displays. For example, if you are updating an Inventory Record, and you type **=I** to go to Library Code File Maintenance, the Inventory Record is not updated. This is true for any CA-PanAPT activity.

Menu Options

From the CA-PanAPT Main Menu, select one of the options and press ENTER. CA-PanAPT displays the panel for that option. Enter the END command (PF3) to terminate CA-PanAPT and return to the ISPF Primary Option Panel.

The CA-PanAPT options are described in the following table:

Option	Description
DEV or D	Development Facility. Use this function to access the Development Facility to prepare modules, application systems, and so forth for migration to their final destination. This environment supports development functions, such as Checkouts, Checkins, Compiles, Links, Compare modules, Merge modules, Edit, Browse, and many other functions. This facility integrates with the CA-Panvalet ISPF Option (if available), CA-Librarian ELIPS (if available), and ISPF for PDS files when Editing or Browsing. See the Development Facility chapter for detailed instructions on using this facility.
PA or A	Project Administration. Use this function to access the Project Administration functions to set up Projects and (Change, Move) Requests. The Development Facility works only with Projects. Projects define the development libraries to use when performing Checkouts, Checkins, Compiles, Edits, and so forth. See the Project Administration chapter for detailed instructions on using this facility.
MOV or M	Create, display, or update a Move Request. Use this function to access the CA-PanAPT functions to update a Pending File. These functions include adding, changing, and deleting (Change, Move) Requests. Other functions include manipulating (Change, Move) Requests. See the Move Requests chapter for detailed instructions on using this function.

Option	Description
INV or I	Inventory file maintenance / Assignment / Release. Use this function to access the CA-PanAPT functions to update an Inventory File. These functions include adding, changing, and deleting inventory records. Other functions include assigning, transferring, releasing, and retrieving inventory records. See the Inventory Records chapter for detailed instructions on using this function.
LCM or L	Library Code file maintenance. Use this function to access the CA-PanAPT functions to update a Library Code File. These functions include adding, changing, and deleting Library Codes. See the Library Codes chapter for detailed instructions on using this function.
CTL or C	Control file maintenance. Use this function to access the CA-PanAPT functions to update a Control File. These functions include adding, changing, and deleting CA-PanAPT user IDs, System Information Records, and Activities. See the Control File chapter for detailed instructions on using this function.
REP or R	Online report facility. Use this function to generate and view CA-PanAPT reports in the online environment. See the Online Report Facility chapter for detailed instructions on using this function.
TUT or T	Tutorial. Use this function to access the CA-PanAPT tutorials that describe the fundamentals of CA-PanAPT.
X	Exit. Use this function to exit the CA-PanAPT system.

Basic Components

CA-PanAPT has two basic components:

- Online component
- Batch component

Online Component

You use the CA-PanAPT online component to update the CA-PanAPT System files. Using the CA-PanAPT online facility you can:

- Add or update Inventory Records that contain member-specific information about Production members, including compile and link options.
- Define Library Codes to control moves. A Library Code specifies the migration list of libraries, processing characteristics, and approvals for members.
- Establish CA-PanAPT security.
- Add, update, review, or approve Move Requests. A Move Request specifies the members and details about the move to CA-PanAPT. It is the bundle of changes that CA-PanAPT controls and reports on.
- Use the Development Facility to change your applications prior to turnover. The Development Facility is where you perform functions on your programs, such as Checkout, Edit, Compile, and Checkin until you are ready to turn them over

Batch Component

The CA-PanAPT batch component provides standard reports that can be run regularly or on an exception basis to reflect online activity, such as history or to reference reports regarding the state of the system. More importantly, CA-PanAPT Move Processing is actually done by a set of job streams and programs that must be run regularly to perform the moves.

The batch component contains the following types of jobs:

- Reporting Jobs
- Move Request Processing Jobs
  - Selection of eligible, approved Move Requests
  - Executing Move Requests
- File Maintenance Jobs.

System Files

CA-PanAPT uses the following separate VSAM KSDS and PDS files to retain its system information and to control processing:

Database

The database is a standard VSAM KSDS file. It is logically subdivided into a Control File, a Library Code File, a Pending File, and an Inventory File.

Control File

The Control File is a subset of the database containing the following types of system and security information:

Site-Defined Data

The name of the site and the name given to the CA-PanAPT system in that organization. All report headers use these names. The Control File also retains definitions for site-selected global names and processing options.

System Activity Information

The definition of all activities that can be done under this CA-PanAPT system and which designated users or groups of users are allowed to perform those activities.

User Information

The definition of users to CA-PanAPT. Users can be given special authority to perform CA-PanAPT activities. The Control File also retains the capabilities of the default user (so all users need not be separately defined to CA-PanAPT).

Verification Modeling Statements

The definition of the modeling statements for the 20 verification procedures. These are used by Move Request Run Verification Procedures.

Library Level Information

The definition of move levels at your site to CA-PanAPT. This includes the names of your levels and the order of movement from one level to the next.

Access Methods

The definition of the Access Methods used by your CA-PanAPT controlled libraries and the names of the user exits to interface to them.

CA-Pan/LCM Configuration Manager Information

The names of Configuration Manager data sets and members, and other information required in order to use the Configuration Manager Impact Analysis member selection list and verification procedure.

Library Code File

The Library Code File is a subset of the database that contains a record for each Library Code set up under CA-PanAPT. A Library Code is a collection of information that defines member types and the data set names of the libraries where they reside. This information includes:

- A description of the Library Code.
- The names of the libraries associated with this Library Code.
- The approvals required for the move type.
- Inventory options including assignment and inventory edit exit.
- Edit and verification criteria for the move type including member existence exit.
- Any security codes needed to access individual files.
- The name of the CA-PanAPT models and any modeling information necessary for batch moves (described further under Model File later in this chapter).
- MSL Exit program name to read data set directory and parms.
- The name of the CA-PanAPT models and the modeling information required for Retrieve processing.
- The names of related Library Codes that provides information to modeling. For instance, during a compile, the related copy/include libraries and the related load library can be determined and embedded in the JCL.
- The names of the CA-PanAPT models used by the Development Facility.
- Options controlling the Development Facility.

Your site defines a Library Code for each set of libraries you use.

Pending File

The Pending File is a subset of the database containing Move Requests. A Move Request is a unit of work for CA-PanAPT. When you want to move a set of entities from one set of CA-PanAPT-controlled libraries to another, you must define a Move Request.

Contents of the Pending File

Some information included in the definition of a Move Request is as follows:

- Description of the move as a whole
- Service request or audit number
- Date when the move into the next level is to take place
- Date when the move into the final level is desired
- Names of all entities included in this Move Request
- Library Code for each entity.

Special Handling Move Requests

A Move Request can be a Special Handling Only Request. It merely documents an event external to the actual CA-PanAPT system. This means that CA-PanAPT does not prepare a batch job to move this request. Special Handling Move Requests do not have any members or require any approvals.

An alternative to managing an external event is to document these events in a document library and add their names to CA-PanAPT. After the Move Request containing these external events is read by the appropriate departments, it is closed.

Early Stop Move Requests

You can indicate that a Move Request stops short of your final production level via an Early Stop level name. This is typically used to create a Move Request to correct a module that was already moved to an intermediate level (such as quality assurance) as the result of a previous Move Request.

Inventory File

The Inventory File is a subset of the database that retains an inventory of any or all members of Production Libraries. You can create one record for each member in each Library Code.

The Inventory File serves these purposes:

- It provides data values to the modeling process. You can make them unique to the member. You can use inventory data to differentiate between online and batch programs in the same Library Code. The same model can invoke different processing for members based on their inventory data.
- It records the user ID of the user to whom the member is assigned. You can use Assignment to indicate who has current responsibility for the member.
- It provides information regarding the member (compile options, for example).

You can specify whether or not you will use Inventory Records and Assignment when you set up the Library Code definition.

A batch utility is provided to create basic Inventory Records from existing libraries. This is normally done as part of CA-PanAPT implementation. (See the *CA-PanAPT Administrator Guide* for further details.)

Contents of the Inventory File

The Inventory File record contains the name of the member and the Library Code, and can contain some other optional information including:

- A description of the member
- A comment for the member
- CA-PanAPT owner, (if any)
- Language
- Application
- Environment
- Compiler and Link-edit options
- 20 freeform user data fields.

In addition, when inventory is enabled, CA-PanAPT retains the number of the last Move Request that moved the member into the Production Library. When assignment is enabled, CA-PanAPT retains the name of the CA-PanAPT user and Move Request to which this member is currently assigned.

History File

The History File is a standard VSAM KSDS file containing purged Move Requests that were in a "Move Completed," "Back Out Completed," or "Deleted" status on the Pending File. These Move Requests are in the same format as those on the Pending File. There are also duplicated Control File records on the History File so that it is self-sufficient for reporting purposes. Also, any Move Levels that were deleted from your Control File are still retained on the History File if any Move Requests on the History File refer to those levels.

Model File

The Model File is a standard PDS that contains all CA-PanAPT models. The Modeling Facility allows CA-PanAPT to create customized JCL and control statements for each separate type of batch move, Retrieve, or development action to be done.

The CA-PanAPT model is a set of commands, operating system JCL, and utility control statements. The CA-PanAPT commands can query CA-PanAPT system information and user-defined parameters. These commands, based on individual values, control how the JCL and control statements are generated for each Move Request or Retrieve job stream.

Separate models can be set up for each different type of entity/library controlled by CA-PanAPT.

The CA-PanAPT installation tape contains sample Models for PDSs, CA-Panvalet, CA-Librarian, and for some other common entity/library types. You should copy and modify any Models that you require.

Additional points about models:

- Models are referred to in Library Code definitions, and in the Control File.
- Data for models comes from the Move Request, the Library Code, and the Inventory Record.
- Different Library Codes can use the same model because of the flexibility of the modeling language.
- Models can generate JCL or control statements.
- Separate models are used for turnover, Retrieve, and development processing in the same Library Code definition.

Types of Users

CA-PanAPT recognizes the following *classifications* of users:

- System Administrator
- Operations
- Group Administrator
- Users who share a common Group
- Owner of Move Requests
- Anyone

Your site can choose to assign abilities to users according to their group membership or on an individual basis.

Authorization

The following charts describe how authorization works. Each column heading represents a field in an Activity Record. To see the results of setting the Group Administrators? flag to Y, look in the Group Admin. column. You can see that System Administrators and Group Administrators in the Owner's group can perform the activity, and no one else. If more than one flag in the Activity Record is set to Y, any category with a Y in *any* column can perform the function.

The Owner of a Move Request is the user who added the Move Request. During User ID Maintenance, the Owner is the user ID being accessed.

The Owner of an Inventory Record is determined as follows:

- For Inventory Record Maintenance actions (Add, Change, Approve, Delete, Inquire), the permanent Owner of the Inventory Record (the user ID in the Owner field) is considered the Owner. If this field is blank, the assigned-to user for this record is considered the Owner.
- For Inventory Assignment actions (Assign, Retrieve, Transfer, Release), the user to whom the Inventory Record is assigned is considered the Owner. If the Inventory Record is not assigned, the permanent Owner of the record is considered the Owner. (In the case of Assignment, the assigned-to user ID is always blank, so the permanent Owner is always used.)

Note: The Operations category in the left-hand column should be taken to mean users with the Operations attribute who do not belong to any groups. A user ID with the Operations attribute can also belong to other categories. Group Admin. - same group means a user ID who is an administrator in the Owner's group. G.A. - other - shared group means a user ID who shares a group with the Owner and is an Administrator of a different group. G.A. - other - no shared group means a user who is a group administrator but does not share a group with the Owner.

The first chart describes authorization for activities pertaining to Inventory Records, Move Requests and User ID Maintenance.

Inventory Records/Move Requests/User ID Maintenance

Designator	Operations	Group Admin	Owner	Share Group	Anyone
System Administrator	Y	Y	Y	Y	Y
Operations	Y	N	N	N	Y
Group Admin - same group	N	Y	N	Y	Y
G.A. - other - shared group	N	N	N	Y	Y

G.A. - other - no shared group	N	N	N	N	Y
Share a group	N	N	N	Y	Y
Owner	N	N	Y	N	Y
Ordinary user - no shared group	N	N	N	N	Y

Other Activities

This chart describes authorization for all other activities. The concept of Owner, and sharing a group with the Owner, has no meaning for these activities.

Designator	**Operations**	**Group Admin**	**Owner**	**Share Group**	**Anyone**
System Administrator	Y	Y	Y	Y	Y
Operations	Y	N	N	N	Y
Group Admin - any group	N	Y	N	N	Y
Share a group	N/A	N/A	N/A	N/A	N/A
Owner	N/A	N/A	N/A	N/A	N/A
Ordinary user - no shared group	N	N	N	N	Y

Note: If a specific user ID is listed on an Activity Record, that user can always perform that activity. If a group is listed, any user in that group can always perform that activity, unless the user has been defined. No checking of groups or ownership is done in these instances.

Groups

A Group is a higher level classification for putting user IDs in the same category. You can use a Group to correspond with the natural structure of your organization. There is no single entry in CA-PanAPT files for a Group. CA-PanAPT stores information about Groups under Activities, Approvals, and User IDs.

You can authorize a Group or several groups to perform CA-PanAPT functions. The Group name is any combination of characters and can be up to eight characters long. When adding a user ID, you can assign up to five different groups to that user ID.

If a Group is given authorization to perform certain CA-PanAPT functions, every user who is a member of that Group is given authorization for those functions.

Note: CA-PanAPT does not validate the Group names when they are entered. The user must make sure that all spellings are correct.

CA-PanAPT provides a report that lists members in a Group and the activities members of a Group can perform.

Group Administrators

The Group Administrator is a classification that allows specified individuals to have special administrative authorization in a Group. You can indicate that a user is an administrator for a Group when you add that user to the group. A Group can have any number of Group Administrators.

User ID Maintenance

If Group Administrators are given authorization to perform User ID Maintenance, the Group Administrators must also have a group with the user ID being maintained.

Move Request and Inventory Records

If a Group Administrator is authorized to perform functions relating to a Move Request or Inventory Record, the Group Administrator must share a group with the Owner of the Move Request or Inventory Record.

Other Activities

Any other activity authorized to Group Administrators can be performed by any Group Administrator.

Approvals

There are two kinds of Approvals in the CA-PanAPT system:

- Move Request Approvals
- Inventory Approvals.

This subject gives you an overview of these approvals.

Move Request Approvals

As you establish each Move Request, it can require the approval of one or more users before the actual move takes place. You can define each user of CA-PanAPT, or a group of users, to grant approvals in a specific category.

With CA-PanAPT, approval requirements are based on the Library Codes associated with the Move Request. You can define up to 20 different approval categories for each Library Code. Separate levels of approval are available for Moves and Back Outs at each move level (such as quality assurance and production).

A Move Request can use one or more Library Codes. The move is not performed until all approvals for all Library Codes have been granted and the Move Date has been reached.

You can browse Move Requests requiring approvals, with the CA-PanAPT online system. In addition, CA-PanAPT generates reports that you use to notify approvers of pending Move Requests and to keep track of which approvals have already been granted. The report also shows which Move Requests have not been approved, and which are awaiting approval.

Inventory Approvals

CA-PanAPT lets you set up your system to require an authorized user to review inventory information about each member. Many sites incorporate this approval step to prevent incomplete or incorrect Inventory Record information from being added to the CA-PanAPT Inventory File.

You can specify in the Library Code definition if members must have an *approved* Inventory Record. If a member belongs to a Library Code that requires an approved Inventory Record, but has an unapproved Inventory Record, you cannot close any Move Requests that contain that member.

Verification Procedures

Programs or procedures can be written to analyze the contents of a Move Request and then post the results of their analysis through Verification. Each Move Request can require Verification from one or more of these procedures before the actual move takes place.

Verification Procedure requirements are based on the Library Codes associated with the Move Request. You can define up to 20 different Verification Procedures for each move level (such as quality assurance and production) for any Library Code.

A Move Request can use one or more Library Codes, and can then have multiple Verification Requirements. The move is not performed until all these requirements have been successfully obtained. Users can start Verification by accessing any one of the following online paths:

- Move Request Closure panel (using CLO/VER)
- Move Request Browse panel (using Browse line command RVP)
- Move Request Maintenance panel (using RVP option).

Each of the 20 possible Verification Procedures is defined in the Control File. Any defined category can be specified as a requirement when updating Library Codes.

CA-PanAPT generates reports that identify pending Move Requests that require verification. In addition, the CA-PanAPT online system browse function allows selection of Move Requests that are pending Verification.

Move Requests

A Move Request is a unit of work for CA-PanAPT. A Move Request keeps track of information for moving a set of entities from one set of CA-PanAPT libraries to another. The Pending File stores all information about Move Requests.

This subject covers the following topics:

- Move Request Status
- Assignment of Ownership
- Move Request Cycle
- Move Processing Cycles.

Move Request Statuses

During the cycle of a CA-PanAPT Move Request, the Move Request status indicates what events have occurred and what actions are required. Most of the statuses contain the move level to which they pertain. This is indicated by the word *level* for the full status name and by the letter *l* for the short status code; *level* actually contains the 1 to 4 character short name for the level, and *l* contains the 1 to 2 character abbreviation for the level. The Move Request statuses are:

Being Created (CRE)

The request is being created and updated by the request originator. While in this status, the request can be updated, but it cannot be approved. The Move Request remains in this status until it is closed by an authorized user. The originator can enter data about the move and augment or change it over a period of time to avoid last minute rushes.

Awaiting *level* App (AW *l*)

An authorized user closed the Move Request. If the Move Request includes any moves for levels before the one indicated in the status, those moves have been done. The Move Request includes at least one Library Code that has outstanding approvals to be granted or Verification procedures to be run for the specified level.

While it is in this status, authorized users can grant required approvals or run Verification procedures. The Move Request remains in this status until all approvals are granted and all Verification procedures run successfully. If the Move Request uses only Library Codes that do not require approvals or verifications for this level, then this status is bypassed entirely.

Approved for *level* (AP *l*)

All required approvals have been granted and all required Verification procedures have run successfully for the current move level. This status is set by CA-PanAPT when the last approval is granted and the last Verification procedure runs successfully. The Move Request remains in this status until CA-PanAPT batch job APJJ5310 is run and selects the Move Request for movement.

Selected for *level* (SL *l*)

Batch job, APJJ5310, has been run and has confirmed that this Move Request is to be processed. APJJ5310 selects Move Requests that:

- Have no outstanding approvals or verifications
- Meet the schedule Next Move Date criteria
- Have no outstanding member restrictions (optional).

The member restrictions that can be checked ensure that a Move Request doesn't get moved if it no longer has assignment of all of its members. It also ensures that the move is not attempted if the members to be moved are missing.

Awaiting *level* Moves (AM *l*)

The daily move job has started, but has not completed processing of this Move Request. The daily move job changes the status of this Move Request when the last member has been processed.

Awaiting *level* EP (AE *l*)

The daily move job has started, but has not completed processing this Move Request. The models for at least one Library Code indicate that further processing is required. For example, the model could have built JCL for another job to run after the move, such as a compile and link. These jobs are considered external processing.

The external processing must be completed (in this example the compile and link must be submitted and run) before this Move Request is complete in site-defined terms. The external processing job must include a step that invokes PROC APJP5391 to change the status of the Move Request to the next status.

Moved to *level* (MV *l*)

The jobs to perform the required moves have been created and those jobs have completed successfully. There are no further move levels for any members because either none of the Library Codes used any subsequent levels or because this was an early stop level for the Move Request. The Move Request remains in this status until:

- This Move Request is requested to be Backed Out.
- An authorized user changes the status to Deleted.
- The Move Request is purged from the Pending File.

Await *level* Bkot App (AW *l*-B)

An authorized user has scheduled the Move Request to be backed out from the current move level's libraries. The Move Request uses at least one Library Code that requires Back Out Approvals at the current move level, and there is at least one outstanding Back Out Approval. While in this status, only authorized users can grant the required approvals. The Move Request remains in the status until all approvals for Back Out have been granted. If the Move Request uses only Library Codes that do not require Back Out Approvals for this move level, then this status is bypassed entirely.

App for *level* Bkot (AP *l*-B)

All required Back Out Approvals have been granted, but Back Out processing has not begun. The Move Request is scheduled for Back Out and either the last Back Out Approval was granted, or there are not Back Out approvals required for the current move level. The Move Request remains in this status until CA-PanAPT batch job APJJ5310 is run to select the Move Request to be processed.

Sel for *level* Bkot (SL *l*-B)

Batch job, APJJ5310, has been run and has selected the Move Request for Back Out processing.

Awaiting *level* Bkot (AM *l*-B)

The daily move job, APJJ5320, has started but has not completed processing this Move Request for Back Out processing. The daily move job changes the status of this Move Request when the last member has been processed.

Await *level* Bkot EP (AE *l*-B)

The daily move job has started, but has not completed Back Out processing this Move Request. The models for at least one Library Code indicate that further processing is required. For example, the model could have built JCL for another job to run after the move, such as a compile and link. These jobs are considered external processing.

The external processing must be completed (in this example the compile and link must be submitted and run) before this Move Request Back Out is complete in site-defined terms. The external processing job must include a step that invokes PROC APJP5391 to change the status of the Move Request to the next status.

level Bkot Complete (MV l-B)

The jobs have been created to perform the Back Out and those jobs have completed successfully. The Move Request remains in this status until:

- An authorized user changes the status to Deleted.
- The Move Request is purged from the Pending File.

Deleted (DEL)

An authorized user has performed the Delete function against this Move Request. (The Delete function does not actually delete a Move Request, but flags the Move Request with a status of *Delete*.) A Move Request in this status cannot be updated or considered for Move selection processing. An authorized user can reset the status of a Deleted Move Request to *Being Created*.

Updating a Move Request

A Move Request is most commonly updated while in *Being Created* status. A Move Request can also be updated while in an Awaiting Approval status. However, the user **must** be authorized for the Activity MOVEREQ/CHGAWAPP. Every time a Move Request is updated all Approvals and Verifications that have been obtained are reset.

You cannot update a Move Request that is ready to be moved without changing its status first. Consequently, updating a Move Request re-initiates the approval cycle of that Move Request. A Move Request being processed for Back Out can never be updated.

Assignment of Ownership

You can assign the responsibility for a member to a CA-PanAPT user. You can use a security exit to ensure that only the assigned-to user can add a member to a Move Request. In this way, CA-PanAPT prevents the inadvertent update of a Production member by a careless or unauthorized action.

You can also assign members to Move Requests. This ensures that once a member has been added to a Move Request, no other Move Request can move the member until the first Move Request has moved the member all the way to its final destination. In the event of an emergency move you can transfer assignment to the emergency Move Request. The original Move Request is halted until assignment is transferred back. Use of this feature is optional.

Assignment and Release

You can assign or release member ownership automatically or explicitly using commands. You specify how CA-PanAPT performs the assignment or release when you set up the Library Code. Assignment can be enabled (required) or not.

Automatic Assignment

When Assignment is automatic, an unassigned member is assigned to the user who adds it to a Move Request.

Non-Automatic Assignment

When Assignment is required, but not automatic, you must manually assign the member. This is done from Move Request Maintenance or Inventory File Maintenance.

The assigned user of a member can release control of a member or can transfer control to another CA-PanAPT user. When a member is released, it is available for assignment to any other CA-PanAPT user and Move Request. When the assignment of a member is transferred, you can transfer it to another user, another Move Request, or both.

Automatic Release

You can implement CA-PanAPT to release assigned members for Library Codes automatically. When release is automatic, the member is released or reassigned when its Move Request is moved to its final destination. The final destination is either the highest move level used by all of the Library Codes of the Move Request, or the early stop level if specified. The Move Request that a member is assigned to can change when the member is deleted from a Move Request, or when the Move Request is moved to its final destination, regardless of whether or not Automatic Release is enabled. However, Assignment to the user is changed or released only if Automatic Release is enabled.

During the automatic reassign that takes place when a Move Request is moved to its final destination, you can optionally have CA-PanAPT set a concurrent development flag for all other instances of the reassigned members on other Move Requests. This serves to document that a concurrent change to a member has been moved, and that its changes should be accounted for in the new version of the member before the Move Request is closed. Move Requests cannot be moved or closed until all of their concurrent development flags have been manually reset.

Non-Automatic Release

You can also use a separate CA-PanAPT function to release ownership. When release is not automatic, you must explicitly release a member before it can be assigned to someone else.

Proper Assignment

When you close a Move Request or verify a Move Request for closing, CA-PanAPT checks each member for *Proper Assignment.* A site defines *Proper Assignment* by selecting a Close Assignment option (CLO) on the Control File Maintenance/System Information panels and by selecting a relationship to be tested for the MOVEREQ/CLOASSGN activity under the Control File Maintenance/Activity panels.

You can also require that inventory is assigned to a Move Request in order to close and move the Move Request. This is defined by selecting an appropriate Move Req Assignment Option on the Control File Maintenance/System Information panels.

Permanent Ownership

CA-PanAPT also allows a second type of member ownership - Permanent Ownership. The Permanent Owner is the user responsible for the entity when it is not assigned to anyone.

Retrieve

Retrieve copies assigned members to the starting library (commonly called the test library) of the associated Library Code. The Retrieve function is only active for those Library Code definitions that have Retrieve enabled and contain Retrieve model specifications. You can access the Retrieve function *explicitly* through the Inventory File Maintenance and Move Request Maintenance action of Assign and Retrieve (RET). When you use this action, CA-PanAPT displays all members successfully Assigned on a Retrieve Processing Options panel. A Retrieve job stream is generated from the selected options by the Retrieve model that is associated with the Library Code.

In addition, you can access the Retrieve function *implicitly* through the Move Request Maintenance of ADD, assign (ASN), change (CHG), or copy (COP), or the Inventory File Maintenance action assign (ASN). Members added to a Move Request that are processed by Assignment are also processed if the Library Code for the member meets the conditions above and:

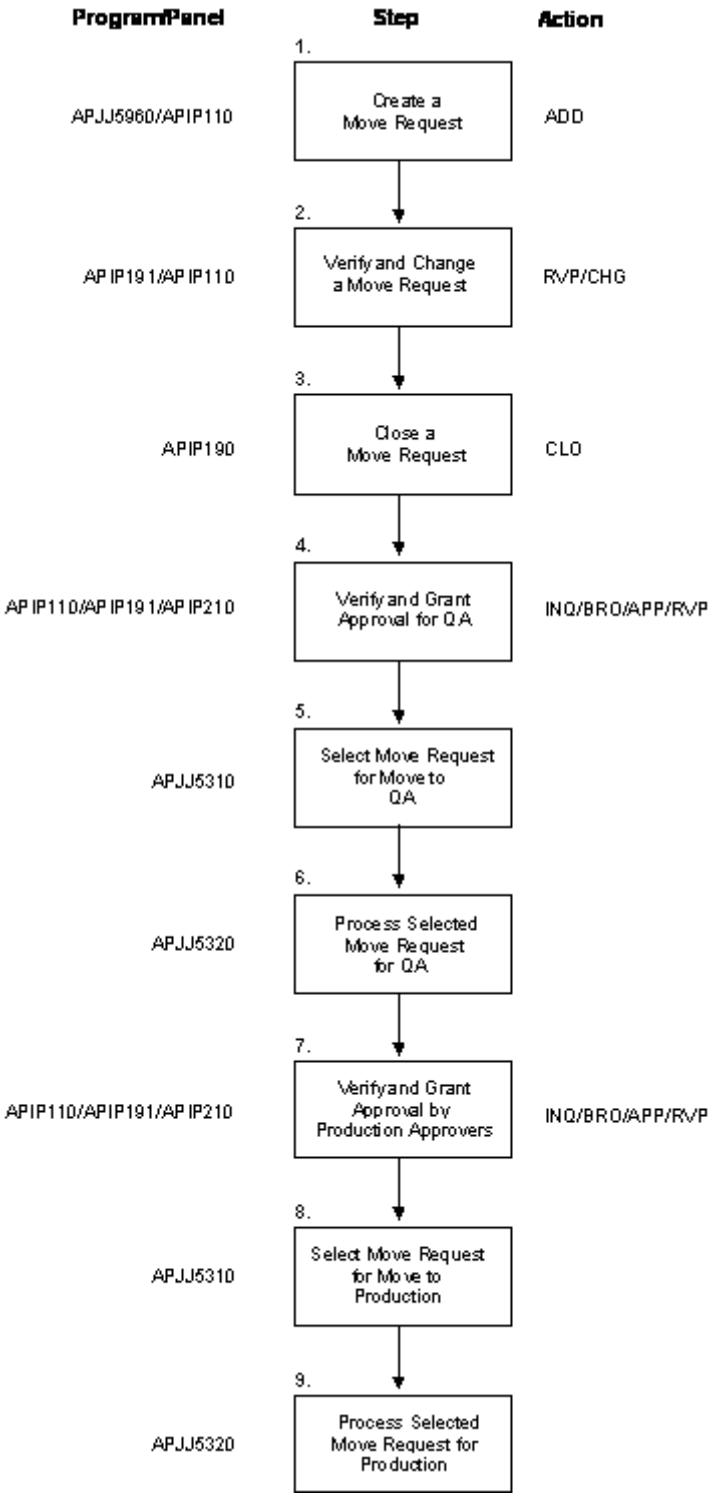
- Auto Assignment is enabled (except when action is ASN).
- Auto Retrieve is enabled.

As in the RET action, a Retrieve Processing Options panel displays all members successfully Assigned and with Retrieve enabled in the appropriate Library Code. A Retrieve job stream is generated using the options selected by the Retrieve model that is associated with each member.

Move Request Progression

The Move Request is key to the operation of CA-PanAPT. Each Move Request defines a logically complete unit of work for the turnover of related members into production. A Move Request is primarily a set of members from one or more Library Codes that are to be moved together. The members in a Move Request can be viewed as a group for purposes of describing, scheduling, approving, and finally moving into production libraries. Additionally, should problems arise in production after the move, the Move Request can be Backed Out as a whole.

The following exhibit shows the typical progression of a Move Request. This exhibit assumes configuration defaults: where the starting level is called Test, the final level is called Production or PROD, and there is a single intermediate level called Quality Assurance or QA.


Program/Panel
Step
Action
1.
APJJ5960/APIP110
Create a Move Request
ADD
2.
APIP191/APIP110
Verify and Change a Move Request
RVP/CHG
3.
APIP190
Close a Move Request
CLO
4.
APIP110/APIP191/APIP210
Verify and Grant Approval for QA
INQ/BRO/APP/RVP
5.
APJJ5310
Select Move Request for Move to QA
6.
APJJ5320
Process Selected Move Request for QA
7.
APIP110/APIP191/APIP210
Verify and Grant Approval by Production Approvers
INQ/BRO/APP/RVP
8.
APJJ5310
Select Move Request for Move to Production
9.
APJJ5320
Process Selected Move Request for Production

1. Creating a Move Request

The first step in creating a Move Request is to ADD it to the Pending file. You can do this by using the Move Request Maintenance ADD activity (panel APIP110), or the Batch Add Utility program (APCS5960). The new Move Request is assigned a unique number by CA-PanAPT, and the user creating the Move Request becomes the Owner.

The initial status of a new Move Request is *Being Created* (CRE). While in CRE status, members to be processed together are defined to the Move Request. Members of a Move Request can belong to many different Library Codes, and so, many different types of members such as source programs, JCL, object, panels, and documentation can be grouped and moved together.

2. Verifying and Changing a Move Request

A Move Request can be changed using the Move Request Maintenance CHG activity as long as it remains in CRE status. Depending upon the Library Codes to which the members of the Move Request belong, some Verifications can be required during this stage. Verifications are initiated by using the Move Request Maintenance RVP activity. Each time the Move Request is changed, Verifications are reset and must be run again.

3. Closing a Move Request

After the Move Request is complete and verified, it is ready to be closed. A Move Request can be closed using the Move Request Maintenance CLO activity (panel APIP190). Depending upon the Library Codes to which the members of the Move Request belong, certain criteria must be met for the close to be successful:

- Each member might require an approved Inventory Record.
- Every member must be properly assigned.
- Every member must pass the Member Existence Edit exit tests.
- No member can have the Concurrent Development flag set.

Library Codes can support Inventory, Assignment, and Member Existence in different ways. Proper assignment is also site-defined. Therefore, the specific requirements for successful close depend upon the members defined for the Move Request, and the CA-PanAPT options chosen.

No further changes can be made to a Move Request after it has been closed. Close sets the status of the Move Request to one of the Awaiting Approval (AW? where ? is the 1 to 2 character abbreviated level name) or Approved for (AP?) statuses depending upon the Library Codes. It is possible for a user to be authorized to make changes while the Move Request is in an Awaiting Approval status.

4. Verifying and Granting Approval for QA

Approval and Verification requirements for a Move Request are inherited from the various Library Codes to which the members of the Move Request belong. If one or more of the Library Codes requires QA level Approvals or Verifications, then these must be satisfied before the Move Request can be moved into QA. Close sets the status of the Move Request to *Awaiting QA Approval* (AWQ).

Users authorized to grant QA Approvals can review the Move Request and grant, revoke, or deny approval using the Move Request Maintenance INQ and APP activities. Move Requests with outstanding Approval Requirements appear on the APCS5111 batch reports. The *Browse Move Requests* selection criteria can also be used to select Move Requests based upon outstanding Approval or Verification Requirement category.

Verifications can be required during this stage. These can be initiated using the Move Request Maintenance RVP activity.

An authorized user can make changes to a Move Request while it is in AWQ status. However, doing so causes all of the Approvals and Verifications obtained so far to be revoked.

After all Approval and all Verification Requirements have been satisfied, CA-PanAPT changes the status of the Move Request to *Approved for QA* (APQ).

5. Selecting Move Requests for Move to QA

The Select Eligible Move Requests Job (APJJ5310) selects all Move Requests that are approved for Movement or Back Out whose scheduled move date has been reached. Move Requests in APQ status are selected if the QA Move Date has been reached or was not specified. Selection changes Move Requests from APQ status to *Selected for QA* (SLQ).

6. Processing Selected Move Requests for QA

The Process Selected Move Requests Job (APJJ5320) uses the CA-PanAPT Modeling Facility to create the JCL and control statements required to perform the actual movement into the QA libraries. It also uses the Member Posting Utility program (APCS5391) at various points to post the status of individual members being moved.

You can set any of the following flags for each member of a Move Request:

M

The member is to be moved as part of APJJ5320 processing. Movement may or may not have begun and is not yet complete.

E

A Model has indicated that External Processing is required for the member outside of APJJ5320.

S

External Processing has started for the member.Any combination of M, E, or S can be set for a member. After movement begins, a Move Request in APQ status is changed to *Awaiting QA Move* (AMQ) status. It remains in AQM status as long as at least one member still has the M flag set on.

As members are successfully moved into QA, their M flags are set to off. When all members in a Move Request have had their M flags set to off, the Member Posting Utility (APCS5391) changes the status of the Move Request from AWQ to one of the following:

AEQ Awaiting QA External Processing

The Move Request is being moved to the QA level. All member moves done as part of APJJ5320 have completed, but some of the members require external processing that has not completed. Some members have E flags or S flags, but all M flags have been removed.

AWP Awaiting Production Approvals

All M, E, and S flags have been removed from members. All APJJ5320 processing and external processing is complete for this stage. The Move Request has been moved to the QA level and includes at least one library code that requires Approvals or a Verification procedure to be run.

APP Approved for Production

This indicates that the Move Request has been moved to the QA level. All M, E, and S flags have been removed from members. All APJJ5320 processing and external processing is complete for this stage. No Approvals or Verification procedures are required for a move into Production.

MVQ Moved to QA

This indicates the Move Request was moved to the QA level. There were no more levels, either because QA was the last level used by any of the Library Codes participating in the Move Request, or because the Early Stop Level was set to QA. Processing is complete for this Move Request. All M, E, and S flags have been removed from the members.

The created JCL controls the actual movement of the entities. The JCL steps copy the entities from the Test to the QA Libraries, and then (depending on how the Library Code is set up) delete the copy on the Test Libraries.

At the end of APJJ5320, PROC APJP5395 updates the status of all Special Handling Move Requests to *Complete*. Note that Special Handling Move Requests have no members to move, so they are not updated by any of the member-processing steps. APJP5395 also produces several summary reports. Report APCS5395-01 lists the status of each Move Request that was originally selected. Report APCS5395-02 lists the Library Codes in which processing did not complete normally (according to the return codes in the JCL).

7. Verifying and Granting Approval by Production Approvers

If Production Libraries are defined as part of one or more of the Library Codes, and this Move Request is to move to Production, then the Move Request enters the *Awaiting Production Approval* status. Using the Move Request INQ and APP functions, the Production Approvers must review the Move Request, and grant the required approvals.

If any approval is still outstanding, this Move Request appears on the reports produced by CA-PanAPT Batch program APCS5111. Run this program regularly and distribute the output reports to the concerned parties.

When all approvals have been granted and all Verification procedures have run successfully, CA-PanAPT changes the status of the Move Request to the *Approved for Production* status.

8. Select Move Request for Move to Product

Batch job APJJ5310 is run and determines that the Move Request has received all required Production approvals, all required Production Verifications, and that the Move Date has been reached. The Move Request is marked as *Selected for Production*.

9. Process Selected Move Requests for Product

Batch job APJJ5320 is run. First, APJJ5320 uses the CA-PanAPT Modeling Facility to create the necessary JCL and control statements to perform the moves. It then executes PROC APJP5391 to initialize the status of each member of each Move Request. The status options are shown below:

M

Move has not completed

E

External Event required

S

External event has started processing (user-defined external processing, not set up as part of CA-PanAPT)

M, E, or S can be set for a member.

Subsequent steps of APJJ5320 actually perform the moves, or you can schedule and run separate jobs according to your site's requirements. The last step of each PROC in APJJ5320 must execute program APCS5391 to update the status of each member processed for that PROC. In many cases, the PROC performs processing for a single Library Code. When all members in the Move Request have been moved successfully and marked *Complete*, APCS5391 changes the Move Request status.

If the Move Request is being moved to PROD, APJJ5320 sets the status of the Move Request to:

AMP Awaiting Production Moves

This indicates that Move Request members are processed later in APJJ5320. Some members still have M flags. External processing might be required for some members.

The Move Request status is not changed again until all members to be moved in APJJ5320 have been moved successfully. When all members in the Move Request have had their M flags removed, APCS5391 changes the Move Request status to:

AEP Awaiting Production External Processing.

This indicates that the Move Request is being moved to the Prod level. All member moves done as part of APJJ5320 have completed, but some of the members still require other external processing (indicated by E flags on the members). Some members show S flags, indicating that external processing has started for those members.

When all external processing for the Move Request is completed (all M, E, and S flags have been removed from the members), the Move Request status is set to:

MVP Moved to Production

This indicates that the Move Request has been moved to the Prod level, and processing is complete.

These subsequent APJJ5320 steps control the actual movement of the entities. The steps copy the current Production entities to the Backup library (optional), copy the entities from the QA or Test libraries to the Production Libraries, and then (optionally, depending on how the Library Code is set up) delete the copy from the QA or Test libraries.

At the end of APJJ5320, PROC APJP5395 updates the status of all Special Handling Move Requests to *Complete*. Note that Special Handling Move Requests have no members to move. APJP5395 lists the status of each Move Request that was originally selected. Report APCS5395-02 lists the Library Codes for which processing did not complete normally (according to the return codes in the JCL).

Move Processing Cycles

Move Processing Cycles provide a conceptual framework for evaluating your Production turnover requirements. Move Requests are grouped together in cycles based on common timing requirements. For example, you might establish the following types of Move Processing Cycles:

- Schedule Move Requests for batch applications at noon, but schedule Move Requests for your online system for midnight, after the online system has come down. Establish different Move Processing Cycles for each group of Move Requests and schedule each cycle to run daily at the appropriate time.
- Provide for emergencies, for Move Requests that must be processed immediately, without regard to the status of processing for regularly scheduled Move Requests. Establish a Move Processing Cycle for emergency Move Requests only. That cycle is run on demand only when you must process an emergency Move Request. The normal cycle is run on a regularly scheduled basis.
- If some of your Move Requests depend on input from a source that cannot be regulated by time, establish a Move Processing Cycle that can be run regularly, but not at a preset time.

You can establish distinct Move Processing Cycles to be run periodically according to a schedule or on-demand at your site. Each cycle represents a different scheduling requirement for Move Request processing.

If you do not set up Move Processing Cycles on your own, CA-PanAPT uses a single cycle indicated by a Move Type of M. This is the default value for all panels.

Processing Run Cycle

A run of a Move Processing Cycle consists of all processing of Move Requests from the time they are scheduled for move processing until scheduled processing for all Move Requests is complete. For example, a run of a Move Processing Cycle might move entities from Test to QA for Move Request number 17, from QA to Production for Move Request number 12, and from Production to Back Out for Move Request number 3.

A Move Request is always processed by a single Move Request cycle. After the Move Request is closed, one run of the cycle moves entities from the TEST to the QA level and a subsequent run moves them from the QA to the Prod level.

A run of a Move Processing Cycle starts when you run job APJJ5310 to select the Move Requests for processing. The run ends when all selected Move Requests and their associated entities have been successfully processed by APJJ5320 and any external processing that is required (external to job APJJ5320, such as assembling a source module) has been performed.

CA-PanAPT supports the running of up to 36 concurrent Move Processing Cycles.

Move Cycle Control

The Move Request field (Move Type) specifies the cycle in which the Move Request is processed. A Move Request is always processed by a single Move cycle. The letters A-Z and numerals 0-9 designate the cycle.

All Move Requests created before CA-PanAPT Version 1.2 have a Move Type of M. A cycle designator has no meaning to CA-PanAPT other than using the value of M as the default for Move Type and to provide for compatibility with previous versions of CA-PanAPT.

Each Move Processing Cycle uses its own work data sets for APTMDLO to post status, release assignment, and select Move Requests. Therefore, each cycle is independent of every other cycle.

The Move Request status is kept in the CA-PanAPT Pending file. Therefore, you can browse Move Requests from any cycle or cycles from the same panel.

Setting Up for Move Cycles

You set up a Move Processing Cycle by making copies of jobs APJJ5310, APJJ5311, and APJJ5320 and changing them. Jobs in each cycle must allocate work data sets (for example, APTMDLO), but those data sets must be different for each cycle. However, the CA-PanAPT VSAM data sets must be the same data sets for each Move Processing Cycle. You need different sets of jobs for each cycle. See the Daily Processing chapter of this guide for specific requirements.

Establish the scheduling criteria for each cycle. Decide whether the cycle runs periodically or on-demand. If it is run on-demand, determine who initiates a run of the cycle and how it is to be done.

After you have established a cycle, specify that a Move Request is to be processed in that cycle. To process a Move Request in a move cycle, enter the cycle designator for the selected cycle in the Move Type field for this Move Request. Close the Move Request and grant any approvals that can be required.

Job APJJ5310 uses a parameter to determine which Move Processing Cycles to select. Change the parameter to use the cycle designators you have chosen to process during this cycle. APJJ5310 and APJJ5320 also use another parameter, that is part of the data set name, to distinguish the output files produced during each Move Processing Cycle. When you set up a cycle, choose a name that represents the designator for this cycle. This can be as simple as the one-character cycle designator, but it must not begin with a numeric value. See the Batch Component chapter for details on these two parameters.

Grouping Move Requests to a Move Cycle

To find out which Move Requests belong to which Move Cycle, use the Move Request Browse (BRO) function. Type the cycle designator in the Move Type field on the panel and press ENTER. A list is displayed of all Move Requests that are currently part of this Move cycle. See the "Move Requests" chapter for details on browsing.

CA-PanAPT Security

CA-PanAPT security centers around the authority to perform CA-PanAPT activities. As part of CA-PanAPT implementation, you can update the security authorization for each CA-PanAPT activity to designate who can perform each activity.

CA-PanAPT also interfaces with external security products such as CA-ACF2, CA-Top Secret, and IBM RACF to perform an additional security check on attempted activities. For more information, see Update Your Security System in the chapter "Installation and Customization Using SMP/E" in the *CA-PanAPT Getting Started Guide*.

Security Approaches

CA-PanAPT lets you use the following security approaches:

- Allow the user to be the Owner of a Move Request. As an Owner the user is given authority to perform certain functions for that Move Request.
- Give approval authority to an individual user so that he or she can grant Approvals for any or all of the 20 Approval categories.
- Make the user a member of a group and give this group the authority to perform certain functions. For example, a site can set up one group for System Programmers, one for Production Control, and one for Project Leaders. Each user can be assigned to up to five groups or no groups at all.
- Designate the user as an administrator of a group. As administrator, the user is given authority to perform certain functions.
- Restrict a user from using any CA-PanAPT functions.
- Authorize a user to perform default CA-PanAPT functions.
- Give the user the Operations attribute. The user is then able to perform the activities authorized to Operations.
- Designate the user as a CA-PanAPT System Administrator. The user is then able to perform all CA-PanAPT activities.
- Supersede CA-PanAPT internal security through the use of a user-written Security Exit Program. To identify the activities covered by this exit, see "User Exits" appendix in the *CA-PanAPT Administrator Guide.*

Security Methodology

When a user attempts to use CA-PanAPT, a check is performed to see if the user has been registered to CA-PanAPT.

If the user has been registered to CA-PanAPT, a check is performed to determine what authority, groups, and approval categories have been assigned to that user. This information is on the CA-PanAPT Control File.

If the user has not been registered to CA-PanAPT, the user is assigned the authority of the default user (defined as User ID *DEFAULT). The default user is authorized to perform specific CA-PanAPT activities, can belong to specified groups, and have specific approval categories.

The default user can be specified during or after CA-PanAPT implementation. You specify the default user using the Control File functions.

To prevent a user from accessing CA-PanAPT, you can disallow use of his or her Signon ID as part of User ID Maintenance.

To prevent users not specifically registered to CA-PanAPT from accessing the system, you can disallow use of the *DEFAULT Signon ID.

To prevent users from adding members to a Move Request or approving a Move Request through an in-house Security package, you can implement a user-written Security Exit Program (see the *CA-PanAPT Administrator Guide,* Appendix B, "User Exits").

Logic Flow for CA-PanAPT Security

The CA-PanAPT process for granting authority follows. It is assumed that you know what the user ID authority is, and if there is an Owner, the Owner Authority. It is also assumed that you know the activity or activities being processed. For additional information, refer to the CA-PanAPT Activity List exhibit in the Control File chapter.

1. The user ID is checked for CA-PanAPT sign on.
2. Users that are defined in a denied class are rejected. The three classes of users that can be denied are: Operations, Owners, and Anyone.
3. If this is an approved activity (MOVEREQ/APM-level or MOVEREQ/APB-*level* where *level* is the 1 to 4 character short name for a level), then user approval categories are checked. If the user has authorization for the category, then processing continues with Step 4. (One more test must be approved.) Otherwise, the authorization is rejected.
4. If the owner field is blank, then give all Group Administrators authority. Otherwise, authorize Group Administrators sharing a group with the Owner.
5. Check if the user is in the class Operations, and the activity allows Operations, then the user is approved.
6. Check if the user is the Owner, and the activity allows the Owners, then the user is approved.
7. Check if anyone (everyone) can do this activity, then authorization is granted.
8. If there is an Owner, then check for users sharing a group. (That is all users that are in a group with the Owner are considered to be sharing a group. Except the Owner which is not considered to be part of the group.)
9. Check if the user is listed, (the following user IDs), if so, then authorization is granted.
10. Check if the user is in a group listed (the following Groups), if so then authorization is granted.

If the user has not been authorized at this point, the user is rejected.

Chapter 2: Control File

This section contains the following topics:

About the Control File (see page 56)
Control File Description (see page 56)
Control File Maintenance (see page 60)
User ID Maintenance (see page 63)
Activity Maintenance (see page 67)
System Information (see page 76)
System Security Information Maintenance (see page 93)
Verification Procedures Maintenance (see page 95)
Library Level Maintenance (see page 98)
Access Method Maintenance (see page 102)
Configuration Manager Information Maintenance (see page 107)

About the Control File

The CA-PanAPT Control File keeps track of system and security information for the entire CA-PanAPT system. This chapter describes the contents of the Control File and explains how to maintain it.

This chapter covers these subjects and topics:

- Control File Description
- Control File Maintenance
  - System Information Maintenance
  - System Security Information Maintenance
  - User ID Maintenance
  - Activity Maintenance
  - Verification Procedure Maintenance
  - Library Level Maintenance
  - Access Method Maintenance
  - CA-Pan/LCM Configuration Manager Information Maintenance

Control File Description

The CA-PanAPT Control File keeps track of system wide information: system information, security information about user IDs, activities, and groups. CA-PanAPT also lets you generate reports on all of this information. This topic describes these features of the Control File.

System Information

CA-PanAPT includes the following fields of system information:

Field	Description
System Identifier	If your organization has multiple installations of CA-PanAPT, this identifies the separate systems on your reports.
Company Name	Normally defined as your company name, appears on the second line of all CA-PanAPT reports.
Date Format Date Separator	Indicate how dates are entered and how they appear on panels and reports.
Time Separator	Indicates how times appear on panels and reports.
Default Library Codes	Displayed on the Member Moves panel when you add members to a Move Request. Select these Library Codes to minimize typing by users who add members to Move Requests. You can add members by copying, then making changes, rather than rekeying everything.
Expanded Description Required	Indicates whether the expanded description is required or optional.
Approval Comments Required Disapproval Comments Required	Indicate whether the comments at approval and disapproval time are required or optional.
Close-assignment option	Used with the Control File activity record MOVEREQ/CLOASSGN to determine the required user ID relationships at close time.
Unit field	Allocates temporary data sets for retrieve using the TSO submit method for Online Reports.
Report file Submit file	Contain the DCB information that is used during retrieve and Online Report generation.
Retrieve Job Submission Method	Specifies how all retrieve jobs are submitted for this site.
Reassign/Transfer Flag	Indicates whether assignment is transferred to another user during Reassign/Release processing.
Move Req Assignment Option	Controls how Inventory Assignment works in conjunction with Move Requests
Concurrent Development Options for the Development Facility	Defines when users are notified of concurrent development events.

Field	Description
Approval Category Description	Associates text with each of the 20 approval categories. The descriptions appear on batch reports and can be displayed online.
Security Exit Program Status Security Exit Program Name	Allow further restrictions to exist in the CA-PanAPT environment through the use of an in-house Security package (see the *CA-PanAPT Administrator Guide*.
Verification Procedure Category Descriptions	Associate text with each of the 20 verification categories. The descriptions appear on batch reports and can be displayed online.

User IDs

CA-PanAPT allows the definition of individual user IDs and their capabilities. All System Administrators can perform this definition, but you can also authorize other personnel to perform user ID definitions.

Users fall into two broad categories: normal users and defined users. Normal users are defined to CA-PanAPT through the default user ID. Defined users are defined individually to CA-PanAPT.

The default user ID is defined to CA-PanAPT as *DEFAULT. Any CA-PanAPT user who is not specifically defined can only perform the activities allowed by the default user ID. Consequently, the default user ID determines the permissible activities for the normal user. If desired, you can set the *DEFAULT User ID so that users not specifically defined to CA-PanAPT cannot access any CA-PanAPT functions.

Defined users are explicitly added to the system through the Control File maintenance and are allowed to perform their own set of activities.

Activity Records

Activities refer to what the CA-PanAPT system lets you do (for example, setting up Library Codes and adding Move Requests).

The Control File keeps one record for each CA-PanAPT activity that can be performed in the CA-PanAPT system.

The security established for each activity is defined in the activity records. This security defines which types of users can perform which activities. It also defines which user IDs and groups can perform which activities. CA-PanAPT System Administrators can perform all activities on the CA-PanAPT system.

You can activate a Security Exit Program for certain activities to further control usage in the CA-PanAPT environment. The Program is activated with an in-house security package (see the "User Exits" appendix in the *CA-PanAPT Administrator Guide*).

Generating Reports

You can generate reports of all Control File information by running batch job APJJ5103. These reports give the following information for each aspect of the Control File:

Report	Description
System Information	Shows the current value of all global information, values, and options
System Security Information	Shows the current Security Exit Program Status and name
User IDs	Shows all current CA-PanAPT user IDs with corresponding approval authorizations and group membership
Activity Records	Shows all current CA-PanAPT activities with corresponding security definitions
Levels	Shows all move levels, their descriptions, and their statuses

CA-Pan/LCM Configuration Manager Information	Shows the values of the Configuration Manager fields

You can generate a cross-reference report for Approval Categories by running batch job APJJ5104 or, under ISPF, by selecting APCS5104 from the Online Reports Facility. The report shows this information for each category:

- The description of the category
- The user IDs that can issue the approval
- The Library Codes that require the approval.

You can generate a cross-reference report for Groups by running batch job APJJ5105 or, under ISPF, by selecting APCS5105 from the Online Reports facility. The report shows the following information for each group:

- The users who belong to the group
- The group administrators
- The authorized activities for the group.

Control File Maintenance

This subject shows you how to maintain and update the Control File. The final subjects show how to maintain and update system information, user IDs, and activities.

Control File Maintenance Entry Panel

To access the Control File Maintenance Entry panel from the CA-PanAPT Main Menu, select the Control File Maintenance Function (type **CTL** or **C** in the Action field and press ENTER). The Control File Maintenance Entry panel, APIP990 displays.

Panel Field Descriptions

Enter Action

Select one of the following values:

- ADD (or A)—Add Control File data
- CHG (or C)—Change (update) Control File data
- DEL—Delete Control File data
- INQ (or I)—Inquire (browse) Control File data

Restrictions:

- You cannot add or delete system information, or CA-PanAPT activities on the Control File. To restrict an activity, update (CHG) the activity so that no user can use it.
- You cannot add or delete Verification Procedure categories from this panel. To update Verification Procedure categories, use action change (CHG). The Verification Procedures Maintenance panel displays.
- Only a CA-PanAPT administrator can delete another CA-PanAPT administrator.
- CA-PanAPT administrators cannot delete their own user ID.
- CA-PanAPT administrators cannot change their own Administrator status.
- Only a CA-PanAPT administrator or group administrator can delete a group administrator.
- An authorized user can ADD, CHANGE, or DEL other users at the authorized user's security level (CA-PanAPT Administrator, group administrator, normal user) or lower.

Select

Enter any non-blank character in one of the Select fields next to the record type you want to maintain.

User ID

If the Action is ADD (or A), enter any valid one to eight character TSO user ID that is not already defined to CA-PanAPT.

If the Action is CHG (or C), DEL, or INQ (or I), enter any valid one to eight character TSO user ID that is already defined to CA-PanAPT. See your batch report APCS5103-01 for a list of user IDs currently defined to CA-PanAPT.

Selecting this field displays the User Id Maintenance panel. Refer to that panel for more information.

Activity

If the Action is CHG (or C) or INQ (or I), specify any valid CA-PanAPT activity. See your batch report APCS5103-01 for a list of CA-PanAPT activities currently defined to CA-PanAPT.

Selecting this field displays the Activity Maintenance panel. Refer to that panel for more information.

System info

Selecting this field displays the System Information Maintenance panel. Refer to that panel for more information.

System Security Info

Selecting this field displays the System Security Information Maintenance panel. Refer to that panel for more information.

Verification Procedures

Selecting this field displays the Verification Procedure Maintenance panel. Refer to that panel for more information.

Library Level Maintenance

Selecting this field displays the Library Level Maintenance panel. Refer to that panel for more information.

Access Method Maintenance

Selecting this field displays the Access Method Selection List panel if the Access Method is left blank, or the Access Method Maintenance panel if the Access Method is provided. Refer to these panels for more information.

CA-Pan/LCM Configuration Manager info

Selecting this field displays the Configuration Manager Information Maintenance panel. Refer to that panel for more information.

Final Panel Processing

Select the desired activity and the Control File record you want to maintain. After all necessary fields are filled in, press ENTER. You transfer to another panel to process your selected item for system information, a user ID, or an activity. These panels are described in the rest of this chapter.

Discontinue Processing

To exit this activity without completing the action, enter the **END** command (PF3). You then return to the CA-PanAPT Main Menu panel.

User ID Maintenance

All user ID maintenance is done from the User Id Maintenance panel, APIP991.

User Id Maintenance Panel

To access the User Id Maintenance panel from the CA-PanAPT Main Menu, type **CTL** or **C** in the Action field and press ENTER. The Control File Maintenance Entry panel displays.

From the Control File Maintenance Entry panel, type:

- a maintenance action in the Action field
- any non-blank character in the Select field next to user ID
- a one- to eight-character TSO user ID in the User ID Key field.

Press ENTER and the User Id Maintenance panel, APIP991 displays.

Press ENTER key to process; Enter **END** command to terminate.

Panel Field Descriptions

Action

Display only. Displays the action that you entered on the previous panel.

User Id

Display only. Displays the user ID that you entered on the previous panel.

Administrator?

Required. Valid values: Y (Yes) or N (No):

Y

This user is a CA-PanAPT System Administrator. All CA-PanAPT System Administrators can perform all CA-PanAPT activities.

N

This user is not a CA-PanAPT System Administrator.

An unlimited number of CA-PanAPT administrators can be defined. We recommend you always define at least two administrators.

Allow use of this signon?

Required. Valid values: Y (Yes) or N (No):

Y

This user ID is allowed to perform all CA-PanAPT activities.

N

This user ID is not allowed to perform any CA-PanAPT activities.

Note: If you updated the default user ID to N, only defined users (users who are specifically registered to CA-PanAPT) are able to use the online system.

Operations?

Required. Valid values: Y (Yes) or N (No):

Y

This user is considered part of Operations. This attribute is generally assigned to users responsible for the daily operation of the CA-PanAPT system-PanAPT activities.

N

This user is not considered part of operations.

Operations is not a CA-PanAPT group. Certain CA-PanAPT activities can be assigned or allowed to Operations. Any user who is designated part of Operations is then able to perform all of these activities.

There is no limit to the number of user IDs who can be given Operations capabilities.

Group Information

The ability to perform CA-PanAPT activities can be assigned by user ID, by user group, or by user category. When a user is part of a group, that user is given the ability to perform CA-PanAPT activities that are authorized for that group. Each group can have one or more Group Administrators. The ability to perform specific CA-PanAPT activities can be restricted only to Group Administrators of certain groups. A single user ID can be included in a maximum of five groups.

See Types of Users and Groups in the System Overview chapter for more information about how CA-PanAPT determines authorization for group administrators and members of groups.

Group

Optional. Length: 1-8. Type: alphanumeric.

Specifies a group ID to which the user is assigned. Valid values are 1 to 5 valid Group IDs or blank.

It is possible to assign a group name that has no CA-PanAPT activity capabilities to a user ID.

CA-PanAPT does not edit the group name. It is up to the user to establish that the group name corresponds to the group name desired.

Group Administrator

Required when group is specified. Length: 1. Type: alphabetic. Valid values are Y (Yes) or N (No) (when the group is filled in) or blank (when the group is not filled in):

Y The user ID is considered an Administrator for this group.

N The user ID is not considered an Administrator for this group.

Approval capabilities

Required. Length: 1. Type: alphabetic and national character. Valid values are Y (Yes) or . (period):

Y

This user has been assigned the ability to grant that approval.

period (.)

This user is not allowed the ability to grant that approval.

There are 20 approval categories, numbered from 1 to 20. In this field you indicate which, if any, of these approvals this user ID is able to grant. A user can be allowed to perform all 20 approvals, no approvals, or any combination of approvals.

Enter a Y in the desired approval categories and a . (period) if the user is not allowed approval capabilities.

Final Panel Processing

When you have viewed or updated data on this panel as desired, press ENTER. CA-PanAPT updates the Control File with the data that was entered. You then return to the Control File Maintenance Entry panel.

Discontinue Processing

To exit this function without completing the action, enter the **END** command (PF3). You then return to the Control File Maintenance Entry panel.

Activity Maintenance

All activity maintenance is performed from the Activity Maintenance panel, APIP992.

Note: CA-PanAPT also interfaces with external security products that perform an additional security check on attempted activities. For more information, see the Update Your Security System step in the chapter "Installation and Customization Using SMP/E," in the *CA-PanAPT Getting Started Guide*.

Activity List

The following table describes all of the activities on the CA-PanAPT system.

Note: ???? is replaced with the level names used at your site. The short names of the level (1 to 4 characters) are used.

Activity Name	Description	Security Exit Invoked?	Owner Field Independent?
CTL/ENTRY	Control File Maintenance Entry		Y
CTLACT/CHG	Control File Activity Change		Y
CTLACT/INQ	Control File Activity Inquire		Y
CTLSYS/ADD	Control File System Information Add (for adding CA-Pan/LCM Configuration Manager information)		Y
CTLSYS/CHG	Control File System Information Change		Y
CTLSYS/DEL	Control File System Information Delete (for deleting CA-Pan/LCM Configuration Manager information)		Y
CTLSYS/INQ	Control File System Information Inquire		Y
CTLUSER/ADD	Control File User ID Add		Y
CTLUSER/CHG	Control File User ID Change		

Activity Name	Description	Security Exit Invoked?	Owner Field Independent?
CTLUSER/DEL	Control File User ID Delete		
CTLUSER/INQ	Control File User ID Inquire		
DEV/ENTRY	Development Facility Entry		Y
DEV/MM	Development Modify Members Command		
DEV/PRINTTBL	Development Print Move Request Member Table		
DEVADMIN/ENTRY	Project Administration Entry		Y
INVENTRY/ADD	Inventory Add		Y
INVENTRY/APP	Inventory Approve		
INVENTRY/ASN	Inventory Assign		
INVENTRY/CHG	Inventory Change		
INVENTRY/DEL	Inventory Delete		
INVENTRY/ENTRY	Inventory Maintenance Entry		Y
INVENTRY/INQ	Inventory Inquire		
INVENTRY/REL	Inventory Release		
INVENTRY/RET	Inventory Assign and Retrieve		Y
INVENTRY/TRN	Inventory Transfer		
LIBCODE/ADD	Library Code Add		Y
LIBCODE/CHG	Library Code Change		Y
LIBCODE/COP	Library Code Copy		Y
LIBCODE/DEL	Library Code Delete		Y
LIBCODE/ENTRY	Library Code Maintenance Entry		Y
LIBCODE/INQ	Library Code Inquire		Y
LIBCODE/SECURITY	Library Code View Security Codes		Y
MEMBER/BROWSE	Browse a Member		

Activity Name	Description	Security Exit Invoked?	Owner Field Independent?
MEMBER/CHECKIN	Checkin a Member		
MEMBER/ CHECKOUT	Checkout a Member		
MEMBER/COMPARE	Compare Members		
MEMBER/COMPILE	Compile a Member		
MEMBER/COMPLINK	Compile and Link a Member		
MEMBER/EDIT	Edit a Member		
MEMBER/HISTORY	View Member History		
MEMBER/LINK	Link Edit a Member		
MEMBER/LISTING	View a Member's Output Listing		
MEMBER/MERGE	Merge Members		
MEMBER/OUTPUTCP	View Member Compare Output		
MEMBER/ OUTPUTMG	View Member Merge Output		
MEMBER/UTILITY	Member Utilities		
MEMBER/XIR	View Member Cross Reference		
MOVEREQ/ADD	Move Request Add		Y
MOVEREQ/APB-????	Move Request Approve for Back Out at level ????	Y	
MOVEREQ/APM-????	Move Request Approve for Move at level ????	Y	
MOVEREQ/BAK	Move Request Back Out		
MOVEREQ/BRO	Move Request Browse		Y
MOVEREQ/CHG	Move Request Change (for Move Requests being created)		
MOVEREQ/ CHGAWAPP	Move Request Change (for Move Requests awaiting Approvals)		
MOVEREQ/CLO	Move Request Close		

Activity Name	Description	Security Exit Invoked?	Owner Field Independent?
MOVEREQ/ CLOASSGN	Move Request Assignment Test at Close		
MOVEREQ/COP	Copy Move Request		
MOVEREQ/CR	Copy a Move Request for Rework		
MOVEREQ/DAT	Move Request Change Date		
MOVEREQ/DEL	Move Request Delete (for Move Requests being created)		
MOVEREQ/ DELCLOSD	Move Request Delete (for Closed Move Requests)		
MOVEREQ/ENTRY	Move Request Maintenance Entry		Y
MOVEREQ/INQ	Move Request Inquire		
MOVEREQ/MEMBER	Move Request Member Add	Y	
MOVEREQ/MEMCHG	Move Request Member Change	Y	
MOVEREQ/MEMDEL	Move Request Member Delete	Y	
MOVEREQ/ MEMPURGE	Move Request Member Purge	Y	
MOVEREQ/PRT	Move Request Print		
MOVEREQ/RVP	Move Request Run Verification		
MOVEREQ/STA	Move Request Status		
PROJECT/ADD	Add a Project		Y
PROJECT/CHG	Change a Project		Y
PROJECT/DEL	Delete a Project		Y
PROJECT/INQ	Project Inquiry		Y
REPORT/APCS5104	Online Approval Category Cross-Reference Report		Y
REPORT/APCS5105	Online Approval Group Cross-Reference Report		Y
REPORT/APCS6111	Online Assignment Report		Y

Activity Name	Description	Security Exit Invoked?	Owner Field Independent?
REPORT/ENTRY	Online Report Entry		Y
USERLIB/CHG	Change User Work Libraries		Y
USERLIB/INQ	User Work Library Inquiry		Y

Activity Maintenance Panel

To access the Activity Maintenance panel, type **CTL** or **C** in the Action field of the CA-PanAPT Main Menu and press ENTER. The Control File Maintenance Entry panel displays.

From the Control File Maintenance Entry panel, type:

a maintenance action in the Action field

any non-blank character in the Select field next to Activity

a valid CA-PanAPT activity (see batch report APCS5103-01 for a list of activities and authorized users).

Press ENTER and the Activity Maintenance panel, APIP992, displays.

Panel Field Descriptions

Action

Display only. This field displays the action that you entered on the previous panel.

Activity

Display only. This field displays the activity that you entered on the previous panel.

Allow this activity by

In order for users to be granted access to the activity, they must be defined to one of the user ID classifications, or The following User Id(s), or The following groups(s) fields on this panel.

The fields: Operations?, Group Administrators?, Owner?, Users sharing a group?, and Anyone? are user ID classifications. An N in any of these fields causes the user security exit to be bypassed for that classification (CA-PanAPT does not use this field to determine if the user can perform the activity.)

Operations?

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes), N (No), or D (Deny):

Y

All user IDs that have been given the Operations attribute can perform this CA-PanAPT activity.

N

This class of user is not checked.

D

All user IDs that have not been given the Operations attributes cannot perform this CA-PanAPT activity.

Security Exit Status

Required. Length: 1. Type: alphabetic. Valid values: A (Active) or I (Inactive):

A

A Security Exit Program is active for this CA-PanAPT activity.

I

The Security Exit Program is inactive for this CA-PanAPT activity.

This field is displayed only if it is applicable for this activity.

Group Administrators?

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

If this activity pertains to Inventory Records, Move Requests or User ID Maintenance, a Y in this field indicates that any user who is a Group Administrator in a group which the Owner of the record is in can perform this function. If there is no Owner for the activity, a Y in this field indicates that a user who is a Group Administrator in any group can perform this function.

Owner?

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes), N (No), or D (Deny):

Y

The Owner of the record in question can perform this activity on that record.

N

This class of user is not checked.

D

The Owner of the record in question cannot perform this activity on that record.

If one of the other user ID classifications is specified as Y, and the Owner is specified as D, the user can perform the activity if they are not the Owner. This is useful to prevent users from approving their own work.

The Owner of a user ID record is the user ID being accessed. The Owner of a Move Request is the user who added the Move Request.

The Owner of an Inventory Record is determined as follows:

- If the action being performed is Add, Approve, Change, Delete, or Inquire, the Owner is the Permanent Owner, that is, the user ID in the Owner field of the Inventory Record. If the record has no Permanent Owner, the user ID that the record is assigned to is considered the Owner.
- If the action is Assign, Retrieve, Release, or Transfer, the assigned-to user ID is considered the Owner of the record. If the record is not assigned, the Permanent Owner is used (which is always true if the action is Assign, and is never true if the action is Transfer or Release).

Users sharing a group?

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

All user IDs that share a group with the originator of the Move Request, the Owner of an Inventory Record, or the user ID being accessed in User ID Maintenance can perform this activity on the specified record.

N

This class of user is not checked.

The Owner is not considered to share a group with themselves. See above for more information about how the Owner of a record is defined.

If the Owner of an Inventory Record is a group, that group must be defined to CA-PanAPT as a user ID, and the group name must be included in the Group Information section of its own user ID Record.

Follow these steps to allow access to a record by members in a group:

Include the group name on the User Id Maintenance panel for each user in the group.

Enter Y on this panel for Users sharing a group?.

No users in the group can access this activity if the following conditions exist:

- The group is included when registering a user ID.

- An N is entered for Users sharing a group?.
- The group is not included under The following group(s):.
- The Inventory Record is neither owned by a user in the group nor owned by the group.

All users in the group can access this activity if the group is included when registering a user ID and either:

- A Y is entered for Users sharing a group?, the group is not included under The following group(s):, and the Inventory Record is owned by a user in the group.
- The group is included under The following group(s):. In this case, any user in the group can access any record, regardless of the Owner.

Anyone?

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes), N (No), or D (Deny):

Y

Any CA-PanAPT user can perform this activity.

N

This class of user is not checked.

D

Any CA-PanAPT user cannot perform this activity.

The following User Id(s)

There are ten fields for the entry of up to ten specific CA-PanAPT user IDs that are specifically and separately authorized to perform this activity.

The following group(s)

There are ten fields for the entry of up to ten specific user-defined group Ids. Users who are members of any one of the given groups are then given authority to perform this CA-PanAPT activity on any record.

Note: CA-PanAPT does not edit the group name. It is up to the user to establish that the group name entered corresponds to the group name desired.

Final Panel Processing

When you have completed viewing or updating data on this panel, press ENTER. CA-PanAPT takes the requested action and updates the Control File with the data you entered. You then return to the Control File Maintenance Entry panel.

Discontinue Processing

If you want to exit this function without completing the action, enter the **END** command (PF3). You then return to the Control File Maintenance Entry panel.

Note: To restrict an activity, update (CHG) the activity so that no user (except the CA-PanAPT systems administrator) can use it by placing a D for Anyone.

You can also activate the Security Exit Program to further control the usage of selected activities by denying Anyone. This is done by placing a D for Anyone.

System Information

System Information maintenance begins with the first System Information Maintenance panel, APIP993.

System Information Maintenance Panel 1 of 3

To access the System Information Maintenance panel from the CA-PanAPT Main Menu, type **CTL** or **C** in the Action field and press ENTER. The Control File Maintenance Entry panel displays.

From the Control File Maintenance Entry panel, type:

- a maintenance action in the Action field
- any non-blank character in the Select field next to System Info.

After typing this information, press ENTER to display the first System Information Maintenance panel, APIP993.

Panel Field Descriptions

Action

Display only. This field displays the action that you entered on the previous panel.

System Identifier

Optional. Length: 1-4. Type: alphanumeric.

This field identifies the system. For example, you can have multiple separate CA-PanAPT systems in use at your site. A System Identifier of SYSA could identify one system and SYSB could identify the other. The System Identifier appears on all CA-PanAPT reports.

Company Name

Optional. Length: 1-40. Type: alphanumeric.

Type information or leave blank. Type up to 40 characters for your company name as you expect it to appear on all reports. Whatever you enter here, appears on the second line of the CA-PanAPT reports.

Date Format

Required. Length: 1. Type: numeric. Valid values: 1, 2, or 3.

Select one of the following date format options:

1

Present all dates in MM/DD/YY format.

2

Present all dates in DD/MM/YY format.

3

Present all dates in YY/MM/DD format.

Date Separator

Required. Length: 1. Type: character.

Type the date separator option. For example, if you specify a period **.** to separate the month, day, and year in Date Format 1, the dates appear as MM.DD.YY.

Time Separator

Required. Length: 1. Type: character.

Type the time separator option. For example, if you specify a period (.) to separate the hours, minutes, and seconds, the time appears as HH.MM.SS.

Default Library Code/Subcode

Optional. Lib Code Length: 1-4. Sub Code Length: 1-3. Type: alphanumeric.

These ten fields represent the defaults that you establish. The values you enter here appear later, when you add a member to the Member Moves panel.

You can enter values in any part of the Library Code/Sub Code fields. For example, you can specify values in both the Library Code and the Sub Code, just in the Library Code fields, or just in the Sub Code fields. You can place a value in any field (such as in Library Codes 1, 4, and 9).

If you enter Power Input while adding, changing, or copying a Move Request, these codes are displayed as defaults on the first panel after entering Y for Power Input. Use of these Library Codes is discussed in the "Move Requests" chapter.

The values shown are the default values distributed with the CA-PanAPT system. These default Library Codes appear on the Member Moves panel. A site should specify these defaults to minimize typing by users entering Move Request data. The Library Code values for several (or all) of the default codes can be the same or they can all be different. You can blank out Library Code entries if you choose not to use them.

The default values for the CA-PanAPT system are shown on the batch job APJJ5103, which reports on the information contained on the CA-PanAPT Control File. The APCS5103-01 report provides a listing of the default values. A sample of that report is in Appendix A, "Forms."

Expanded Description

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

All CA-PanAPT users must enter an expanded description during Move Request creation.

N

All CA-PanAPT users do not need to enter an expanded description during Move Request creation, but an expanded description is accepted.

Comments

Approval

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

All CA-PanAPT users must enter a comment when approving an approval category.

N

All CA-PanAPT users do not need to enter a comment when approving an approval category, but a comment is accepted.

Disapproval

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

All CA-PanAPT users must enter a comment when disapproving an approval category.

N

All CA-PanAPT users do not need to enter a comment when disapproving an approval category, but a comment is accepted.

Allow ? and * in Service Request

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

The Service Request field in Move Requests can contain the characters ? and *. The Service Request selection criteria in the Move Request Browse facility is used as an exact match instead of a wildcard expression.

N

The Service Request field in Move Requests cannot contain the characters ? and *. This allows wildcard expressions to be used in the Service Request selection criteria in the Move Request Browse facility. That is, the * and ? characters in the selection criteria are treated as wildcard characters.

Close-Assignment Option

Required. Length: 1. Type: numeric. Valid values: 1, 2, or 3:

1

When a Move Request is closed, each member is properly assigned if it is assigned to any user. The test fails only if the member is not assigned to anyone. (This is the value set when CA-PanAPT is installed.)

2

The test in the MOVEREQ/CLOASSGN activity uses the user IDs of the Owner of the Move Request and the user to whom the member is assigned.

For example, if the MOVEREQ/CLOASSGN activity authorization specifies Users sharing group? as Y and all other fields are N, the Owner of the Move Request and the user to whom the member is assigned must have a group in common between their CA-PanAPT user ID specifications. (This is true if they are both using the *DEFAULT User ID, that is, if their user IDs are not defined explicitly to CA-PanAPT, and *DEFAULT specifies a group.)

As a second example, assume that the MOVEREQ/CLOASSGN activity authorization specifies only Owner as Y and all other options are specified as N. The user who has the member assigned must be the Owner of the Move Request. This means that the proper assignment test fails if any member is unassigned or is assigned to any user other than the Owner of the Move Request.

3

The test in the MOVEREQ/CLOASSGN activity uses the user IDs of the user who is closing the Move Request and the user to whom the member is assigned.

For example, if the MOVEREQ/CLOASSGN activity authorization specifies Users sharing group? as Y and all other fields are N, the user closing the Move Request and the user to whom the member is assigned must have a group in common between their CA-PanAPT user ID specifications. (This is true if they are both using the *DEFAULT User ID, that is, if their user IDs are not defined explicitly to CA-PanAPT, and *DEFAULT specifies a group.)

As a second example, assume that the MOVEREQ/CLOASSGN activity authorization specifies only Owner as Y and all other options are specified as N. The user who closes the Move Request must be the user who has the member assigned. This means that the proper assignment test fails if any member is unassigned or is assigned to any user other than the closing user.

When a Move Request is closed, for Library Codes that have assignment enabled, CA-PanAPT ensures that each member is properly assigned. The Close Assignment Option and the authorization specified for the MOVEREQ/CLOASSGN activity (see the Control File Maintenance, section above) together define properly assigned.

The MOVEREQ/CLOASSGN activity defines a relation to be tested between user IDs. The Close Assignment Option determines which user IDs are used for the test. CA-PanAPT makes the test only after it ensures that the user ID is authorized for the MOVEREQ/CLO activity (closing the Move Request).

The Close Assignment Option applies to all assignment tests. Whatever value you select is used for all Library Codes and all Move Requests.

Final Processing

When you have completed viewing or updating data on this panel, press ENTER. You then proceed to the second System Information Maintenance panel.

Discontinue Processing

If you want to exit this function without changing the information on the file, enter the **END** command (PF3). You then return to the Control File Maintenance Entry panel.

System Information Maintenance Panel 2 of 3

System Information Maintenance continues with the second System Information Maintenance panel, APIP995.

When you have completed the initial System Information Maintenance panel, press ENTER. You see the next System Information Maintenance panel.

Panel Field Descriptions

Action

Display only. This field displays the action that you entered on the Control File Maintenance Entry panel.

Unit

Optional. Length: 8. Type: alphanumeric.

Enter a valid unit name to use when allocating temporary data sets, for retrieve using the TSO submit method, or for Online Reports.

The value in this field must not be blank, but CA-PanAPT does not verify if this is a valid value.

Report File Options

These values allow you to specify characteristics of the temporary file created to hold online reports.

Blocksize

Required. Length: 5. Type: numeric.

The Blocksize field is used in two ways. First, it determines the size of the blocks when you are allocating space for report files. Second, it is the size of a physical block in these files that determines the blocking factor number in writing output to the file. This number must be a multiple of 81.

Primary

Required. Length: 4. Type: numeric.

Contains the number of blocks allocated for primary extents. The value in this field must be at least one.

Secondary

Required. Length: 4. Type: numeric.

Shows the amount of space to be allocated for secondary extents. The value of this field can equal 0, but you should give it some positive value.

Checkout JOB Submission Method

Required. Length: 1. Type: alphabetic. Valid values: T (TSO Submit) or I (Internal Reader) to modify the checkout job submission method:

T

TSO SUBMIT JOB submission service. This is the default value. The SUBMIT service has the advantage of giving the site an IBM-defined exit point to inspect/modify incoming job streams. However, this facility has the disadvantage of requiring the job stream to reside on a sequential file.

CA-PanAPT modeling output must be directed to a sequential file that must be dynamically allocated and de-allocated on disk. The combination of the extra allocation and SUBMIT exit processing time can result in longer ONLINE wait time for Retrieve processing.

I

System Internal Reader. JCL and data records are sent directly to the System Internal Reader as they are formatted rather than sent to a file first. This facility avoids the overhead of allocating disk space or writing and reading a file. However, it provides no system exit point to inspect/modify incoming job streams.

Submit File Options

These values allow you to specify characteristics of the temporary file created to hold a Retrieve job stream for TSO Submit. The file is not allocated if you select submission through the internal reader.

A typical CA-Panvalet Retrieve model can produce 40 records (80 bytes each) for each member to be Checked-out. To illustrate, assume that you are using the CA-Panvalet Retrieve model to Retrieve 100 members. If an inefficient blocksize of 80 is chosen, 4,000 blocks are required between the primary and secondary allocation. As an alternative, if a more efficient blocksize of 8000 is chosen, only 40 blocks are required between the primary and secondary allocations.

Choose an efficient blocksize for your storage device. Set primary and secondary allocations large enough to handle your largest possible Retrieve or Verification request.

Blocksize

Required. Length: 5. Type: numeric.

The Blocksize field is used in two ways. First, it determines the size of the blocks when you are allocating space for report files. Second, it is the size of a physical block in these files that determines the blocking factor number in writing output to the file. This number must be a multiple of 80.

Primary

Required. Length: 4. Type: numeric.

The number of blocks allocated for primary extents. The value in this field must be at least 1.

Secondary

Required. Length: 4. Type: numeric.

Shows the amount of space to be allocated for secondary extents. The value of this field can equal 0, but you should give it some positive value.

Utility Listing Dsname

Required. Length: 1-44. Type: alphanumeric.

Specifies the name of an OS/390 data set that to use to save the listings that are generated by various Utility functions. The data set name must be valid OS/390 data set name syntax, and the data set is tested for existence.

Utility Listing AM

Required. Valid values: PO, PV, or L. Specifies the Access Method used for the Utility Listing Dsname:

PO Partitioned Access Method
PV CA-Panvalet Library Format
L CA-Librarian Library Format

Reassign/Transfer Flag

Required. Valid values: 1 or 2 .

Specifies whether a member is transferred to another user when the member undergoes Reassign/Release processing.

- If the value of this flag is 1, when a member is reassigned to a new Move Request, the assigned-to user changes to the Owner of the new Move Request.
- If this flag is set to 2, the assigned-to user remains the same.

For more information, see the Reassign/Release Processing section in the "Move Requests" chapter.

Move Req Assignment Option

Required. Valid values: 1, 2, or 3.

This controls whether assignment of Inventory to a Move Request is required. If the value is 1, then assignment of Inventory to a Move Request is not required.

If the value is 2 or 3, then when Inventory is assigned, it is not only assigned to a user, but also to a Move Request. Inventory assignment of members that do not reside on Move Requests is prohibited. A Move Request cannot be closed if Inventory for any of its members is assigned to a different Move Request. Movement of a closed Move Request is halted if any of its Inventory was transferred to another Move Request.

In addition, if the value is 3, Concurrent Development assistance is enabled. This prohibits movement of Move Requests that might require changes due to concurrent development of any of its members on another Move Request. Once someone acknowledges that the members in question are ready, the Move Request can proceed again.

Final Panel Processing

When you have completed viewing or updating data on this panel, press ENTER. You then proceed to the third System Information Maintenance panel.

Discontinue Processing

If you want to exit this function without changing the information on the file, enter the **END** command (PF3). You then return to the Control File Maintenance Entry panel.

System Information Maintenance Panel 3 of 3

System Information Maintenance continues with the third System Information Maintenance panel, APIP98A.

When you have completed the second System Information Maintenance panel, press ENTER. You see the final System Information Maintenance panel.

Panel Field Descriptions

Action

Display only. This field displays the action that you entered on the Control File Maintenance Entry panel.

Notify User -doing a Checkout who else has the member

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

When you are performing a Checkout using the Development Facility, and there are other users working on the member for other Projects and Move Requests, Y notifies you of concurrent development. This notification message is displayed before you commit to the Checkout, so you can terminate the Checkout if necessary.

N

No notification is given.

Notify Others-of User doing a Checkout of a member

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

When you are performing a Checkout of a member using the Development Facility, and there are other users working on the member for other Projects and Move Requests, Y notifies the other users upon completion of your Checkout that you are also working on this member.

This notification message is given using the TSO SEND command with the LOGON parameter. If the other users are not logged on, they receive this message the next time they log on to TSO.

N

No notification is given.

Notify Others-of User Cancelling Development of a member

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

When Cancelling Development of a member, and there are other users working on the member for other Projects and Move Requests, Y notifies the other users upon completion of your Cancel Development that you are no longer working on this module. This tells them that they no longer need to be concerned about merging your changes with theirs.

If the member had never been checked into the Move Request before, the users are also notified during a Cancel Checkout because that also implies a Cancel Development.

This notification message is given using the TSO SEND command with the LOGON parameter. If the other users are not logged on, they receive this message the next time they log on to TSO.

N

No notification is given.

Notify Others-of User doing a Checkin of a member

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

When performing a Checkin of a member, and there are other users working on the member for other Projects and Move Requests, Y notifies the other users upon completion of your Checkin that you have completed your changes. This tells them that it is time to Merge your changes with theirs.

This notification message is given using the TSO SEND command with the LOGON parameter. If the other users are not logged on, they receive this message the next time they log on to TSO.

N

No notification is given.

Notify Others-of User doing a Checkin for Migration of a member

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

When performing a Checkin for migration of a member, and there are other users working on the member for other Projects and Move Requests, Y notifies the other users upon completion of your Checkin for migration that you have completed your changes. This tells them that it is time to merge your changes with theirs.

This notification message is given using the TSO SEND command with the LOGON parameter. If the other users are not logged on, they receive this message the next time they log on to TSO.

N

No notification is given.

Set Concurrent Development flag upon Checkins for Migration

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No):

Y

When performing a Checkin for migration of a member, and there are other users working on the member for other Projects and Move Requests, Y sets the other user's Concurrent Development Flag. This prohibits the migration of the member from other users until the programmers have acknowledged that they have accommodated your changes by clearing the Concurrent Development flag.

N

The Concurrent Development Flag is not set.

Final Panel Processing

When you have completed viewing or updating data on this panel, press ENTER. You then proceed to the Approval Category Maintenance panel.

Discontinue Processing

If you want to exit this function without changing the information on the file, enter the **END** command (PF3). You then return to the Control File Maintenance Entry panel.

Approval Category Maintenance Panel

Approval Category maintenance is done from the Approval Category Maintenance panel, APIP994.

To access the Approval Category Maintenance panel complete the System Information Maintenance panel, and press ENTER.

Panel Field Descriptions

Action

Display only. This field displays the action that you entered on the Control File Maintenance Entry panel.

App Num

Display only. This field displays the Approval Category number for which you enter a description.

Approval Category Description

Optional. Length: 1-25. Type: alphanumeric.

The description of each Approval Category. This information text (up to 25 characters) is included on displays and reports.

You can display these descriptions for reference by typing AC on the Command line of any panel that shows approval category requirements.

Final Panel Processing

Enter descriptions for each of the approval categories you use. You can leave any or all of the descriptions blank, but then no text is available on displays or reports.

When you complete viewing or updating fields on this panel, press ENTER. You return to the Control File Maintenance Entry panel.

Discontinue Processing

If you enter the **END** command (PF3) instead of ENTER, no updates occur and the Control File Maintenance Entry panel is displayed. The message line on the panel indicates that the file was not updated.

Final Panel Processing

Enter descriptions for each of the approval categories you use. You can leave any or all of the descriptions blank, but then no text is available on displays or reports. When you complete viewing or updating fields on this panel, press ENTER. You return to the Control File Maintenance Entry panel.

Discontinue Processing

If you enter the **END** command (PF3) instead of ENTER, no updates occur and the Control File Maintenance Entry panel is displayed. The message line on the panel indicates that the file was not updated.

System Security Information Maintenance

System Security Information Maintenance is done from the System Security Information Maintenance panel, APIP996.

System Security Information Maintenance Panel

To access the System Security Information Maintenance panel from the CA-PanAPT Main Menu, type **CTL** or **C** in the Action field and press ENTER. The Control File Maintenance Entry panel displays.

From the Control File Maintenance Entry panel, type:

- a maintenance action in the Action field
- any non-blank character in the Select field next to System Security Info.

Press ENTER and the System Security Information Maintenance panel APIP996 displays. cess; Enter END command to terminate.

Panel Field Descriptions

Display only. This field displays the action that you entered on the previous panel.

Security Exit Status

Required. Type: alphabetic. Valid values: A (Active) or I (Inactive):

A

A Security Exit Program is active for this CA-PanAPT environment. The Security Exit Program must also be activated for each individual activity for the ACTIVITY event to be activated. If the Security Exit has not been activated for any activities, then only the INIT and TERM events are activated.

I

No Security Exit Program is active for this CA-PanAPT environment.

Security Exit Name

Optional. Length: 8. Type: alphanumeric.

If an A was entered in Security Exit Status, then the Security Exit Name must be entered. This is the name of the Security Exit Program that you have written (see Appendix B, "User Exits," in the *CA-PanAPT Administrator Guide*).

If an I was entered in the Security Exit Status, then the Security Exit Name is not required. The Security Exit Program is not active in this CA-PanAPT environment (see Appendix B, "User Exits," in the *CA-PanAPT Administrator Guide*).

Final Panel Processing

Enter the Security Exit Status and Name. When you press ENTER, the status and name are updated. The Control File Maintenance Entry panel is re-displayed, and the message line indicates that the file was updated.

Discontinue Processing

If you enter the **END** command (PF3) instead of ENTER, no updates occur and the Control File Maintenance Entry panel is displayed. The message line indicates that the file was not updated.

Verification Procedures Maintenance

Verification Procedures maintenance is performed from the Verification Procedure Maintenance panel, APIP997.

Verification Procedure Maintenance Panel

To access the Verification Procedure Maintenance panel from the CA-PanAPT Main Menu type **CTL** or **C** in the Action field and press ENTER.

To access the Verification Procedure Maintenance panel from the Control File Maintenance Entry panel, type:

- a maintenance action in the Action field
- any non-blank character in the Select field next to System Security Info.

Press ENTER. The Verification Procedure Maintenance panel displays.

Note: To scroll forward use the DOWN command (PF8). To scroll backward, use the UP command (PF7).

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action you previously entered.

Ver Num

Display only. This field displays the Verification Procedure Category number for which you enter a description and Model specifications.

Verification Procedure Description

Optional. Length: 1-25. Type: alphanumeric.

The description of each Verification Procedure. This information (up to 25 characters) is included on displays and reports.

Blank the entire description field to delete the Verification category.

The descriptions (but not the model specifications) can be displayed for reference by typing VC on the Command line of any panel that shows Verification Procedure Requirements.

Model Specifications

Required. Length: 1-75. Type: alphanumeric.

Three lines are provided for you to enter the CA-PanAPT Model names and Model statements to be used *exclusively* for Verification processing. One of the three lines should contain an INCLUDE for a Model definition.

The data you enter in these fields indicates what Model and Model statements are processed to generate the appropriate JCL statements which analyze and update a Move Request. The Model can determine how to process a Move Request through CA-PanAPT Model System Keyword values.

See Chapter 4, "Modeling Facility," in the *CA-PanAPT Administrator Guide* for details about using the System Keywords for Verification Procedure Model processing. Each model statement can be on a separate line, or they can be on the same line, separated by a **;** (semicolon).

Provided with CA-PanAPT is a Verification Model for the CA-Pan/LCM Configuration Manager. This Model verifies that there are no modules impacted by any members of a Move Request that are not on the Move Request. The Model Specifications for this Model are:

```
INCLUDE APJCJOBL

INCLUDE APJOCFG
```

Provided with the CA-PanAPT DB2 Option is a Verification Model for DB2. Example Model Specifications for this Model are:

```
SSID = 'DB2'

INCLUDE APJCJOBL

INCLUDE APJO2VAL
```

Provided with the CA-PanAPT JCLCHECK Option is a JCLCHECK Verification Model. The Model Specifications for this Model are:

```
INCLUDE APJCJOBL

INCLUDE APJVJCHK
```

Note: There is one Job which is submitted for the Verification Procedures required. It includes all Library Codes for the Move Request. The entire Verification Job is suppressed if any associated Verification Procedure models encounter a modeling error.

Final Panel Processing

Enter descriptions for each of the Verification Procedures you use. You can leave any or all of the descriptions blank, indicating that the procedure is not used by any Move Request.

If Move Requests are created that require a verification, and the Verification Procedure is not defined, then the Move Request is held up because the required verification cannot be obtained. Access this panel and make the proper entries to fix the problem at any time, or alter the Verification Requirements for the appropriate Library Code definitions.

If you press ENTER, the descriptions are updated. Enter the **END** command (PF3) to return to the Control File Maintenance Entry panel. The message line indicates that the file was updated.

Discontinue Processing

If you enter the **END** command (PF3) instead of ENTER, no updates occur and the Control File Maintenance Entry panel is displayed. The message line on the panel indicates that the file was not updated.

Library Level Maintenance

Library Level Maintenance is performed from the Library Level Maintenance panel, APIP998.

Library Level Maintenance Panel

The Library Level Maintenance panel is used to add new library move levels to your CA-PanAPT system. As many as 16 library levels can be defined.

To access the Library Level Maintenance panel from the CA-PanAPT Main Menu type **CTL** or **C** in the Action field and press ENTER.

To access the Library Level Maintenance panel from the Control File Maintenance Entry panel, type:

- a maintenance action in the Action field (CHG or INQ)
- any non-blank character in the Select field next to the Library Level Maintenance.

Press ENTER. The Library Level Maintenance panel displays.

Note: To scroll forward use the DOWN command (PF8). To scroll backward use the UP command (PF7).

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action you previously entered.

Valid Line Cmds

Optional. Not available during INQ actions. Valid values: INS, CHG, DEL, UNDEL.

To add a new level to your CA-PanAPT system, enter the INS Line Cmd after an existing level and press ENTER. The Library Level Maintenance panel opens up an area after the existing level for you to enter the information for the new level.

It is important that you enter the INS Line Cmd on the proper existing level. The levels are displayed in the order that movement takes place. In the example, movement flows from TEST to QA to PROD. If you enter the INS Line Cmd on the QA level and added a new level, movement would then flow from TEST to QA to your new level to PROD.

When you add a level, CA-PanAPT adds Activity records to the Control File for MOVEREQ-APM???? and MOVEREQ-APB-???? where ???? is the short name of your level. These activity records are set up so no one can approve a Move Request for movement or back out at the new level. Don't forget to proceed to Activity Maintenance when you are done with Library Level Maintenance to update these activities.

To change a level from your CA-PanAPT system, enter the CHG Line Cmd for the level you want to change and press ENTER.

Note: It is not necessary to type **CHG** to effect changes; it is implied if the Library Level exists and the Line Command is blank. Lines marked for deletion cannot be changed.

To delete a level from your CA-PanAPT system, enter the DEL Line Cmd for the level you want to delete and press ENTER. Normally, the Library Level Maintenance panel redisplays with a message under the description for the level indicating that a delete of the level is pending. The level is not actually deleted until final panel processing, at which time it (and any other levels pending deletion) is deleted if no Library Codes or Move Requests have any references to it. Also, levels pending deletion are removed during the Move Request purge job (APJJ5950) if they are no longer referenced. There is one instance where the level is deleted immediately. That is when the level was just added during the current Library Level Maintenance session. In that case, the add of the level has not been performed yet on the Control File, so there is no possibility of its use by any Move Requests or Library Codes, and the level is deleted immediately.

If a level is pending deletion and you change your mind and want to keep it, enter the UNDEL Line Cmd next to the level and press ENTER.

Long Name

Required. Length: 1-20. Type: alphanumeric.

This is the long name for a level; it is used in various reports. Each level must have a unique Long Name.

Short Name

Required. Length: 1-4. Type: alphanumeric, no embedded blanks or special characters.

This is the short name for a level; it is used in various reports and panels. Each level must have a unique Short Name.

Abbr

Required. Length: 1-2. Type: alphanumeric, no special characters or leading space.

This is the abbreviation for a level. Each level must have a unique abbreviation. This is used mostly in the abbreviated 1-6 character status for a Move Request. Some batch programs accept Move Request status as a selection parm, so this field also affects the JCL members for those programs.

DD Sfx

Required. Length: 1. Type: alphanumeric.

When a level is added to a library code, the default DD names for the data sets used by that level are built by appending the 1-7 character Library Code name with the DD suffix. Backup and Back Out data sets additionally have a B or O appended. This is to help construct DD names that are unique. While it is not necessary for each level to have a unique DD suffix, it is in your best interest to do so, otherwise when a non-unique DD name is constructed in a Library Code, Library Code maintenance might require you to change the default.

Description

Required. Length: 1-70. Type: alphanumeric.

This is a description of the level.

Final Panel Processing

When you are done with Library Level Maintenance, enter the **END** command (PF3). Your changes are made to the control file. If any levels are pending deletion, the Library Code and Pending records are checked to see if they reference these levels. If no references are found, the levels are removed. This processing might take some time, roughly equivalent to the amount of time it takes for a Move Request browse to present a selection list. The Control File Maintenance Entry panel is re-displayed.

Discontinue Processing

If you enter the **CANCEL** command or the **RETURN** command (PF4) instead of the **END** command (PF3), or if you jump to another panel (**=opt**), then no updates occur. If you used the **CANCEL** command, the Control File Maintenance Entry panel is re-displayed. If you used the RETURN command (PF4), the CA-PanAPT Main Menu is re-displayed.

Access Method Maintenance

Access Method Maintenance is performed from the Access Method Selection List panel, APIP981.

Access Method Selection List Panel

All data sets defined in CA-PanAPT can have an optional Access Method specified with them. This Access Method is used by CA-PanAPT to determine how to access the data set. For instance, to Browse a member on a PDS, a different Browse exit is used than to Browse a member on a CA-Panvalet or CA-Librarian data set.

Only Access Methods defined using Access Method Maintenance can be associated with a data set. To access the Access Method Selection List panel from the CA-PanAPT Main Menu, type **CTL** or **C** in the Action field and press ENTER. The Control File Maintenance Entry panel displays.

From the Control File Maintenance Entry panel, type:

- a maintenance action in the Action field
- any non-blank character in the Sel field next to Access Method
- an Access Method in the Access Method field, or leave blank for a selection list.

Press ENTER. If the Access Method was left blank, the Access Method Selection List panel displays. Otherwise, the Access Method Maintenance panel displays.

The Access Method Selection List panel displays all of the Access Methods defined to your CA-PanAPT system. You can scroll forward and backward if the list spans more than a single display. To select an Access Method, type **S** in the Sel field to the left of the Access Method and press ENTER. The Access Method Maintenance panel displays. When you exit the Access Method Maintenance panel, you are returned to the Access Method Selection List panel where you can select another Access Method.

When you complete your selections, enter the **END** command (PF3). You are returned to the Control File Maintenance Entry panel.

Access Method Maintenance Panel

The Access Method Maintenance panel (APIP980) lets you add, change, or view the definition of an Access Method.

Panel Field Descriptions

Action

Display only. This field displays the action that you entered on the Control File Maintenance Entry panel. The action is displayed on the title line in parenthesis.

Access Method

Display only. This field displays the name of the Access Method you entered on the Control File Maintenance Entry panel, or selected on the Access Method Selection List panel.

Description

Required. Length: 1-50. Type: alphanumeric.

Enter the description of the Access Method.

Exits

There are four types of exits that you can define for an Access Method. The Exist exit (if defined) is responsible for member existence checking. The MSL exit (if defined) reads a library directory and returns the list of names to CA-PanAPT, so names can be selected from the list and added to a Move Request. The Edit exit invokes an editor for a member, so a user can change it. The Browse exit allows a member to be browsed but not changed. Any combination of these exits can be defined to an Access Method.

Name

Optional. Length: 1-8. Type: alphanumeric.

Enter the program name of the exit.

Parameter

Optional. Length: 1-50. Type: alphanumeric.

Enter the parameter to pass to the exit. Usually exits do not require a parameter.

Exist Exits

The following existence exits are provided with CA-PanAPT. These exits do not use a parameter.

APAS0200

Validates member existence for PDS libraries.

APCS0221

Validates member existence for CA-Librarian libraries.

APAS0222

Validates member existence for CA-Panvalet libraries.

APAS0223

Validates member existence for CA-Panexec libraries.

APAS0226

Validates member existence for CA-Telon TDF entities.

The following existence exits are provided with the CA-PanAPT DB2 Option. These exits require their DB2 PLAN name to be provided as a parameter. The PLAN name is usually the same name as the program name.

APCS0225

Validates DB2 PLAN existence.

APCS0227

Validates DB2 PACKAGE existence.

MSL Exits

The following member selection list exits are provided with CA-PanAPT:

APAS0610

Reads a Partitioned data set directory.
APAS0600

Reads a CA-Panvalet directory.
APAS0620

Reads a CA-Librarian directory.

Edit Exits

The following edit exits are provided with CA-PanAPT:

APCS1420

Edit a Partitioned data set member.

APCS1421

Edit a CA-Panvalet member.

APCS1422

Edit a CA-Librarian member.

Browse Exits

The following browse exits are provided with CA-PanAPT:

APCS1410

Browses a Partitioned data set member.

APCS1411

Browses a CA-Panvalet member.

APCS1412

Browses a CA-Librarian member.

Final Panel Processing

When you have completed viewing or updating data on this panel, press ENTER. CA-PanAPT updates the Control File with the data you entered. Depending on how you entered the Access Method Maintenance panel, you are returned to the Control File Maintenance Entry panel or the Access Method Selection List panel.

Discontinue Processing

If you want to exit this function without completing the action, enter the **END** command (PF3). Depending on how you entered the Access Method Maintenance panel, you are returned to the Control File Maintenance Entry panel or the Access Method Selection List panel.

Configuration Manager Information Maintenance

Configuration Manager Information Maintenance is performed from the Configuration Manager Information Maintenance panel, APIP999.

Configuration Manager Information Maintenance Panel

The Configuration Manager Information Maintenance panel is used to add, change, or display setup data for the CA-Pan/LCM Configuration Manager integration components. The integration components consist of a Member Selection List (MSL) of Impacted Members from Move Request member maintenance, and an Impacted Member Verification procedure. Neither of these can be performed until Configuration Manager Information Maintenance information has been added to CA-PanAPT.

To access the Configuration Manager Information Maintenance panel from the CA-PanAPT Main Menu, type **CTL** or **C** in the Action field and press ENTER.

To access the Configuration Manager Information Maintenance panel from the Control File Maintenance Entry panel, type:

- a maintenance action in the Action field (ADD, CHG, INQ, or DEL)
- any non-blank character in the Select field next to the CA-Pan/LCM Configuration Manager info.

Press ENTER. The Configuration Manager Information Maintenance panel displays.

Field Panel Descriptions

Action

Display only. CA-PanAPT displays the action you previously entered.

Profile data set name

Required. Length: 1-44. Type: alphanumeric.

Enter the data set name of your Configuration Manager PROFILE data set. This must be a standard OS/390 data set name. During ADD and CHG actions, CA-PanAPT queries OS/390 to ensure that this data set actually exists.

Project data set name

Required. Length: 1-44. Type: alphanumeric.

Enter the data set name of a Configuration Manager PROJECT data set to be used for CA-PanAPT. This can be the same one you use for Configuration Manager by itself. It can also be the same data set as the PROFILE data set. This is the data set where you keep Configuration Manager Configuration members, pre-DDL members, Dependency file members, DDL members, and Option members.

This must be a standard OS/390 data set name. During ADD and CHG actions, CA-PanAPT queries OS/390 to ensure that this data set actually exists.

Dependency file member

Required. Length: 1-8. Type: alphanumeric.

Enter the name of the dependency file in the PROJECT data set that you want to use. This member is created outside of CA-PanAPT using the Configuration Manager Analyze facility (program AMKGEN).

CA-PanAPT edits this field to ensure it is a valid member name, but does not verify whether or not it exists.

Global options member

Optional. Length: 1-8. Type: alphanumeric.

Enter the name of an Options member to be used during the execution of AMKLIST, the impact analysis program. Any AMKLIST option can be specified in this member with the exception of -w, -q, -fl, -xa, -o:, -help, and -sum. Useful options to specify in this member are -cfg:, -c, -m, and -s.

If specified, CA-PanAPT edits this field to ensure it is a valid member name, but does not verify whether or not it exists.

AMKLIST arguments

Optional. Length: 1-40. Type: alphanumeric.

If your Configuration Manager DDL members act upon any AMKLIST arguments, you can specify those here. Typically the arguments only come into play during a Make, so most sites should not require anything in this field.

Warning Level (MSL and Verifications)

Required. Valid values: 0, 1, 2, and 3. Default: 1 for MSL. 3 for Verifications.

The Warning Level controls how the Configuration Manager behaves when it has warning messages.

0 causes it to ignore warnings without any messages.

causes it to display the warning messages and continue.

causes it to display the warning messages and then prompt you as to whether you wish to continue or not. A value of 2 in batch is treated as a 3.

causes it to display the first warning message and then quit with a fatal condition code.

The first value controls how the Impacted Member MSL treats warnings. The second value controls how the Impacted Member Verification procedures treats warnings.

Suppress errors (MSL and Verifications)

Required. Valid values: Y (Yes) or N (No). Default: N.

If you want all messages from AMKLIST to be suppressed, type a **Y** in this field. This only allows messages to be suppressed, report output of impacted members is still produced. This reduces your output by removing information messages, but if you have error messages, those are also eliminated.

Final Panel Processing

When you are done, press ENTER. If you are adding or changing Configuration Manager information, your new values are saved on the Control file. If you are inquiring, no changes are made. If you are deleting Configuration Manager information, it is erased from the Control File. The Control File Maintenance Entry panel is re-displayed.

Discontinue Processing

If you enter the **END** command (PF3) instead of ENTER, no updates occur and the Control File Maintenance Entry panel is re-displayed.

Chapter 3: Library Codes

This section contains the following topics:

About Library Codes (see page 113)
Library Code Description (see page 114)
Library Code Maintenance (see page 115)
Selecting Library Code Activities (see page 116)
Defining General Information (see page 118)
Defining Related Library Codes (see page 121)
Defining Development Options (see page 124)
Defining the Inventory to Library Code Interface (see page 126)
Defining Defaults for Inventory Records (see page 132)
Defining Defaults for Inventory Compile and Link Edit Options (see page 134)
Defining Defaults for Inventory/User Data Fields (see page 137)
Library Code Maintenance Level Processing (see page 138)
Specifying Level Detail Options (see page 140)
Entering Model Specifications (see page 148)
Library Codes Command (see page 151)

About Library Codes

CA-PanAPT Library Codes designate which libraries a particular type of member moves through. They also define processing options for that type of member. This chapter describes Library Codes and explains how to maintain them. These subjects and topics are covered:

- Library Code Description
- Library Code Maintenance
  - Selecting Library Code Activities
  - Specifying Edit Criteria
  - Defining the Inventory to Library Code Interface
  - Indicating Defaults for Inventory Records
  - Defining Move Levels and Move Options
  - Determining Approval and Verification Requirements
  - Defining Retrieve Options

Library Code Description

The CA-PanAPT Library Code serves two purposes:

Designates library relationships

Defines the processing options for the members that use the Library Code.

Designation of Library Relationships

CA-PanAPT controls and automates the movement of entities into Production Libraries. Every entity comes from a non-Production Library and moves to a specific Production Library. Entities can migrate between as many as 16 levels of libraries.

Most sites set up CA-PanAPT moves so that before the move into the Production Library, the entities are moved to one or more levels of pre-Production libraries, such as quality assurance, so proper testing and evaluation can be performed before the changes migrate to production.

Some sites also follow up with more levels after production, such as distribution levels.

Defining Library Relationships

When you set up Library Codes, you need to decide which libraries are related to each other. You can include individual libraries in more than one Library Code. Part of the implementation of CA-PanAPT involves determining which non-Production Libraries are related to which Production Libraries.

For example, suppose a single test library contains source programs, JCL, and documentation, but there are separate Production Libraries for each type of entity. In this case, three Library Codes are set up. Each Library Code has the same Test library but different Production Libraries.

In another case you might use different test libraries and bypass quality assurance for emergency fixes. In this case you would have an emergency fix Library Code for each regular Library Code. They would share the same Production Library, but they would use a different test library and omit quality assurance.

Processing Options for Move Requests

When you define a Library Code, you assign processing options to that Library Code. These options include edit criteria for member names, Inventory, Assignment, Retrieve options, and a selection of Models that controls the movement between libraries. Members moved under the Library Code are processed according to these options.

Library Code Maintenance

You create Library Codes by making decisions about these codes and then entering the necessary information into the CA-PanAPT system. The following sections in this chapter show you how to enter the necessary Library Code details into the CA-PanAPT system. Before adding Library Codes via the CA-PanAPT online system, organize all of the options for each by completing the Library Code Setup Form, provided in the *CA-PanAPT Administrator* Guide, Appendix A, "Forms," to assist you in making your decisions.

This section presents an overview of the Library Code Maintenance activities:

- ADD—Alters the data for existing Library Codes
- CHG—Creates new Library Codes
- COP—Creates new Library Codes by copying existing ones
- DEL—Removes Library Codes from the system
- INQ—Views the data for existing Library Codes

Each of these activities begins from the Library Code Maintenance Entry Panel and involves processing a series of panels. The entire series of panels is presented in sequence in this chapter. You need to learn the major purpose for using the panel before you process it. Therefore, this chapter is arranged according to the major functions of each panel, rather than by the panel names themselves. You might not see every panel while processing an activity, what you see depends upon the activity being processed and the values in various Library Code fields. Details on this are provided in the panel and field descriptions in the following sections of this chapter.

You can abort your changes by entering the **END** command (PF3) at any time in the series of panels except while you are editing or browsing the model specifications. If you abort your changes, you are returned to the Library Code Maintenance Entry panel. After the last panel in the series is processed, the activity is considered complete and any updates become permanent.

This entire series of panels assumes you are processing the ADD command. For the INQ command, you can process as many panels as you need. You must go through all of the panels for the CHG, COP and DEL commands before the Library Code is successfully deleted, copied or changed. Each panel is described in the following sections of this chapter.

You can create a new Library Code by copying an existing one, using the COPy action on the Library Code Maintenance panel. If you choose this action, you are taken through all of the Library Code panels as if you were adding a new Library Code. The data on the panels is taken from the Library Code you are copying, except that the ddnames for the new Library Code is blank. If you press ENTER on this panel without entering ddnames, default ddnames are created from the new Library Code/subcode. You can change any of the existing data. The new Library Code is created after you press ENTER on the last panel. If you enter the **END** command (PF3) on any of these panels, the new Library Code is NOT created.

Selecting Library Code Activities

Library Code Maintenance Entry Panel

Select the Library Code Maintenance function from the CA-PanAPT Main Menu by typing LCM or L in the Action field and pressing ENTER. The Library Code Maintenance Entry Panel, APIP910, displays.

The Library Code Maintenance Entry panel presents you with a list of all the Library Codes in your CA-PanAPT system. You can scroll through the list using the UP and DOWN commands (PF7 and PF8). If you have several Library Codes, you can use the LOCATE command to position the list to that Library Code.

Select the maintenance activities you want to perform on this panel. To use the LOCATE command, enter **LOCATE** or **L** on the command line followed by the Library Code name. If a Library Subcode is specified, the Library Code name must include a slash (**/**) and there should be no embedded spaces. If you want, you can leave off the Library Subcode.

Panel Field Descriptions

Action

Required. Length: 1-3. Type: alphabetic. Valid values:

ADD or A

Add a new Library Code.

CHG or C

Change (update) a Library Code.

INQ or I

Inquire (browse) a Library Code.

COP

Copy a Library Code to a new Library Code.

DEL

Delete a Library Code.

Old

Display only. CA-PanAPT displays the name of the Library Code to which the row pertains.

New

Required for ADD and COP actions, otherwise must be blank. Length: 1-7. Type: alphanumeric, @, $, and #.

Type the name of the new Library Code / subcode you want to create. For action ADD, it does not matter what row you use.

The Library Code is composed of two fields that are usually shown separated by a slash (/). The first field, the Code field, can contain up to four alphanumeric characters. The second field, the subcode, can contain up to three alphanumeric characters. You must enter at least one character in the Code field.

While any naming scheme can be used, CA-PanAPT makes it convenient to use the Code part to indicate the type of entity (for example, JCL, Source, Documentation) and to use the subcode to represent the application or development group associated with the entities.

Many CA-PanAPT models generate ddnames based on the concatenation of Library Code and subcode. That is, Library Code ABC/123 and Library Code ABC1/23 would both generate a ddname of ABC123.

Description

Display only. The description of the Library Code is shown.

Final Processing

After filling in the panel, press ENTER. If all required fields include valid data, CA-PanAPT takes you to the Library Code Maintenance General Information panel (described in the next section).

Discontinue Processing

If you decide to not continue with the Library Code Maintenance function, enter the **END** command (PF3). You then return to the CA-PanAPT Main Menu.

Defining General Information

Library Code Maintenance General Information Panel

The Library Code Maintenance General Info panel, APIP91, displays after you press ENTER from the Library Code Maintenance Entry panel described in the previous section.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action you selected.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode you selected for viewing or maintaining.

Description

Required. Length: 1 - 55. Type: alphanumeric.

This field must not be left blank. CA-PanAPT performs no editing on the contents of this field. The description appears on CA-PanAPT reports.

Type

Optional. Length: 1-8. Type: alphanumeric.

The Type field is used to indicate the type of data sets that are processed by this Library Code. The type of data sets are used by the Development Facility and are also used by the CA-PanAPT DB2 Option.

The Development Facility uses this field to determine what data set to use for the target of a Checkout or Checkin. The development data sets can be associated with type, so that a development data set with a type matching the Library Code's type is selected as a target. To clarify this, lets look at an example. Lets say you have two work data sets that you can check out members into. One is for JCL, and the other is for program source modules. When you are checking out a JCL member, you want to ensure it does not get checked out into your source module PDS. This is accomplished by giving your JCL Library Codes and your development JCL data sets a type of JCL. Likewise, your source module Library Codes and development data sets can be given a type of SOURCE. CA-PanAPT matches this and picks the correct development data sets for Checkout and Checkin processing.

The CA-PanAPT DB2 Option also uses this field to identify Library Codes that handle DB2 source modules, DBRMs, packages, and plans. These types all begin with DB2. For the complete DB2 values and more information, see the *CA-PanAPT DB2 Option Reference Guide*.

Member names

This area of the panel is used to specify edit criteria concerning the member names.

Equality of from/to names

Required. Length: 1. Type: numeric. Valid values: 1, 2, or 3:

the members can be renamed, but renaming is not required
2 the members cannot be renamed
3 the members must be renamed

As a member moves out of its starting level test library up to the library for the next level, it might or might not be renamed. This field controls whether the user can or must enter different names for a member for the starting level and subsequent levels in a Move Request.

Lengths allowed: Minimum / Maximum

Required. Length: 2. Type: numeric. Minimum length: 01 through 10 with default of 01. Maximum length: 01 through 10 with default of 08.

Entries in these fields force length editing of the names of members added to Move Requests. The values typed into these fields must be greater than or equal to one, and less than or equal to ten.

The maximum length must be equal to or greater than the minimum length. If the minimum and maximum lengths are equal, all member names using this Library Code are the same length.

When entering the numbers, they must be right-justified and zero-filled.

User-data

When creating a Move Request, User Data fields are optional fields that can be used to retain additional information about each member. These optional fields are available for use by models. There are two User Data fields, one for the From member name and one for the To member name.

CA-PanAPT models and Member Existence exits can use this data. Specific values for models and Member Existence exits supplied with CA-PanAPT are discussed in the "Setups for Different Types of Moves" chapter. If your site uses other exits, your CA-PanAPT Administrator must tell you what they require.

You can indicate a minimum and a maximum length for these User Data fields in the Library Code data.

From and To data lengths allowed: Minimum / Maximum

Required. Length: 2. Type: numeric. Minimum length: 00 through 08 with default of 00. Maximum length: 00 through 08 with default of 00.

The maximum length must be greater than or equal to the minimum length. If the minimum and maximum lengths are equal all user data is the same length.

A maximum length of 00 indicates that no user data can be entered.

Final Processing

After filling in the panel, press ENTER. When all required fields include valid data, CA-PanAPT takes you to the Library Code Maintenance Related Library Codes panel (described in the next section).

Discontinue Processing

If you decide to not continue with the Library Code Maintenance function, enter the **END** command (PF3). You then return to the Library Code Maintenance Entry panel without updating the file.

Defining Related Library Codes

Library Code Maintenance Related Library Codes Panel

The Library Code Maintenance Related Library Codes panel, APIP91B, displays after you press ENTER from the Library Code Maintenance General Info. panel described in the previous section.

This panel is provided to specify the names of other related Library Codes. For example, you can specify the Library Code that controls the object or load modules for a source Library Code. Your CA-PanAPT Models can use the data sets defined to these related Library Codes when building JCL for compiles or link-edits.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action that you selected.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode that you selected for viewing or maintenance.

Related input Library Codes

CA-Librarian / CA-Panvalet includes:

Compiler

Optional. Length: 1-7. Type: alphanumeric

You can specify up to four Library Codes that contain CA-Librarian or CA-Panvalet include members to be expanded when the program source is extracted for a compile.

Link edit

Optional. Length: 1-7. Type: alphanumeric.

You can specify up to four Library Codes that contain CA-Librarian or CA-Panvalet include members to be expanded when the Link-Edit control statements are extracted.

Pre Compile SYSLIB

Optional. Length: 1-7. Type: alphanumeric.

You can specify up to four Library Codes for the data sets that are required in a SYSLIB DD statement during a precompile step, such as a DB2 precompile.

Compile SYSLIB

Optional. Length: 1-7. Type: alphanumeric.

You can specify up to four Library Codes for the data sets that are required in a SYSLIB DD statement during a compile step, such as the COBOL compiler.

Link Edit SYSLIB

Optional. Length: 1-7. Type: alphanumeric.

You can specify up to four Library Codes for the data sets that are required in a SYSLIB DD statement during a link-edit step. Often during link edits, other SYSLIB like DD statements are required as well. These need to be specified in your model specifications.

Link Edit SYSLIN

Optional. Length: 1-7. Type: alphanumeric

Specify the Library Code for the data sets that contain SYSLIN input (link-edit deck) for a compile and link. This cannot be used for a link-edit without a compile because the current Library Code contains these data sets.

Related output Library Codes

Listings

Optional. Length: 1-7. Type: alphanumeric.

Specify the Library Code for the data sets that are used to store output listings from the compile or link-edit.

Object

Optional. Length: 1-7. Type: alphanumeric.

Specify the Library Code for the data sets that are used to store object from a compile.

Executable

Optional. Length: 1-7. Type: alphanumeric.

Specify the Library Code for the data sets that are used to store load modules from a link- edit or from any other type of executable output.

Source

Optional. Length: 1-7. Type: alphanumeric.

Specify the Library Code for the data sets that are used to store source created from a compile. While this is not common, some compiles, such as CICS BMS map assemblies, create source as an output.

Other

Optional. Length: 1-7. Type: alphanumeric.

Specify the Library Code for the data sets that are used to store other output from a compile, such as DBRMs for DB2.

Final Processing

After filling in the panel, press ENTER. CA-PanAPT takes you to the Library Code Maintenance Development Options panel (described in the next section).

Discontinue Processing

If you decide to not continue with the Library Code Maintenance function, enter the **END** command (PF3). You then return to the Library Code Maintenance Entry panel without updating the file.

Defining Development Options

Library Code Maintenance Development Options Panel

The Library Code Maintenance Development Options panel, APIP916, displays after you press ENTER from the Library Code Maintenance Related Library Codes panel described in the previous section.

This panel is provided to specify the options associated with the Development Facility.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action that you selected.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode that you selected for viewing or maintenance.

Development options

Development facility enabled

Required. Length: 1. Valid values: (Y) Yes or N (No):

Y Indicates that the Development Facility can be used for this Library Code.

N Indicates that the Development Facility cannot be used for this Library Code.

Checkout enabled

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y Indicates that you can Checkout and Checkin members using this Library Code.

N Indicates that you cannot Checkout members.

WORK level enabled

Required. Length: 1. Valid values: Y (Yes) or N (No).

WORK is the default level name for the individual User Work library level. This is the lowest library level defined to CA-PanAPT. Your system might use a different name because this name can be changed.

Y Indicates that *WORK* libraries are used for Checkouts in the Development Facility if the Project being used also allows *WORK* libraries.

N Indicates that *WORK* libraries are not used with this Library Code.

Matching Access Method for library lookup

Optional. Length: 1-2. Type: alphanumeric.

Specifies the name of an Access Method to match when CA-PanAPT determines the destination library for a Checkout or Checkin. This field is compared with the Access Method in a Project or in a user's *WORK* libraries.

Compile supported

Required. Length: 1. Valid values: Y (Yes) or N (No).

Specifies whether you can compile members of this Library Code using the Development Facility.

Compile and Link edit supported

Required. Length: 1. Valid values: Y (Yes) or N (No).

Specifies whether you can compile and link edit members of this Library Code using the Development Facility.

Link edit supported

Required. Length: 1. Valid values: Y (Yes) or N (No).

Specifies whether you can link edit members of this Library Code using the Development Facility.

Final Processing

After filling in the panel, press ENTER. CA-PanAPT takes you to the Library Code Maintenance Inventory Options panel (described in the next section).

Discontinue Processing

If you decide to not continue with the Library Code Maintenance function, enter the **END** command (PF3). You then return to the Library Code Maintenance Entry panel without updating the file.

Defining the Inventory to Library Code Interface

Library Code Maintenance Inventory Options Panel

The Library Code Maintenance Inventory Options panel, APIP914, displays after you press ENTER from the Library Code Maintenance Development Options panel described in the previous section.

This panel is used to define the interface between CA-PanAPT Inventory data and the Library Code.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action you have selected.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode you have selected for viewing or maintenance.

Inventory options

Inventory enabled

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y Inventory Records are set up for members of the Production level library. CA-PanAPT expects to maintain those inventory members.

N This is the default. CA-PanAPT does not create or maintain inventory information for the Library Code. Inventory information is not available to the models.

Enter Y if you want to maintain Inventory Records for each member in this Library Code.

If the inventory is not enabled, and any of the inventory options is enabled, CA-PanAPT detects an inconsistency. If illogical combinations of options are specified (like Inventory NOT enabled and Auto approve Inventory at creation), an error message displays and the cursor is placed on the first option that is in error. This is a sample of an error message:

```
APCS1910-33 Field must be Y if an exit or assignment option is specified.
```

The cursor is positioned on the Inventory Enabled field.

Inventory qualifier

Optional. Length: 8. Type: alphanumeric. Default: Library Code.

CA-PanAPT identifies members according to a combination of member name and Inventory qualifier. If you set up several Library Codes that use the same Production (or QA) library, you must specify the same Inventory qualifier on all the Library Codes that share that library. Otherwise, CA-PanAPT considers member XYZ for Library Code AA to be different from member XYZ for Library Code BB when XYZ is the same member in the same library.

The Inventory qualifier is normally the same as the Library Code / subcode. The example below shows three Library Codes (AA, BB, and CC) that use a common Production Library. Specify the same Inventory qualifier (in this case, ABC) for each of the three Library Codes so that assigning member XYZ for Library Code AA is equivalent to assigning XYZ for all three Library Codes.

Member	Library Code (Default: Inventory qualifier)	Inventory Qualifier

XYZ	AA	ABC
XYZ	BB	ABC
XYZ	CC	ABC

The Inventory qualifier is used when you set up Move Requests so that CA-PanAPT can ensure that only one user has control of each individual member. The member can be assigned to several Move Requests simultaneously.

Never change the Inventory qualifier as long as there are Inventory Records on the file for this Library Code or any outstanding Move Requests for this Library Code.

Auto create at assignment

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y An Inventory Record is created (if it does not exist) when a user performs the Assignment function of a member. The user is prompted with the inventory panels. This option allows enlarging the Inventory File as needed. An Inventory Record for a member does not exist until it is created explicitly or by using Auto Create at Assignment.

N This is the default. When a user performs the assignment function of a member, if an Inventory Record does not exist, the assignment is not allowed.

Select **N** if your site must record and validate fields in the inventory that the typical requestor cannot be expected to enter.

Auto approve at creation

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y When a new Inventory Record for a member in this Library Code is created it is marked as Approved. This is true both for records added using the Inventory Maintenance panel and for records created using Auto Create at Assignment.

No separate approval is required for the record. However, no one has the chance to inspect the record before it is used. Sites that choose this option rely on users to provide correct information when they add Inventory Records.

N This is the default. Marks all new Inventory Records as Unapproved. An authorized user must inspect the record and mark it Approved before any Move Requests containing the member can be closed (processed).

A user-coded Inventory Edit Exit can mark the record Approved or Unapproved, overriding the default specification.

Note: If the Inventory Enabled field (above) is set to N, you must enter **N** in this field.

Require approved Inventory Record

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y When you close a Move Request, every member of this Library Code in the Move Request must have an approved Inventory Record. The Move Request cannot be closed until the Inventory Records are marked Approved.

N This is the default. When you close a Move Request, inventory approvals is not considered for members of the Move Request.

Note: If Inventory Enabled field (above) is set to N, you must enter **N** in this field.

Edit Exit

program

Optional. Length: 8. Type: alphanumeric.

This field specifies the name of the program to be called when any user is using CA-PanAPT commands to change the Inventory Record. This exit can modify the user's entries or reject the changes.

parameter

Optional. Length: 50. Type: alphanumeric.

This field passes a user parameter to the Inventory exit program for this Library Code.

Assignment options

Assignment enabled

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y Assign a member in a Move Request properly (according to site-specified criteria) before the Move Request can be closed.

N This is the default. Members of the Library Code cannot be assigned or checked out.

Auto assignment with move request

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y CA-PanAPT automatically assigns responsibility for a member to the user who is adding the member to a Move Request even though that user does not have assigned responsibility for that member, if the member is not already assigned to anyone else.

Members of a Move Request added through the Batch Add Interface also follow this assignment process when the Move Request is being changed.

N This is the default. CA-PanAPT does not automatically assign members. If assignment is required, the user must use the CA-PanAPT Assign function for all members before adding them to the Move Request

Auto Release at prod move time

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y CA-PanAPT automatically releases the members if they are not found in any other Move Requests when the members are moved into their final destination (either the highest level used by the Move Request, or the Early Stop level for the Move Request) or deleted from a Move Request.

The user who had been assigned responsibility for those members is no longer responsible. This is the natural counterpart of Auto Assign.

If members being automatically released are found on another Move Request, they might be reassigned to that Move Request, and the assigned-to user might change, depending on the value of the Reassign/Transfer flag in the Control File. If the member is reassigned and if the member name inventory qualifier is found, CA-PanAPT changes the member's assigned-to Move Request to the Move Request that contains the member name/inventory qualifier and has the earliest scheduled move date.

N This is the default. CA-PanAPT does not do any Automatic Releases. However, it does reassign the member to another Move Request, or it blanks out the assigned - to Move Request field. You must use the CA-PanAPT Release function if release is desired.

For more information on releasing members, see "Reassign/Release Processing" in the "Move Requests" chapter.

Retrieve enabled

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y When a member has been successfully assigned, it is eligible for Retrieve processing. You must specify appropriate Retrieve Model specifications on a later panel. The Retrieve function can be accessed *explicitly* through the Inventory File Maintenance or Move Request maintenance action of Assign and Retrieve (RET). It can be accessed *implicitly* when a member becomes assigned. Assignment occurs from the Inventory Assignment function (ASN) or through the Move Request Maintenance actions of Create (ADD) and Change (CHG).

N This is the default. CA-PanAPT does not allow any Retrieve processing for members associated with this Library Code.

Auto Retrieve at assignment

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y Retrieve processing occurs *implicitly* for members for this Library Code that are successfully Assigned during the Move Request Maintenance actions of Create (ADD) and Change (CHG), or during the Inventory File Maintenance action of Assign (ASN). Y is allowed only if the Retrieve Enabled field also has a value of Y.

N This is the default. You can do Retrieve processing for members of this Library Code only through the Inventory File Maintenance or Move Request maintenance Assign and Retrieve (RET). If Retrieve is not enabled, this field must be specified as N.

Final Processing

After filling in the panel, press ENTER. When all required fields include valid data, and if you have indicated that Inventory is Enabled, CA-PanAPT takes you to the Library Code Maintenance Inventory Defaults panel (described in the next section).

Processing When Inventory is Not Enabled

If you have indicated that Inventory is not Enabled for this Library Code, CA-PanAPT takes you to the Library Code Maintenance Level Processing panel (described later in this chapter.)

Discontinue Processing

If you do not want to continue with the Library Code Maintenance function, enter the **END** command (PF3). You then return to the Library Code Maintenance Entry panel and the Library Code is not updated.

Defining Defaults for Inventory Records

Library Code Maintenance Inventory Defaults Panel

The Library Code File Maintenance Inventory Defaults panel, APIP915, displays when you indicate that the Library Code has inventory enabled on the Library Code Maintenance Inventory Options panel. This was described in the previous section.

For Library Codes with Inventory Enabled, this panel is used to indicate the defaults for the Inventory Records associated with the Production Library members. These defaults are inserted into fields in the Inventory Records when they are created. All defaults can be overridden when the member is added to the Inventory.

Field Panel Descriptions

Action

Display only. CA-PanAPT displays the action you selected.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode you selected for viewing or maintenance.

Note: The remaining fields on this panel are optional and can be left blank. CA-PanAPT does no editing on the data entered into these fields except Compile/Link Options and Inventory/User data.

Owned by

Optional. Length: 0-8. Type: alphanumeric.

Enter the user ID of the person who is considered the permanent owner of members for this Library Code. This is the person who is responsible for the members when they are not assigned.

If present, this user ID is used by the security authorization process to determine who can modify a member for this Library Code.

Description

Optional. Length: 1-55. Type: alphanumeric.

Enter a default description for the Inventory Record members related to this Library Code.

Comments

Optional. Length: 1-55. Type: alphanumeric.

Enter a default comment for the Inventory members.

Environment

Optional. Length: 1-8. Type: alphanumeric.

Enter the expected Environment for the Inventory members.

Application

Optional. Length: 1-8. Type: alphanumeric

Enter the Application for the Inventory members.

Language

Optional. Length: 1-8. Type: alphanumeric.

Enter the Language for the Inventory members.

Compile/Link Options

Required. Length: 1. Valid values: Y (Yes) or N (No).

Displays the Inventory Compile/Link Options panel, APIP612. The Inventory Compile/Link Options panel lets you enter Inventory defaults pertaining to Compile and Link-Edit options. On the initial entry of Compile/Link Options, this field is N. Entering **Y** causes the panel to display, and **N** prevents the panel from displaying.

Inventory/User data

Required. Length: 1. Valid values: Y (Yes) or N (No).

Displays the Inventory/User Data panel, APIP611. The Inventory/User Data panel allows additional data to be entered about the Inventory Record and the Library Code. On the initial entry of inventory/user data, this field is N. Entering **Y** causes the panel to display, and **N** prevents it from displaying.

Final Processing

After filling in the panel, press ENTER. If the Compile/Link Options field is set to Y, CA-PanAPT takes you to the Inventory Compile/Link Options panel (described in the next section). If the Compile/Link Options field is set to N and the Inventory/User data field is set to Y, CA-PanAPT takes you to the Inventory/User Data panel (described later in this chapter). Otherwise, CA-PanAPT takes you to the Library Code Maintenance Level Processing panel (described later in this chapter).

Discontinue Processing

If you decide you do not want to continue with the Library Code Maintenance function, enter the **END** command (PF3). You then return to the Library Code Maintenance Entry panel, and the Library Code is not updated.

Defining Defaults for Inventory Compile and Link Edit Options

Inventory Compile/Link Options Panel

The Inventory Compile/Link Options panel, APIP612, displays when you enter a **Y** in the Compile/Link Options field on the Library Code Maintenance Inventory Defaults panel, APIP915, and press ENTER. This panel displays Inventory defaults for Compile and Link-Edit options.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action that you selected.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode that you selected for viewing or maintenance.

Options

Compiler

Optional. Length: 1-60. Type: alphanumeric.

Enter the Inventory default for the Compiler Options. These are normally passed to the compiler using a JCL parameter.

Link Edit

Optional. Length: 1-60. Type: alphanumeric.

Enter the Inventory default for the Link-Edit Options. These are normally passed to the linkage editor or the binder using a JCL parameter.

DB precomp

Optional. Length: 1-60. Type: alphanumeric.

Enter the Inventory default for the database precompile options. These are intended for any database precompile, such as DB2, CA-IDMS, and CA-DATACOM.

CICS precomp

Optional. Length: 1-60. Type: alphanumeric.

Enter the Inventory default for the CICS precompile.

Link stream member

Optional. Length: 1-10. Type: alphanumeric.

Enter the Inventory default for the link-edit control statement member to be used for the link-edit step of a compile and link.

Library Code overrides

Through the Library Code Maintenance Related Library Codes panel, APIP91B, the related Library Codes for storing listings, object, and load modules were specified. If a Library Code was specified for any of these, the assumption is that you are going to save or create these outputs in your compile and link-edit models. If the Library was left blank, the assumption is that you are not going to keep these outputs. However, you can override this using the Library Code overrides.

There are two columns provided for each type of output. The first column is where you enter the Library Code default for the override. Enter **Y** to indicate that you want to keep this output. Enter **N** to indicate that you do not want to keep this output. Or, leave this field blank to indicate that you want to go along with the assumption, based on the specification of a related Library Code. The second column, under the heading Library Code Support, indicates what the assumption is. That is, it indicates whether a related Library Code was specified.

Note: If you specify Y for any of the fields that report an N for Library Code Support, you must alter the distributed compile and link modules to specify an output data set. As distributed, the compile and link modules issue an error message under this condition.

Save listings

Optional. Length: 1. Valid values: Y (Yes), N (No), and blank.

Enter the Inventory default for saving compile and link-edit listings on a data set. You can also leave this field blank to indicate to save the listings only if there is a related Library Code for output listings.

Save object

Optional. Length: 1. Valid values: Y (Yes), N (No), and blank.

Enter the Inventory default for saving object from the compile on a data set. You can also leave this field blank to indicate to save the object only if there is a related Library Code for object modules.

Create load

Optional. Length: 1. Valid values: Y (Yes), N (No), and blank.

Enter the Inventory default for creating load modules during compiles. You can also leave this field blank indicate to create load modules only if there is a related Library Code for load modules.

Final Processing

After filling in the panel, press ENTER. If the Inventory/User data field on the Library Code Maintenance Inventory Defaults panel was specified as Y, CA-PanAPT takes you to the Inventory/User Data panel (described in the next section). Otherwise, CA-PanAPT takes you to the Library Code Maintenance Level Processing panel (described later in this chapter).

Discontinue Processing

If you decide you do not want to continue with the Library Code Maintenance function, enter the **END** command (PF3). You then return to the Library Code Maintenance Entry panel, and the Library Code is not updated.

Defining Defaults for Inventory/User Data Fields

Inventory/User Data Panel

The Inventory/User Data panel, APIP611, displays when you enter a **Y** in the Inventory/User data field of the Library Code Maintenance Inventory Defaults panel, APIP915, and press ENTER. If you also entered a **Y** in the Compile/Link Options field, the Inventory Compile/Link Options panel, APIP612, displays first. The panel displays all the Inventory/User data fields. CA-PanAPT processes the data entered on this panel using the action entered on the Library Code Maintenance Inventory Defaults panel, APIP915.

Use this panel to enter additional freeform inventory/user data. The data from this panel is stored with the data from the Library Code Maintenance Inventory Defaults panel, APIP915.

Note: The format and text of your panel might be different than the one shown here. See your CA-PanAPT Administrator for more details.

Field Panel Descriptions

Action

Display only. CA-PanAPT displays the action you have selected.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode you have selected for viewing or maintenance.

User0001 through User0020 fields default to blank.

User0001 through User0005

Optional. Length: 1-8. Type: alphanumeric

These fields are freeform. The cursor is placed at User0001 when the panel displays.

User0006 through User0010

Optional. Length: 1-16. Type: alphanumeric.

These fields are freeform.

User0011 through User0020

Optional. Length: 1-50. Type: alphanumeric.

These fields are freeform.

Final Processing

After filling in the panel, press ENTER. CA-PanAPT takes you to the Library Code Maintenance Level Processing panel (described in the next section).

Discontinue Processing

If you want to exit this function without completing the action, enter the **END** command (PF3). You then return to the Library Code Maintenance Entry panel.

Note: Most fields that are alphanumeric can be any EBCDIC character, but might cause errors later in processing.

Library Code Maintenance Level Processing

Library Code Maintenance Level Processing Panels

The Library Code Maintenance Level Processing panel, APIP912, lets you add levels to a Library Code, change or display the levels of a Library Code, or delete levels from a Library Code. You can scroll through the levels using the UP and DOWN commands (PF7 and PF8). You can also change the presentation of the Library Code Maintenance Level Processing panel to different views using the LEFT and RIGHT scroll commands (PF10 and PF11).

Panel Field Descriptions

Action

Display only. The action you have selected.

Library code / subcode

Display only. The Library Code / subcode you selected.

Act

Optional. Length: 3. Type: alphabetic. Valid values: ADD or A, CHG or C, INQ or I, and DEL.

ADD or A

CA-PanAPT lets you add a move level to the Library Code. Add is valid only on rows that have one of the following three messages:

```
***** STARTING LEVEL IS AVAILABLE
***** LEVEL AVAILABLE
***** LEVEL AVAILABLE BUT MARKED FOR DELETION
```

These messages indicate that the level was defined to your CA-PanAPT system and is not in use by the Library Code.

When you press ENTER, the Library Code Maintenance Level Detail panel displays, where you fill in specific information for the level.

CHG or C

CA-PanAPT lets you change the level. When you press ENTER, the Library Code Maintenance Level Detail panel displays.

INQ or I

CA-PanAPT lets you look at the details for the level. When you press ENTER, the Library Code Maintenance Level Detail panel displays.

DEL

CA-PanAPT deletes the level from the Library Code.

Level

Display only. The 1 to 4 character short name for the level to which the row pertains displays.

Note: During a Library Code Add or Change, rows appear for all levels defined to your CA-PanAPT system. During a Library Code Inquire or Delete, only the levels defined to the Library Code being acted upon are displayed.

Furthermore, the first two levels in CA-PanAPT are for the Development Facility, and they never display on this panel. Only the higher migration levels appear.

Dataset

Display only. The primary data set name for the level displays.

Message

Display only. In some cases an informational message about the level displays. For instance, during an add or a change, if there are levels defined to your CA-PanAPT system that are not used by your Library Code, the row for that level displays a message informing you that you can add this level to your Library Code.

Verifications

Display only. The twenty Verification requirements for the level display.

Approvals

Display only. The twenty Approval requirements for the level, both for forward movement and Back Out processing display.

Final Processing

After you have finished, press ENTER without entering anything in the Act fields. If everything is valid, CA-PanAPT takes you to the Library Code Maintenance Model Specifications panel (described later in this chapter)

Discontinue Processing

If you decide not to continue with the Library Code Maintenance function, enter the **END** command (PF3). CA-PanAPT then returns you to the Library Code Maintenance Entry panel. The Library Code is not updated.

Specifying Level Detail Options

Library Code Maintenance Level Detail Panel

There are two Library Code Maintenance Level Detail panels. The following panel, APIP91A, displays after you enter an action for the first migration level (initially named Test) on the Library Code Maintenance Level Processing panel, described in the previous section. The next panel, APIP913, displays after you enter an action for any other level.

This panel is used to enter the names of the libraries, to set flags controlling how the moves are done, and to indicate which CA-PanAPT models are used to build the actual move jobs.

Note: If the CA-PanAPT DB2 Option is installed and the Type field on the Library Code Maintenance General Info. panel contains a DB2 type, alternate panels with slightly different content might appear for the Level Detail panel. These panels are documented in the *CA-PanAPT DB2 Option Reference Guide*.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action that you selected.

Level

Display only. CA-PanAPT displays the short name of the level being processed.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode that you selected for viewing or maintenance.

DSN Target/Backup/Backout

Required. Length: 1-44. Type: alphanumeric.

Enter the data set names of the actual libraries. These must be standard OS data set names of the libraries to be assigned to the level. CA-PanAPT does not edit the data for syntax or to ensure that the data set names entered match the data sets entered in any JCL. It is the user's responsibility to ensure correctness.

The Backup data set names must be unique within the Library Code. They cannot match any other Target, Backup or Backout data set name within the Library Code.

The Backout data set name must not match the Target data set name for the current level or any subsequent levels. It can, however, match the Target data set name for a prior level. This way, upon completion of a Back Out, the failing members can be put directly back into your test libraries.

DDname

Required. Length: 1-8. Type: alphanumeric. Default: see below.

Enter the ddnames that CA-PanAPT uses in the batch utility steps while moving/deleting members. These must be standard OS ddnames. CA-PanAPT does not edit the data to ensure that the ddnames entered match the actual ddnames used in any JCL. The Models and exits used by this Library Code may or may not use the ddnames that you specify.

CA-PanAPT generates default ddnames on the panel for each library in the level. The default ddnames generated are the 1- to 7-character Library Code/subcode followed by the ddname suffix defined to the level. In addition, a B or O is appended for Backup and Back Out libraries respectively. If the B or O does not fit in the 8-character field, you are prompted for a unique ddname.

For example: If you are adding the QA level to Library Code PROC, and the ddname suffix for the QA level is Q, the ddnames generated are PROCQ, PROCQB, and PROCQO for the primary, Backup, and Back Out libraries respectively.

You can type over the generated defaults if you want to change them.

Security

Optional. Length: 1-10. Type: alphanumeric.

Enter any required password or control field required for the libraries. CA-PanAPT does not edit the data entered in any way.

The Security field is used by the model processing. It is model-dependent.

Examples of entries into this Security field are a CA-Panvalet control code or a special password.

Note: The security data is only displayed on inquiries by users authorized to view the Security fields. Authorization is controlled by the LIBCODE/SECURITY activity record.

Accmeth

Optional. Length: 1-2. Type: alphanumeric.

This field describes the Access Method required to process the data set. Only Access Methods defined using Control File maintenance can be specified. A list of these Access Methods can be obtained by entering the **AM** command and pressing ENTER. You can then select an Access Method from the list presented by the AM command, rather than typing it in. If you enter an Access Method then you can specify an equal sign (**=**) for the exit names on this panel to imply the Access Methods registered exit name.

Move Control

Required except for starting level, in which case it is not available and displayed.

Valid values: C (Copy), M (Move), D (Delete), and I (Inactive).

This field controls how movement is to occur when moving members into this level.

C

Indicates that the members are copied to this level's data set. The members still reside in the previous level's data set.

M

Indicates the members are moved to this level's data set. The members are removed from the previous level's data set.

D

Indicates the members are not moved to this level, and they are deleted from the previous level's data set. Use caution with this value. This value might be used in the following scenario. You have one Library Code that moves program source code and another that moves load modules. When moving into your quality assurance level you want to recompile the source and recreate the load modules, but from that point on you just want to move the load modules. The Library Code for the source program has modeling specifications that cause the load module to be created from a compile and link at the quality assurance level. Your Library Code for the load module you use this value at the quality assurance level to clean up the test level's load library.

I

Indicates that this level is inactive and does not get used in any moves. It is as though it were not defined to the Library Code. This can be useful if you are planning to implement a new level on a particular date and want to be as ready as possible. I (Inactive) is used only if there are no outstanding move requests.

Backup Enabled

Required if you have a Backup DSN. Valid values: Y (Yes) or N (No).

This field indicates whether CA-PanAPT backs up members in the target DSN before replacing them on a move.

This field might appear to be redundant, for the simple existence of a Backup DSN should indicate that backup is enabled. It is supplied for compatibility with earlier releases of CA-PanAPT, where Models were written that place other data in the Backup or Backout DSN.

Note: This field must be a Y if Back Out is to be supported.

Backout Control

Required if you have a Backout DSN. Valid values: B (Backout and restore), R (Restore without backout), and P (Prohibited).

This field indicates what action takes place during a Backout.

B

Indicates that the current members being backed out are saved on the Backout DSN, and then the previous members on the Backup DSN are moved back to the Target DSN. This is the most frequently used option.

R

Indicates the previous members on the Backup DSN are moved to the Target DSN *without first saving the current members on the Backout DSN*. The members being backed out are not saved anywhere. Use this option with caution. Make sure there is a copy of the members being backed out somewhere else.

P

Indicates that Backout is prohibited. The Backout DSN field is not used by CA-PanAPT if you specify this option, but is still available to Models. Many Models have been written under earlier releases of PanAPT that place other data in the Backout DSN field; this option allows that data to be placed there.

Note: If you do not specify a Backout DSN and leave this field blank, it is treated as P (Prohibited).

Verification Requirements

Required. Length: 20. Valid values: Y (Yes) or . (period) in each position:

Y

In the column of the associated verification category indicates the verification category is required for this level. For the starting level, Verification Requirements must be satisfied before the Move Request can be closed. For all other levels, the Verification Requirements must be satisfied before the move to that level can take place.

For example, if the Quality Assurance level requires Verification Category 4 before a move can take place, enter a **Y** in the fourth column for the Quality Assurance level. After the Move Request has been closed and has been moved to the level prior to Quality assurance, the Quality Assurance Move waits for this Verification Requirement to be satisfied.

If your Quality Assurance level is the first level after your starting test level, you can, as an alternative, enter a **Y** in the fourth column for the starting test level. In this case, the Move Request cannot be closed until this Verification Requirement has been satisfied.

period (.)

In the column indicates the verification category is not required.

The panel initially displays with a **.** in each verification column. Only Verification Categories which are defined in the Control File System Information can be specified as Y. See the "Control File" chapter for more information.

Note: You can display descriptions of the Verification Procedure categories by entering **VC** on the Command line.

Approval Requirements

Required. Length: 20. Valid values: Y (Yes) or . (period) in each column:

Y

In the column of the associated approval category indicates the approval category is required for this level's moves. For example, if a Library Code requires Approval Category 4 before a move to Quality Assurance can take place, enter a **Y** in the fourth column for the Quality Assurance level.

period (.)

In the column indicates the approval category is not required. The panel initially displays with a **.** in each approval column.

Note: You can display descriptions of the Approval Categories by entering the **AC** command on the Command line.

Backout Approvals

Required. Length: 20. Valid values: Y (Yes) or . (period) in each column:

Y

In the column of the associated approval category indicates the approval category is required for this level's Back Outs. For example, if a Library Code requires Approval Category 4 before a Back Out at the Quality Assurance level can take place, enter a **Y** in the fourth column for the Quality Assurance level.

period (.)

In the column indicates the approval category is not required. The panel initially displays with a **.** in each approval column.

Note: You can display descriptions of the Approval Categories by entering the **AC** command on the Command line.

MSL Exit

MSL Exit: Program / =

Optional. Length: 1-8. Type: alphanumeric.

The program entered in this field is called when a Member Selection List (MSL) is requested from a Move Request member add, and it is used to read the directory of the level's primary library and build the MSL. You can enter an equal sign (**=**) to indicate the MSL exit program defined to the Access Method is to be used. If this field is blank, you cannot request a MSL for this Library Code at this level.

Note: You must specify this exit, the Exist exit, and the Browse exit if you are using the Development Facility with this library code.

The following shows the sample MSL exit programs distributed with CA-PanAPT.

Exit Name	Library Type
APAS0600	CA-Panvalet
APAS0610	PDS
APAS0620	CA-Librarian

MSL Exit: Parameter

Optional. Length: 1-50. Type: alphanumeric.

Enter the parameter to be passed to the MSL exit. None of the sample exits require user parameters.

Exist Exit / Program / Parameter

CA-PanAPT provides several sample exit programs that can be used by the online system to validate that members do exist in the sending libraries. This prevents specification of non-existent member names in a Move Request.

Note: You must specify this exit, the MSL exit, and the Browse exit if you are using the Development Facility with this library code.

Each of these sample programs validates a member by determining if it exists in the library from which it is moved. For a move from the Test to QA level, the exit specified at the Test level verifies that the member is in the Test library. On a Back Out at the QA level, the exit specified at the QA level verifies that the member is in the QA Backup library. The following shows a sample of exit programs and the associated library type.

Exit Name	Library Type
APAS0200	PDS
APCS0221	CA-Librarian
APAS0222	CA-Panvalet
APAS0223	CA-Panexec
APAS0226	CA-Telon

Your site might have developed other Member Existence exits. Your CA-PanAPT Administrator can provide you with their names and information about their functions.

Exist exit: Program / =

Optional. Length: 8. Type: alphanumeric.

Enter the name of an exit to verify existence of members. You can enter an equal sign (**=**) to indicate the existence exit program defined to the Access Method is to be used.

Member existence is checked in the daily move job (APJJ5310). If any members fail the existence check for a Move, the move is not allowed to proceed. If any members fail the existence check for a Back Out, the Back Out proceeds without backing out those members.

In addition, if an existence exit is specified for the starting test level, member existence is also checked online. Move Requests cannot be closed if any members fail the existence check at the starting level.

Exist exit: Parameter

Optional. Length: 50. Type: alphanumeric.

This field is used to pass a user parameter to the member existence exit program.

Except for APAS0223, the exit for CA-Panexec libraries, none of the sample exits require user parameters. See CA-Panexec Moves in the "Setups for Different Types of Moves" chapter. If your site has developed its own exits, your CA-PanAPT Administrator can tell you about the parameters they require.

Browse Exit / Program / Parameter

CA-PanAPT provides several exit programs that can be used to view or browse members. Members can be browsed from the Development Facility and while adding members to Move Requests from a library MSL.

Note: You must specify this exit, the MSL exit, and the Exist exit if you are using the Development Facility with this library code.

Browse exit: Program / =

Optional. Length: 1-8. Type: alphanumeric.

Enter the name of a browse exit program to view members. You can enter an equal sign (**=**) to indicate the browse exit program defined to the Access Method is to be used.

The following table shows the browse exit programs provided with CA-PanAPT:

Exit Name	Library Type	Source Provided
APCS1410	PDS	Yes

Exit Name	Library Type	Source Provided
APCS1411	CA-Panvalet	No
APCS1412	CA-Librarian	No

Browse exit: Parameter

Optional. Length: 1-50. Type: alphanumeric.

Enter the parameter to be passed to the Browse exit. None of the Browse exits provided with CA-PanAPT require a parameter.

Final Processing

After filling in the panel, press ENTER. If all required fields include valid data, CA-PanAPT returns you to the Library Code Maintenance Level Processing panel, where you can select another level if you wish.

Discontinue Processing

If you decide to not continue with the Library Code Maintenance function, enter the **END** command (PF3). CA-PanAPT returns you to the Library Code Maintenance Level Processing panel. The information pertaining to this level is unchanged.

Entering Model Specifications

Library Code Maintenance Model Specifications Panel

The Library Code Maintenance Model Specifications panel, APIP917, displays after you press ENTER on the Library Code Maintenance Level Processing panel without entering any line actions, described in a previous section of this chapter.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays the action you have selected.

Library Code / subcode

Display only. CA-PanAPT displays the Library Code / subcode you have selected for viewing or maintenance.

Model Base

Required. Length: 1-4. Type: alphanumeric, no embedded spaces.

This field serves two purposes:

- During modeling, the models create JCL and control statements members on the APTMDLO PDS. The models need to generate unique member names so that there are no conflicts between Library Codes, concurrent movement within the same Library Code at different levels (that is, test to QA at the same time as QA to production), and moves verses backouts.

The modeling facility assists the models by presenting them with a prefix that can be used to assure unique names. The prefix begins with a one character indicator as to whether a move or back out is taking place, a two character number indicating the relative position of the target library level, and the four character model base (with fill padding if it is less than four characters). This gives the models a unique seven character prefix.

To ensure a unique prefix, the model base for each Library Code must be unique. CA-PanAPT ensures this while you are on this panel, and it does not allow you to continue if the model base is not unique.

- Sometimes you might need to control the order in which your Library Codes are presented to the modeling facility. If your models for your Source member Library Codes perform compiles, it might be necessary for you to process Copy/Include member Library Codes before Source member Library Codes. The Model base is used as a sort key for the modeling facility. If the model base of your Copy/Include Library Code is lower than that for your Source Library Code, then Copy/Include members are presented to the modeling facility first.

Note that this description is only an example. There are other ways to ensure that your compiles do not take place before your source is moved regardless of the model base.

The default for your Model Base is your four character Library Code name.

Edit Model Specifications or Browse Model Specifications

Required. Length: 1. Valid values: Y (Yes) or N (No).

This field is titled Edit Model Specifications when the action is ADD or CHG, and is titled Browse Model Specifications when the action is INQ or DEL.

Y

Edit or Browse the model specifications.

N

Bypass the specifications.

When you enter **Y**, the model specifications are staged out to a temporary PDS, so edit or Browse them. You are then taken into ISPF Edit or Browse on the PDS. There you find one member for each type of modeling specification. Any changes made while you are editing this PDS are copied into the Library Code when you are done. When you edit the members, keep in mind that each member is limited to 12 model specification lines. The ISPF editor does not stop you from adding more lines, but if you do so, CA-PanAPT forces you to correct it once you return out of edit.

To end the Edit or Browse of the model specifications, enter the **END** command (PF3) from the member selection list. The Library Code Maintenance Model Specification panel redisplays, with the Edit/Browse Model Specifications field changed to an N.

Final Processing

After filling in the panel, press ENTER. If any of the fields contain invalid data, or if there is a problem detected with model specification members (syntax is not checked), CA-PanAPT redisplays the Library Code Maintenance Model Specifications panel with an appropriate message.

If all of the fields are valid, but you entered **Y** in the Edit/Browse Model Specifications field again, CA-PanAPT takes you back into ISPF Edit or Browse again. Otherwise, CA-PanAPT updates the Library Code, and returns you to the Library Code Maintenance Entry panel.

Discontinue Processing

If you decide to not continue with the Library Code Maintenance function, enter the **END** command (PF3). You then return to the Library Code Maintenance Entry panel and the file is not updated.

Library Codes Command

If you cannot remember the name of a Library Code while you are using CA-PanAPT, you can display a list of all Library Codes. This is done by typing LC on the Command Line and pressing ENTER. This can be done from any panel, except when you are in Library Code maintenance or while setting up the CA-PanAPT User Identification Facility (UIF).

You can scroll through the list using the UP and DOWN commands (PF7 and PF8). If you have several Library Codes, you can use the LOCATE command to position the list to that Library Code. To use the LOCATE command, enter **LOCATE** or **L** on the Command Line followed by the Library Code name. If a Library Subcode is specified, the Library Code must include a slash (**/**), and there should be no embedded spaces. If you want, you can leave off the Library Subcode.

You can view the contents of a Library Code by entering **I** or **INQ** for the action and pressing ENTER. CA-PanAPT takes you into an inquiry of the Library Code using Library Code maintenance (described earlier in this chapter). When the inquiry is done, you return to the Library Code Selection List panel.

If you entered the LC command from a panel where a Library Code had to be specified, in most cases you can select a Library Code from the list. CA-PanAPT returns you to the panel where you entered the LC command and enter the Library Code name for you.

To exit out of the Library Code Selection List panel enter the **END** command (PF3). You then return to the panel where you entered the LC command.

Chapter 4: Inventory Records

This section contains the following topics:

[About Inventory Records](#) (see page 153)
[Inventory File Description](#) (see page 154)
[Inventory Assignment Actions](#) (see page 155)
[Inventory Maintenance Actions](#) (see page 176)

About Inventory Records

CA-PanAPT Inventory Records contain information about members of Production Libraries. The CA-PanAPT Inventory File is a collection of Inventory Records.

This chapter takes you through the functions on the Inventory File Maintenance Entry panel. It explains how to assign responsibility for CA-PanAPT members to users and how to maintain the Inventory File.

This chapter covers these topics:

- Inventory File Description
- Inventory Assignment Actions
  - Assigning Inventory Records
  - Assigning Inventory Records and Retrieving Associated Library Members
  - Releasing Inventory Records
  - Transferring Inventory Records.
  - Inventory Maintenance Actions
  - Selecting Inventory Maintenance Actions
  - Processing Inventory Data

Inventory File Description

The CA-PanAPT Inventory File is a collection of records with information about members of Production Libraries.

Inventory Records serve two purposes:

- They hold information about the member that can be used to control model processing for the member.
- They prevent a member from being used in different Move Requests by assigning responsibility for the member.

There are two sets of activities that can be performed against CA-PanAPT Inventory File Records: Assigning Responsibility and Maintenance.

Assigning Responsibility

Assigning responsibility for CA-PanAPT members to Move Request users includes:

- Assigning responsibility for the member to a user and a Move Request
- Releasing responsibility from a user and a Move Request
- Transferring responsibility to a different user and/or Move Request.

These are done through the CA-PanAPT Inventory Maintenance functions ASN, RET, REL, and TRN, respectively. In addition, a Permanent Owner can be specified to maintain the Inventory member when it is not assigned to a Move Request user.

Retrieve copies members from a destination, such as a production, a backup, or a backout library, to a starting test library. You can only Retrieve members assigned to you. However, if the member is unassigned, it is assigned to you when you request Retrieve. Retrieve is done using the CA-PanAPT Inventory and Move Request maintenance activity RET.

Maintenance

Setup and maintenance of the Inventory Records include adding, updating, deleting, displaying, and approving records. These are done through the CA-PanAPT Inventory Maintenance functions ADD, CHG, DEL, INQ, and APP. Information entered in the Inventory Records is available for use by the modeling language.

If Auto Create is enabled in the Library Code, every time you do an assign (ASN) for an entity that has no Inventory Record, you implicitly do an ADD.

If Auto Retrieve is enabled in the Library Code, every time you do an assign (ASN) for an unassigned entity, you do an implicit RET.

Approving Inventory Records

One of the functions of Inventory Records is to provide data to a CA-PanAPT Model. The reliability of model processing is directly affected by the accuracy of the information in the Inventory Records.

CA-PanAPT maintains a flag in each Inventory Record to indicate whether that Inventory Record has been approved (someone has verified that each of the critical fields contains valid data). For example, models can use the Language Type field to select the compiler to process source members. If the model only checks for COBOL or PL/I, it fails if the field does not contain one of these values. Modeling errors cause the APJJ5320 daily processing job to fail. The inventory approval flag helps to ensure that Inventory Records are acceptable to models.

The person who sets up the Library Codes (usually a System Administrator) indicates on the Library Code whether or not each member using that Library Code requires an Approved Inventory Record. By default, an Approved Inventory Record is not required. The person adding or changing a Library Code can change this default.

You can add an entity with an unapproved Inventory Record to a Move Request even if the Library Code requires approved Inventory Records. CA-PanAPT flags the member to indicate that it requires Inventory Approval. CA-PanAPT also flags the Move Request to indicate that at least one member requires Inventory Approval. You cannot close Move Requests that have been flagged because of unapproved records until all required Inventory Records have been approved.

Inventory Assignment Actions

The Inventory assignment actions are:

- Assign
- Assign and Retrieve
- Release
- Transfer

This section explains those assignment actions by showing you how to:

- Set up a Library Code
- Assign Inventory Records
- Release Inventory Records
- Transfer Inventory Records

Setting up a Library Code

When you set up a Library Code to control a type of member, you must show the relationship between the Library Code and Inventory Records. You can set up a Library Code to relate to the Inventory Records by using Automatic Assignment and Automatic Add.

Automatic Assignment of Inventory Records

A Library Code can be set up to do Automatic Assignment and Automatic Release of Inventory Records. When a user adds members to Move Requests for Library Codes with Auto Assignment, CA-PanAPT tries to assign the Inventory Record to that user. The Inventory ASN function is not required for that Library Code.

Automatic Create of Inventory Records

A Library Code can be set up to do Automatic Create of Inventory Records. When a user explicitly assigns a member or adds it to a Move Request, CA-PanAPT creates the Inventory Record for that member when Auto Add is used. The Inventory ADD function is then performed as part of setting up the Move Request.

Automatic Retrieve

You can set up a Library Code for Automatic Retrieve of the member associated with an Inventory Record. Retrieve processing consists of physically copying a member to the Test Library associated with a Library Code. When you add members to a Move Request for Library Codes with both Auto Assignment and Auto Retrieve enabled, CA-PanAPT tries to assign the Inventory Record to you and generates the appropriate JCL to copy the associated member to the Test Library defined by the Library Code. Thus, you do not have to use the Retrieve function for members whose Library Code enables Automatic Retrieve.

Automatic Retrieve processing occurs for a Move Request member whose Library Code has:

- Automatic Assignment enabled
- Automatic Retrieve enabled.

If the above conditions are true, at the end of Automatic Assignment processing, CA-PanAPT displays the Retrieve Processing Options panel (APIP710) for you to specify the Retrieve options on an individual member basis. The From Member column of the panel table display shows all the members that were successfully assigned. Each member line has default Retrieve options that you can modify. You can scroll through the member table area. When you have selected the appropriate Retrieve options, type **S** on the Command line to begin foreground generation of the Retrieve job stream that is submitted for batch execution.

For further details about the Retrieve Processing Options panel (APIP710), see the "Retrieve Processing" chapter.

Notes:

When a member is deleted from a Move Request, it undergoes Reassign/Release Processing. When a Move Request is deleted, or its status is changed to Move Complete each of its members undergoes Reassign/Release Processing. Refer to the description of Reassign/Release Processing in the "Move Requests" chapter for more information.

Records are never automatically deleted from the Inventory File.

Assigning Inventory Records

Use this panel to perform the Inventory Assignment function. CA-PanAPT assigns the member to the user ID performing this function.

Select the Inventory File Maintenance Function from the CA-PanAPT Main Menu. Type **INV** or **I** in the Action field and press ENTER. The Inventory File Maintenance Entry panel, APIP600, displays.

Panel Field Descriptions

Enter an Action or MSL

Required. Length: 3. Type: alphanumeric.

Type **ASN** or **S** in this field. Or if you are assigning multiple members, you can type **MSL** to display a member selection list from which you can assign multiple members. If you type **MSL**, the Library code / subcode is the only other field required on this panel; all others are not used.

Library code / subcode

Required if the Member list panel field is N. Length: 1-7. Type: alphanumeric

Enter the Library Code/subcode for the member you want to assign. The Library Code/subcode must already exist in CA-PanAPT. Members with the same name but a different Inventory qualifier are treated as distinct by CA-PanAPT.

If the Member list panel field is Y, this value appears as the default Library Code/subcode on each line of the Inventory Member List panel.

Member

Required if the Member list panel field is N. Length: 1-10. Type: alphanumeric.

Enter the name of the member you want to assign.

If the Member list panel field is Y, this value appears as the default Member value on each line of the Inventory Member List panel.

Transfer to User

Length: 1-8. Type: alphanumeric.

Leave this field blank. CA-PanAPT displays an error message if you enter data into this field while the Action is Assign (ASN).

Assign/Transfer to Move Request

Optional. Length: 1-6. Type: numeric.

Enter the specific Move Request that is to be responsible for the member. The member must already be added to the Move Request.

If Inventory Member List panel is Y, this value appears as the default Move Request on each line of the Inventory Member List panel.

If you leave this field blank and your system requires assignment to a Move Request (defined with Control File System Information on panel APIP995), CA-PanAPT automatically assigns responsibility to the Move Request with the earliest scheduled move date that has this member defined.

Member List Panel

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y

More than one member is processed. CA-PanAPT displays the Inventory Member List panel so you can specify and assign several members at once. A value of Y also makes the Member and the Library code / subcode fields optional.

N

This is the default. Only the member named is assigned. No list panel is displayed.

Member list panel

After typing the above information, press ENTER to perform the Assignment function.

If the Member list panel field was set to N, the assignment of the member is processed immediately. If it was set to Y, the Inventory Member List panel is displayed. See the description of processing for the Inventory Member List panel later in this chapter. Processing of assignments is done based on data entered on that panel.

Processing Rules

Regardless of when the assignment request is processed, immediately or from the Inventory Member List panel, the following rules apply:

- **Processing When the Member is on the Inventory File.**

  When the Inventory Record for the specified member is on the Inventory File, CA-PanAPT assigns the member to you, if the member is not already assigned to someone else and you are authorized to perform this function. Otherwise, CA-PanAPT displays an error message indicating which condition was not met.

- **Processing When the Member is not on the Inventory File.**

  When the Inventory Record for the specified member is not on the Inventory File and the Library Code has both Inventory and Assignment enabled, CA-PanAPT attempts to add the Inventory Record to the Inventory File and assigns the member to you depending on the following conditions.

  - Auto Add is Enabled. When Auto Add is enabled for the Library Code you entered and you press ENTER, the Inventory File panel displays so you can override any of the inventory default fields for this member. After you have set up the Inventory Record, CA-PanAPT re-displays the panel that initiated the assignment of the member.
  - Auto Add is Not Enabled. When Auto Add is not enabled for the Library Code you entered, you receive an error message stating that the assignment has failed. You must use the Inventory ADD function to add the member before you can assign it.

Assigning Inventory Records with Member Retrieve

Use this panel to perform the Inventory Assignment and Member Retrieve function. You can Assign and Retrieve a member as many times as you want as long as the member is assigned to you. It can be assigned to you prior to the request or as part of processing the RET request.

To select the Inventory File Maintenance Function from the CA-PanAPT Main Menu, type **INV** or **I** in the Action field and press ENTER. The Inventory File Maintenance Entry panel, APIP600, displays.

Panel Field Descriptions

Enter an Action or MSL

Required. Length: 3. Type: alphanumeric.

Type **RET** in this field. Or if you are assigning and retrieving multiple members, you can type **MSL** to display a member selection list from which you can process multiple members. If you type **MSL**, the Library code / subcode is the only other field required on this panel; all others are not used.

Library code / subcode

Required if the Member list panel field is N. Length: 1-7. Type: alphanumeric.

Enter the Library Code/subcode for the member you want to Retrieve. The Library Code/subcode must already exist in CA-PanAPT. Members with the same name but different Library Codes are unique to CA-PanAPT.

If the Member list panel field is Y, this value appears as the default Library Code/subcode on each line of the Inventory Member List panel.

Member

Required if the Member list panel field is N. Length: 1-10. Type: alphanumeric.

Enter the name of the member you want to Retrieve.

If the Member list panel field is Y, this value appears as the default Member value on each line of the Inventory Member List panel.

Transfer to User

Length: 1-8. Type: alphanumeric.

Leave this field blank. CA-PanAPT displays an error message if you enter data into this field for any Action except Transfer (TRN).

Assign/Transfer to Move Request

Optional. Length: 1-6. Type: numeric.

Enter the specific Move Request that is to be responsible for the member. The member must already be added to the Move Request. If the member is already assigned, this field is ignored.

If the Member list panel field is Y, this value appears as the default Move Request on each line of the Inventory Member List panel.

If you leave this field blank and your system requires assignment to a Move Request (defined with Control File System Information on panel APIP995), CA-PanAPT automatically assigns responsibility to the Move Request with the earliest scheduled move date that has this member defined.

Member list panel

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y

More than one member is processed. CA-PanAPT displays the Inventory Member List panel so you can specify and process several members at once. Y also makes the Member, Library code / subcode, and Transfer to User fields optional.

N

This is the default. Only the member named can be retrieved. No list panel is displayed.

Final Panel Processing

After typing the above information, press ENTER to perform the Assignment with Retrieve function.

If the Member list panel field was set to N, the assignment of the member is processed immediately. If it was set to Y, the Inventory Member List panel is displayed. See the description of processing for the Inventory Member List panel later in this chapter, processing of assignments is done based on data entered on that panel.

Processing Rules

Regardless of when the assignment request is processed, immediately or from the Inventory Member List panel, the following rules apply.

- CA-PanAPT performs the Assignment function first. For details concerning Assignment processing, consult Final Panel Processing in Assigning Inventory Records, the section immediately before this one. If a member is already assigned to you, CA-PanAPT considers it successfully assigned.
- If Retrieve is enabled for the current Library Code all successfully Assigned members are now eligible for Retrieve processing provided.

If the above conditions apply, CA-PanAPT displays the Retrieve Processing Options, panel, APIP710 so you can specify Retrieve options on an individual member basis. CA-PanAPT displays all of the successfully assigned members in the From Member column of the panel table display. Each member line has default Retrieve options that you can modify, you can scroll through the member table area. When you have selected the appropriate Retrieve options, type **S** on the Command line to begin the foreground generation of the Retrieve job stream, which is submitted to batch processing.

For further details concerning the Retrieve Processing Options panel, APIP710, see the "Retrieve Processing" chapter.

Releasing Inventory Records

Use this panel to perform the Inventory Release function. You can release an Inventory member assigned to you by using the following process:

Select the Inventory File Maintenance Function from the CA-PanAPT Main Menu. Type **INV** or **I** in the Action field and press ENTER. The Inventory File Maintenance Entry panel, APIP600, displays.

Panel Field Descriptions

Enter an Action or MSL

Required. Length: 3. Type: alphanumeric.

Type **REL** in this field. Or if you are releasing multiple members, you can type **MSL** to display a member selection list from which you can process multiple members. If you type **MSL**, the Library code / subcode is the only other field required on this panel; all others are not used.

Library code / subcode

Required if the Member list panel field is N. Length: 1-7. Type: alphanumeric.

Enter the Library Code/subcode for the member you want to release.

If the Member list panel field is Y, this value appears as the default Library Code/subcode on each line of the Inventory Member List panel.

Member

Required if the Member list panel field is N. Length: 1-10. Type: alphanumeric.

Enter the name of the member you want to release.

If the Member list panel field is Y, this value appears as the default Member value on each line of the Inventory Member List panel.

Transfer to User

Length: 1-8. Type: alphanumeric.

Leave this field blank. CA-PanAPT displays an error message if you enter data into this field while the Action is Release (REL).

Assign/Transfer to Move Request

Length: 1-6. Type: numeric.

This field is not used when the Action is Release (REL).

Member list panel

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y

More than one member is processed. CA-PanAPT displays the Inventory Member List panel so you can specify and release several members at once. Y also makes the Member and Library code / subcode fields optional.

N

This is the default. Only the member named is released. No list panel is displayed.

Final Panel Processing

After typing the above information, press ENTER to perform the Release function.

If the Member list panel field was set to N, the transfer request is processed immediately. If it was set to Y, the Inventory Member List panel is displayed. See the description of processing for the Inventory Member List panel later in this chapter, processing of releases is done based on data entered on that panel.

Processing Rules

Regardless of when the assignment request is processed, immediately or from the Inventory Member List panel, the following rules regarding member release apply.

Conditions for Member Release:

- CA-PanAPT releases the member if the specified member has been assigned to you and you are authorized to perform this function.
- If the Inventory Record was not previously assigned to you, you receive a message stating that the release has failed.

Note: A System Administrator can release Inventory Records assigned to other users.

Transferring Inventory Records

Use this panel to perform the Inventory Transfer function. You can Transfer an Inventory member to another CA-PanAPT user and/or Move Request with the following process:

Select the Inventory File Maintenance Function from the CA-PanAPT Main Menu. Type **INV** or **I** in the Action field and press ENTER. The Inventory File Maintenance Entry panel, APIP600, displays.

Panel Field Descriptions

Enter an Action or MSL

Required. Length: 3. Type: alphanumeric.

Type TRN or T in this field. Or if you are transferring multiple members, you can type MSL to display a member selection list from which you can process multiple members. If you type MSL, the Library code / subcode is the only other field required on this panel; all others are not used.

Library code / subcode

Required if the Member list panel field is N. Length: 1-7. Type: alphanumeric.

Enter the Library Code/subcode for the member you want to transfer.

If the Member list panel field is Y, this value appears as the default Library Code/subcode on each line of the Inventory Member List panel.

Member

Required if the Member list panel field is N. Length: 1-10. Type: alphanumeric.

Enter the name of the member you want to transfer.

If the Member list panel field is Y, this value appears as the default Member value on each line of the Inventory Member List panel.

Transfer to User

Optional when Action is TRN, unless Member list panel is N and Assign/Transfer to Move Request is blank, in which case it is required. Must not be present if Action is not TRN.

Length: 1-8. Type: alphanumeric.

Enter the user ID of the user to whom you are transferring responsibility.

If the Member list panel field is Y, this value appears as the default Member value on each line of the Inventory Member List panel.

If you leave this field blank, responsibility is not transferred to another user, only to another Move Request.

Assign/Transfer to Move Request

Required when Action is TRN and Member list panel is N and Transfer to User is blank, otherwise optional.

Length: 1-6. Type: numeric.

Enter the specific Move Request to which you are transferring responsibility for the member. The member must already be added to the Move Request.

If the Member list panel field is Y, this value appears as the default Move Request on each line of the Inventory Member List panel.

If you leave this field blank, responsibility is not transferred to another Move Request, only to another user.

Member list panel

Required. Length: 1. Valid values: Y (Yes) or N (No):

Y

More than one member is processed. CA-PanAPT displays the Inventory Member List panel so you can specify and transfer several members at once. Y also makes the Member, Library code / subcode, Transfer to User, and Assign/Transfer to Move Request fields optional.

N

This is the default. Only the member named is transferred. No list panel is displayed.

Final Panel Processing

After typing the above information, press ENTER to perform the Transfer function. If the Member list panel field was set to N, the transfer request is processed immediately. If the Member list panel field was set to Y, the Inventory Member List panel is displayed. See the description of processing for the Inventory Member List panel later in this chapter. Transfer processing is done based on data entered on that panel.

Processing Rules

CA-PanAPT transfers the member if you are authorized to perform this function, meaning one or more of the following is true:

- You are a System Administrator.
- In the Control File for this activity, at least one of the following is true:
  - Y is entered for Anyone
  - Y is entered for Users sharing a group and you are in the same group as the assigned-to user
  - Y is entered for Operations and you have Operations authority
  - Y is entered for Group Administrators and you are a Group Administrator in a group you share with the assigned-to user.
- Your user ID is authorized for this activity.
- Your group has authority for this activity.
- This member is assigned to you, and Y is entered for Owner in the Control File for this activity.

Using the Inventory Member Selection List

For all Inventory actions except ADD, you can work off a list of existing Inventory. To select the Inventory File Maintenance Function from the CA-PanAPT Main Menu, type **INV** or **I** on the Command Line and press ENTER. The Inventory File Maintenance Entry panel, APIP600, displays.

Panel Field Descriptions

Enter an Action or MSL

Required. Length: 3. Type: alphanumeric.

Type MSL in this field.

Library code / subcode

Required. Length: 1-7. Type: alphanumeric.

Enter the Library Code/subcode for the members to include in the list. The Inventory Member Selection List processes only one Library Code's Inventory at a time.

Member

Not used.

Transfer to User

Not used.

Assign/Transfer to Move Request

Not used.

Member list panel

Not used.

Final Panel Processing

After typing the above information, press ENTER. The Inventory Selection Criteria panel, APIP153, displays.

Discontinue Processing

If you want to exit this function without producing a member selection list, enter the **END** command (PF3). You then return to the CA-PanAPT Main Menu.

Using the Inventory Selection Criteria Panel

From the Inventory Selection Criteria panel, APIP153, you specify what Inventory you want to include in the member selection list.

Panel Field Descriptions

Library Code

Required. Length: 1-7. Type: alphanumeric.

Enter the Library Code/subcode for the members you want to include in the list. Initially, the Library Code/subcode entered on the Inventory File Maintenance Entry panel appears. If you cannot remember the names of your Library Codes, you can display a Library Code list by typing LC on the Command Line and pressing ENTER. You can then select a Library Code from the list, and it is entered on this panel for you.

All other fields on this panel are optional. If you leave them all blank, then all Inventory for this Library Code is included on the member selection list.

Members Starting with

Optional. Length: 1-10. Type: alphanumeric.

Only members whose name begin with these characters are included on the member selection list (MSL).

Assigned

Optional. Length: 1. Valid values: Y (Yes), N (No), or blank.

If Y is specified, only assigned members are included on the MSL. If N is specified, only unassigned members are included.

Assigned to user

Optional. Length: 1-8. Type: alphanumeric.

Only members that are assigned to the specified user ID are included on the MSL.

Assigned to MR

Optional. Length: 1-6. Type: numeric.

Only members that are assigned to the specified Move Request are included on the MSL.

Approved

Optional. Length: 1. Valid values: Y (Yes), N (No), or blank.

If Y is specified, only approved members are included on the MSL. If N is specified, only unapproved members are included.

Owner

Optional. Length: 1-8. Type: alphanumeric.

Only members currently "owned by" the specified user ID are included on the MSL.

Environment

Optional. Length: 1-8. Type: alphanumeric.

Only members having the same value as specified are included on the MSL.

Application

Optional. Length: 1-8. Type: alphanumeric.

Only members having the same value as specified are included on the MSL.

Language

Optional. Length: 1-8. Type: alphanumeric.

Only members having the same value as specified are included on the MSL.

Last Moved by MR

Optional. Length: 1-6. Type: numeric.

Only members having the same value as specified are included on the MSL.

Final Panel Processing

After typing the above information, press ENTER. The Inventory Maintenance MSL Entry panel, APIP650, displays.

Discontinue Processing

If you want to exit this function without producing a member selection list, enter the **END** command (PF3). You then return to the Inventory File Maintenance Entry panel.

Inventory Maintenance MSL Entry Panel

On the Inventory Maintenance MSL Entry panel, APIP650, you are presented a list of inventory matching your selection criteria. You can scroll through the list using the UP and DOWN commands (PF7 and PF8). From this panel you can initiate any Inventory Maintenance or Member Assignment action for the listed members, with the exception of adding new members.

Panel Field Descriptions

ACT

Optional. Length: 1. Type: alphabetic.

Enter an Inventory Maintenance or Member Assignment action. The Inventory Maintenance actions are:

C

Change an Inventory record

P

Approve or unapprove an Inventory record

I

Inquire or view an Inventory record

D

Delete an Inventory record

The Member Assignment actions are:

A

Assign the Inventory to yourself

L

Release assignment

R

Assign the Inventory to yourself, if not already assigned to you, and Retrieve the member into the beginning migration library for the Library Code (normally called the Test library). Also see the "Retrieve Processing" chapter.

T

Transfer assignment to another user and/or Move Request.

Verify

Optional. Length: 1. Type: alphabetic

This field is used only when a D (Delete) action has been specified. If N is typed into this field, the delete action does not display the Inventory for your verification. This can save time when you are deleting multiple Inventory records and you are positive they are the ones you want to delete.

Member

Display only. The name of the member is displayed.

To Userid

Optional. Length: 1-8. Type: alphanumeric.

Specify the name of the user to transfer assignment to. This field is used only for the T (Transfer) action.

To Move Request

Optional. Length: 1-6. Type: numeric.

Specify the Move Request number to assign or transfer assignment of the member to. This field is used only for the A (Assign) and T (Transfer) actions.

Final Panel Processing

After typing the above information, press ENTER. For all Inventory Maintenance actions, except D (Delete) with N specified for Verify, the Inventory File Maintenance Entry panel, APIP600, displays. For the Retrieve action, the Retrieve Processing Options panel, APIP710, displays. After all actions are complete, the Inventory Maintenance MSL Entry panel redisplays.

Discontinue Processing

If you want to exit this function without producing a member selection list, enter the **END** command (PF3). You then return to the Inventory File Maintenance Entry panel.

Inventory Member List

CA-PanAPT displays the Inventory Member List panel, APIP630 only if the Member list panel field on the Inventory File Maintenance Entry panel is Y. Except for the Command line, the fields on the Inventory Member List panel are pre-filled based on your input on the Inventory Maintenance panel. The Action and Message fields are for display only, you cannot modify them. You can modify the Member, Lib/Subcode, User, and Move Request fields by typing over the default data.

When you enter **Y** in the Member list panel field, any characters placed in the Member field on the Inventory File Maintenance Entry panel are displayed in the Member field of the Inventory Member List panel. This feature lets you enter full or partial Member data that speeds the entry process and helps reduce typing errors.

Panel Field Descriptions

Action

Display Only. This is the Action that you specified on the Inventory File Maintenance Entry panel.

Member

Required. Length: 10. Type: alphanumeric.

Each field in this column is initialized to the same value as the Member field of the Inventory File Maintenance Entry panel. You can type over the names or append to them. This field must be blank if you do not want the line to be processed. Erase any default member value to prevent processing for that line.

Lib/Subcode

Required. Length: 4/3. Type: alphanumeric.

Each field in this column is initialized to the same value as the Library code / subcode field of the Inventory File Maintenance Entry panel. You can type over the values or append to them.

User

Optional for TRN (transfer) function. Otherwise leave blank. Length: 8. Type: alphanumeric.

Each field in this column is initialized to the same value as the Transfer to User field of the Inventory File Maintenance Entry panel. You can type over the values or append to them.

You must specify the User field for the TRN (transfer) function unless you are simply transferring responsibility to another Move Request. Leave it blank for all other functions. CA-PanAPT displays an error message and the action fails for the member if you specify User for an action other than TRN.

Move Request

Optional. Length: 1-6. Type: numeric.

Each field in this column is initialized to the same value as the Assign/Transfer to Move Request field of the Inventory File Maintenance Entry panel. You can type over the values.

Message

Display only. Each line in this column is filled in when processing for that member is completed. If the action was successful for the member, the message on this panel is:

```
successful
```

If all members on the panel are processed successfully, CA-PanAPT redisplays the panel with the default values and a message indicating the number of entries processed on the previous panel.

If the action fails for any member, the updated panel shows completion messages for all members up to the failing one. The failed member has an abbreviated error message. The full text of the error message is shown at the top of the panel. The rest of the members below the line with the error are not processed until you correct the error or remove the failing member name.

Final Panel Processing

You have two options while viewing this panel:

- You can press ENTER. CA-PanAPT processes the lines that specify a member name and have not yet been processed successfully. When all members have been processed successfully, CA-PanAPT displays the panel with defaults reset and messages cleared.
- You can terminate processing by entering the **END** command (PF3).

You cannot scroll this panel.

Processing Flow

The Action field at the top of the panel determines the processing that CA-PanAPT does on each member specified. The Action also determines which fields are required. For example, Assign and Release actions each require Member and Library Code/subcode entries. The Transfer action requires these two fields along with the To User field.

When you press ENTER, CA-PanAPT starts processing lines, starting from the top of the panel, that have not been processed yet (that have an error message or a blank message). CA-PanAPT stops processing when it encounters the first error.

Line data to be processed is passed to the Inventory Maintenance program in the same manner as if it were entered on the Inventory File Maintenance Entry panel. The Message fields for successfully processed data lines are updated with the message:

```
successful
```

Data Entry

You can enter data on any Member data line on the panel. You can also change a default value by typing over a portion or all of the value. A default can also be changed by appending characters before or after the default value. No panel-specific commands are allowed on the Command line. **END** (PF3) is the only valid command and it terminates processing for this panel. It returns you to the Inventory File Maintenance Entry panel.

Error Conditions

Errors are identified with:

```
ERROR--See message above
```

Errors display in the Message field. Panel processing stops when the first error is detected. An expanded error message associated with the error line is displayed below the Command line, at the top of the panel. After viewing the error message, you can process the lines below the error line by correcting or removing the erroneous entry and pressing ENTER again.

Termination

This panel continues to display until you enter the **END** command (PF3). Remember to press ENTER before entering the **END** command (PF3) to process any new data on the panel.

If any Retrieve processing is required, the Retrieve Processing Options panel is displayed. Retrieve processing might be required because you specified the RET action or because you specified ASN for some members that belong to Library Codes that have Automatic-Retrieve-at-Assignment enabled.

The Inventory File Maintenance Entry panel is displayed with a line of totals indicating the number of members updated and the number of errors encountered.

Inventory Maintenance Actions

The Inventory Maintenance actions are:

- Add (ADD or A)
- Change (CHG or C)
- Delete (DEL)
- Display (INQ or I)
- Approve (APP or P).

This section explains these maintenance actions by showing you:

- How to access the Inventory File Maintenance Entry panel
- How to process inventory data

Selecting Inventory Maintenance Activities

To access the Inventory File Maintenance Entry panel from the CA-PanAPT Main Menu, type **INV** or **I** in the Action field and press ENTER. The Inventory File Maintenance Entry panel, APIP600, displays.

Select the Inventory File Maintenance activities you want to perform from this panel.

Except as noted, the fields described below are not edited by CA-PanAPT. These fields and the other inventory data are available to any CA-PanAPT Models developed at your site (see Chapter 6, "Modeling Facility," in the *CA-PanAPT AdministratorGuide*.) It is each site's responsibility to ensure that the values entered in these unedited fields are acceptable to any site-developed models.

Panel Field Descriptions

Enter an Action or MSL

Required. Length: 1-3. Type: alphabetic.

Valid values, listed below, are used to:

ADD (or A)	add an Inventory Record
CHG (or C)	change (update) an Inventory Record
DEL	delete an Inventory Record
INQ (or I)	inquire (browse) an Inventory Record
APP (or P)	approve an Inventory Record

Enter the required action in the Enter an Action or MSL field.

Note: The Assignment actions of ASN, RET, REL, and TRN are discussed in the previous section Inventory Assignment Actions.

Library code/subcode

Required. Length: 1-7. Type: alphanumeric.

Enter the Library Code/subcode for the Inventory Member you want to update. The Library Code/subcode must already exist in CA-PanAPT. CA-PanAPT treats members with the same name but different Inventory qualifiers as distinct members.

Member

Required. Length: 1-10. Type: alphanumeric.

Enter the member name for the Inventory Member you want to update. If your selected function is ADD, the member must be new (not currently on the Inventory File). For all other functions, the member must already exist on the Inventory File (previously added).

Transfer to User

Optional. Length: 1-8. Type: alphanumeric.

This field is required for the TRN function. See the section Transferring Inventory Records presented earlier in this chapter. Leave this field blank for Inventory Maintenance activities. When you leave data in this field and try to perform a function other than TRN, an error message displays, as shown below:

```
Field Must Be Blank
```

Assign/Transfer to Move Request

Not used. Length: 1-6. Type: numeric.

This field is used for the ASN, RET, and TRN Actions described earlier. It is not used for the ADD, CHG, DEL, INQ, and APP Actions.

Member list panel

Required. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

You must enter **N** for Inventory Maintenance Actions. Y is ignored. Any other value is invalid and causes CA-PanAPT to display an error message.

Final Panel Processing

After all necessary fields are filled in, press ENTER.

Discontinue Processing

You can exit this activity at any time by entering the **END** command (PF3), and return to the CA-PanAPT Main Menu without updating the Inventory File.

Processing Inventory Data

You can process inventory data by adding (ADD), changing (CHG), deleting (DEL), viewing (INQ), and approving (APP) Inventory Records. All of these procedures are performed from the Inventory File panel.

Accessing the Inventory File Panel

After you enter the required function on the Inventory File Maintenance Entry panel, APIP600 or on the Inventory Maintenance MSL Entry panel, APIP650 and press ENTER, the Inventory File panel, APIP610, displays.

This panel displays all Inventory Record data, except for the Compile and Link-edit options and the Inventory User Data. To display this information, change N on Compile/Link Options and Inventory/User data fields to Y.

Panel Field Descriptions

The following panel fields are available to models unless they have the statement Not available to Models.

Action

Display only. Not available to Models.

CA-PanAPT displays your selected action in this field.

Inventory qualifier

Display only. CA-PanAPT displays the Inventory Qualifier for this Inventory Member.

Member

Display only. CA-PanAPT displays the Member name you entered on the previous panel.

Assigned

Display only. Valid values: Y (Yes) or N (No).

Whether or not the Inventory Member is currently assigned to a CA-PanAPT user.

to user ID

Display only. The user ID of the CA-PanAPT user to whom this member is assigned. A member can be assigned to only one user at a time.

Move Request

Display only. The number of the Move Request to which this member is assigned.

Approved

Required for APP. Not Available to Models. Display only for ADD, CHG, INQ, and DEL.

Valid values: Y (Yes) or N (No). Default: N.

This flag indicates whether or not the Inventory Record has been approved by a CA-PanAPT user.

When setting up Inventory Records using the Batch utilities (APJJ6910 and APJJ6920), you can indicate whether the Inventory Records are marked approved.

The Approved field of Inventory Records added by means of the ADD or Auto Add functions is set according to the Library Code definition that you specified on the Library Code Maintenance - Inventory Options panel. You can change it by using the Inventory Edit exit.

Unapproved Inventory Records can prevent the Closing of a Move Request. An Inventory Record can only be changed using the Approve activity while it is in Approved Status. Before you can change an Inventory Record, you must first change the status to Unapproved. You can change the status back to Approved after completing the Inventory Record change and reviewing it for completeness and accuracy.

Owned by

Optional. Length: 1-8. Type: alphanumeric.

The TSO userid of the person or the CA-PanAPT group name that is considered the Permanent Owner of this member.

The Permanent Owner is responsible for the member when it is not Assigned to any other CA-PanAPT user.

Library Code/subcode

Optional. Length: 1-7. Type: alphanumeric.

This field contains the Library Code/subcode associated with this member. The Library Code/subcode entered in this field must be a currently defined CA-PanAPT Library Code/subcode.

Description

Optional. Length: 1-55. Type: alphanumeric.

Enter a description of the member in this field.

Comments

Optional. Length: 1-55. Type: alphanumeric.

Enter a comment about the member in this field.

Environment

Optional. Length: 1-8. Type: alphanumeric.

This field contains information about the Environment of the member. CA-PanAPT does not edit the data entered into this field.

Application

Optional. Length: 1-8. Type: alphanumeric.

This field contains information about the Application of the member. CA-PanAPT does not edit the data entered into this field.

Language

Optional. Length: 1-8. Type: alphanumeric.

This field contains information about the Language of the member. CA-PanAPT does not edit the data entered into this field.

Add, change, or view...

Compile/Link Options

Optional. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No).

This field controls the display of the Inventory Compile/Link Options panel, APIP612.

If you want to add Inventory records:

Y

This Inventory has default Compile/Link Options from its Library Code. After pressing ENTER, the Inventory Compile/Link Options panel displays. You can change one or more fields at this time. To delete a field, space it out. After pressing ENTER, the Inventory File panel redisplays, and this field is changed to N. If the Add, change, or view... User data was also Y, the Inventory/User Data panel displays first, before you are returned to the Inventory File panel. You can change this field back to a Y if you want to make more changes to the Compile/Link Options.

If you do not want the Library code default Compile/Link Options copied to the Inventory, change this field to an N.

N

There are no default Library Code Compile/Link Options. To add them to the Inventory, type in a Y and press ENTER.

If you want to change existing Inventory records:

Y

The Inventory member has Compile/Link Options. After pressing ENTER, the Inventory Compile/Link Options panel displays. You can change one or more fields at this time. To delete a field, space it out. After pressing ENTER, the Inventory File panel redisplays, and this field is changed to N. If the Add, change, or view... User data was also Y, the Inventory/User Data panel displays first, before you are returned to the Inventory File panel. You can change this field back to a Y if you want to make more changes of the Compile/Link Options.

N

The Inventory member has no Compile/Link Options. To add them to the Inventory, type in a Y and press ENTER.

User data

Optional. Length: 1. Type: alpha. Valid values: Y (Yes) or N (No).

This field controls the display of the Inventory/User Data panel, APIP611.

If you want to add Inventory records:

Y

This Inventory member has default Inventory/User data from its Library Code. After pressing ENTER, the Inventory/User Data panel displays. You can change one or more fields at this time. To delete a field, space it out. After pressing ENTER, the Inventory File panel redisplays, and this field is changed to N. You can change this field back to a Y if you want to make more changes to the Inventory/User data fields. If you do not want the Library Code default Inventory/User data fields copied to the Inventory, change this field to N.

N

There are no default Library Code Inventory/User data fields. To add Inventory/User data fields in this case, type a Y and press ENTER. The Inventory/User Data panel displays.

If you want to change existing Inventory records:

Y

The Inventory member has User-defined fields. After pressing ENTER, the Inventory/User Data panel displays. You can change one or more fields at this time. To delete a field, space it out. After pressing ENTER, the Inventory File panel redisplays, and this field is changed to N. You can change this field back to a Y if you want to make more changes to the Inventory/User data fields.

N

The Inventory member has no Inventory/User data fields. To add Inventory/User data fields in this case, type a Y and press ENTER. The Inventory/User Data panel displays.

Last updated by ( ) on ( ) at ( )

Display only. Not available to Models.

by

the TSO userid of the CA-PanAPT user who last updated this Inventory Record.

on

the date of the last update of this Inventory Record. Format is as specified in the Control File System Information.

at

the time of the last update of this Inventory Record. Format is as specified in the Control File System Information.

Last moved by move request

Display only. Not available to Models.

The Move Request number of the last Move Request to move the member represented by this Inventory Record into Production.

Final Panel Processsing

If either the Add, change, or view... Compile/Link Options or Inventory/User data fields are Y, the corresponding entry panels are displayed, and then the Inventory File panel redisplays, and these fields are changed to N.

When both the Add, change, or view... Compile/Link Options and Inventory/User data fields are N and you press ENTER, the requested activity takes place. CA-PanAPT returns you to the Inventory File Maintenance Entry panel when you are finished.

Discontinue Processing

You can exit this activity at any time by entering the END command (PF3) to return to the previous panel. CA-PanAPT does not update the Inventory Record.

Processing Summary

This table summarizes the functions you can use on the Inventory File panel and the processing that is allowable for each function:

Function	Description	Allowable Panel Processing
ADD	Adding Inventory Records	View the displayed data Modify the displayed data
CHG	Changing Inventory Records	View the displayed data Modify the displayed data
DEL	Deleting Inventory Records	View the displayed data Delete data
INQ	Viewing Inventory Records	View the displayed data
APP	Approving Inventory Records	View the displayed data Change the Approved Flag to Y or N Modify other fields as needed (if authorized)

Processing Compile/Link Options

CA-PanAPT processes the data entered on this panel using the same action entered on the Inventory File Maintenance Entry panel, APIP600, or on the Inventory Maintenance MSL Entry panel, APIP650.

Accessing the Inventory Compile/Link Options Panel

The Inventory Compile/Link Options panel, APIP612, displays when you enter **Y** in the Add, change, or view... Compile/Link Options field of the Inventory File panel, APIP610, and press ENTER.

Use this panel to specify pre-compile, compile, and link-edit options. You can also use this panel if you need to override the Library Code regarding whether object and listings are saved and whether executable is created.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays your selected action in this field.

Inventory qualifier

Display only. CA-PanAPT displays the Inventory Qualifier for this Inventory Member.

Member

Display only. CA-PanAPT displays the member name you specified or selected.

Options

Compiler

Optional. Length: 1-60. Type: alphanumeric.

This field contains the Compiler options for the member. CA-PanAPT does not edit the data entered in this field.

Link edit

Optional. Length: 1-60. Type: alphanumeric.

This field contains the link-edit options for the member. CA-PanAPT does not edit the data entered in this field.

DB precomp

Optional. Length: 1-60. Type: alphanumeric.

This field contains the database precompile options. CA-PanAPT does not edit the data entered in this field. These are intended for any database precompile, such as DB2, CA-IDMS, and CA-DATACOM.

CICS precomp

Optional. Length: 1-60. Type: alphanumeric.

This field contains the CICS precompile options for the member. CA-PanAPT does not edit the data entered in this field.

Link stream member

Optional. Length: 1-10. Type: alphanumeric.

This field contains the name of a link-edit control statement member to be used for the link-edit step of a compile and link.

Library Code overrides

Through the Library Code Maintenance Related Library Codes panel, APIP91B, the related Library Codes for storing listings, object, and load modules were specified. If a Library Code was specified for any of these, the assumption is that you are going to save or create these outputs in your compile and link-edit models. If the Library was left blank, the assumption is that you are not going to keep these outputs. However, you can override this using the Library Code overrides.

There are two columns provided for each type of output. The first column is where you enter the override. Enter **Y** to indicate that you want to keep this output. Enter **N** to indicate that you do not want to keep this output. Or leave this field blank to indicate that you want to go along with the assumption, based on the specification of a related Library Code. The second column, under the heading Library Code Support, indicates what the assumption is. That is, it indicates whether a related Library Code was specified.

Note: If you specify Y for any of the fields that report an N for Library Code Support, you must alter the distributed compile and link modules to specify an output data set. As distributed, the compile and link modules issue an error message under this condition.

Save listings

Optional. Length: 1. Valid values: Y (Yes), N (No), and blank.

This field overrides whether compile and link-edit listings are saved on a data set. If blank, listings are saved only if there is a related Library Code for output listings.

Save object

Optional. Length: 1. Valid values: Y (Yes), N (No), and blank.

This field overrides whether object from the compile is saved on a data set. If blank, object is saved only if there is a related Library Code for object modules.

Create load

Optional. Length: 1. Valid values: Y (Yes), N (No), and blank.

This field overrides whether load modules are created during compiles. If blank, load modules are created only if there is a related Library Code for load modules.

Final Panel Processing

When you have viewed or updated data on this panel, press ENTER. CA-PanAPT returns you to the Inventory File panel or proceeds to the Inventory/User Data panel if it was also requested from the Inventory File panel.

Discontinue Processing

If you want to exit this function without completing the action, enter the **END** command (PF3). You then return to either the Inventory File Maintenance Entry panel or the Inventory Maintenance MSL Entry panel.

Processing Inventory/User Data

CA-PanAPT processes the data entered on this panel using the same action entered on the Inventory File Maintenance Entry panel, APIP600, or on the Inventory Maintenance MSL Entry panel, APIP650.

Accessing the Inventory/User Data Panel

The Inventory/User Data panel, APIP611, displays when you enter **Y** in the Add, change, or view... User data field of the Inventory File panel, APIP610, and press ENTER. This panel displays all of the Inventory/User data entered.

Use this panel to enter or view additional free-form inventory/user data. The data from this panel is stored with the data from the Inventory File panel, APIP610. The Action, Inventory Qualifier, and Member are also carried over from APIP610.

Note: The format and text of your panel might be different than the one shown here. See your CA-PanAPT Administrator for more details.

Panel Field Descriptions

Action

Display only. CA-PanAPT displays your selected action in this field.

Inventory Qualifier

Display only. CA-PanAPT displays the Inventory Qualifier for this Inventory Member.

Member

Display only. CA-PanAPT displays the Member name you entered on the previous panel.

User0001 through User005

Optional. Length: 1-8. Type: alphanumeric.

These fields are freeform.

User 0006 through User0010

Optional. Length: 1-16. Type: alphanumeric.

These fields are freeform.

User0011 through User0020

Optional. Length: 1-50. Type: alphanumeric.

These fields are freeform.

Final Panel Processing

When you have viewed or updated data on this panel as desired, press ENTER. CA-PanAPT returns you to the Inventory File panel.

Discontinue Processing

If you want to exit this function without completing the action, enter the **END** command (PF3). You then return to the Inventory File Maintenance Entry panel or the Inventory Maintenance MSL Entry panel.

Chapter 5: Move Requests

This chapter describes Move Requests and shows how to maintain and update them.

This section contains the following topics:

Contents of a Move Request (see page 189)
Move Request Maintenance (see page 195)
Describing the Move Request (see page 198)
Entering Member Data for Any Library Codes (see page 209)
Entering New Member Data (see page 219)
Library MSL Selection Criteria Panel (see page 224)
Inventory Selection Criteria Panel (see page 226)
Impact Analysis MSL Options Panel (see page 228)
Move Request Member MSL Selection Criteria Panel (see page 231)
Member Scratchpad MSL Selection Criteria Panel (see page 232)
Member Selection List Panel (see page 233)
Closing a Move Request (see page 236)
Backing Out a Move Request (see page 240)
Running Verification Procedures (see page 247)
View Approvals Panel (see page 249)
Approving Move Requests (see page 251)
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Changing Move Request Statuses (see page 258)
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Printing a Move Request (see page 263)
Browsing Move Requests (see page 265)

Contents of a Move Request

A Move Request is a unit of work to CA-PanAPT. A Move Request specifies or identifies a set of related entities, such as programs, JCL, or documentation, which is moved as a logical unit from one set of libraries to another. The Move Request is a single focal point to track prerequisite approvals and to determine when all requirements have been met.

Setting up a Move Request involves authorized personnel establishing:

- Entities to be moved and their Library Codes
- The date the next and final moves are to take place
- Who must approve the Move Request
- What Verification procedures must be run for the Move Request.

Activities for a Move Request

There are several activities that involve Move Requests. These are:

Adding a Move Request

An authorized CA-PanAPT user adds the initial Move Request, filling in the CA-PanAPT panels with appropriate data. The initial status of a new Move Request is Being Created.

A Move Request can also be added by running the CA-PanAPT Batch Add-Move-Request job. This procedure reads a file containing Move Request descriptions and member data records, creates a Move Request, and adds the Move Request to the Pending File. See the "Batch Interface" chapter in the Adminstrator Guide for proc APJP5960.

Updating a Move Request

The authorized user modifies a current Move Request, reviewing and modifying current data.

Normally, Move Requests are Updated while they are in the Being Created (CRE) status. Only authorized users (through the CHGAWAPP activity record) or the CA-PanAPT System Administrator are able to do an update against a Move Request that is awaiting approval.

If the Move Request is ready to be moved (no approvals or verifications are outstanding), then no one can change the Move Request. Before you change the Move Request data, change the status of the Move Request to Being Created.

Doing a CA-PanAPT Update (CHG function) against a Move Request results in CA-PanAPT revoking all Approvals that have already been granted. In addition, all Verifications are reset.

Closing a Move Request

An authorized user closes the Move Request by using the CA-PanAPT CLOSE function. The Move Request data and contents are now considered to be complete, and the Move Request is now ready to be Approved.

At close time, CA-PanAPT verifies that the requirements, specified (during Library Code Maintenance processing) in the Library Code definitions, are met. If the Library Code requires it, CA-PanAPT verifies that members are properly assigned, that approved Inventory Records exist, and that the members are acceptable to the Member Existence Exit.

Any Verifications required by the Library Code at the starting level must have already been run successfully for the Move Request. If any starting level Verification requirements remain outstanding, the Move Request is not closed. Instead, the Move Request Verification Selection panel displays, allowing you to choose Verifications to be submitted.

Approving a Move Request

Users authorized to perform the necessary approvals use the APP function to log the approvals for each Move Request. If the need should arise, the authorized users can use the APP function to revoke approvals or disapprove a Move Request

Verification of a Move Request

When the Move Request has Verification Procedure requirements, you must run the appropriate procedures to successful completion. The actual verification procedure posts the necessary Verification Category indicating success or failure.

You can initiate Verification Procedure processing for a Move Request from the following panels:

- Move Request Closure panel (through VER/CLO options)
- Move Request Browse panel (through RVP line command)
- Move Request Maintenance panel (through RVP option).

Changing the Move Request Dates

CA-PanAPT provides a separate function for changing the Move Request Next Move Date, Final Move Date, and First Run Date. The DAT function allows the authorized user to update these dates without changing the current status of the Move Request.

Printing a Move Request

The authorized user can request a printout of a single Move Request by using the CA-PanAPT PRT function.

Deleting a Move Request

The authorized user can use the CA-PanAPT DEL function to flag a Move Request as DELETED. The Move Request remains on the Pending File, but is no longer included in pending reports or in other current processes.

Move Requests are physically removed from the Pending File by the batch purge job, APJJ5950. See File Maintenance Jobs in the "Batch Component"chapter for more information on purging Move Requests from the Pending file.

Browsing a List of Move Requests

The Move Request Browse function (BRO) lets you build an online list of Move Requests according to criteria that you specify.

You can browse this list and select a particular Move Request for additional processing by typing the desired CA-PanAPT function on the line showing the desired Move Request.

Monitoring a Move Processing Cycle

Using the Move Request Browse function (BRO) and selecting the status codes for Moves in progress, you can monitor the progress of the current move cycle.

You can browse this list and select a particular Move Request to determine the status of any member that is part of this request.

Copying a Move Request

The Move Request Copy function (COP) creates a new Move Request based on an existing Move Request. You can change the attributes, dates, and member list, as part of the copy process.

As part of final processing, CA-PanAPT attempts to Assign, Retrieve, and Verify the existence of the members as specified in the Library Code definitions.

Copy for Rework

This action lets you copy members for rework from a Move Request that is somewhere in the migration path. You need to select the Move Request or Change Name that has a problem. You are presented with an MSL of members. You can then select the member(s) that need to be changed.

A new Move Request is automatically assigned and the Change Name defaults to REWORK FOR *NNNNNN*. *NNNNNN* is the Move Request that you copied from.

The Rework Move Request number has a STOP LEVEL equal to the Level you copied from. When the Rework Move Request reaches the Stop Level it is marked as done.

Reassign/Release processing works different for a rework Move Request than others. It always attempts to reassign members back to the original Move Request before considering any other Move Requests.

Backing Out a Move Request

The Move Request function Back Out (BAK) prepares an existing Move Request that is in the status MOVE COMPLETE, AWAITING APPROVALS, or APPROVED to Back Out by replacing members from the libraries they were last moved to with the corresponding members from the Backup libraries. Different Backup libraries are used for each Move phase or level (such as quality assurance or production).

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Reassign/Release Processing

Reassign/Release Processing occurs when a member is deleted from a Move Request or the status of a Move Request changes to DELETED or MOVED TO some level (that is, the move is complete). If a member is deleted from a Move Request, only that member is processed. When the status of a Move Request changes, each member in that Move Request goes through this processing.

During Reassign/Release Processing, the Inventory Records for the member in question are examined. If no Inventory Records exist for this member or if the member is not assigned, processing halts. If the member's assigned-to Move Request number is blank or if the member is assigned to the Move Request being processed, processing continues. If the member is assigned to a different Move Request, its assignment is not changed.

CA-PanAPT maintains a cross reference on the database of all Move Requests to which each member is defined. This cross reference is used during Reassign/Release processing to find the Move Request with the earliest scheduled final move date for the members being processed. Move Requests that have been completed (are in a status of MOVED TO some level), and Move Requests that are in a DELETED status or one of the Backout statuses are skipped during this process.

If a member is to be reassigned, CA-PanAPT looks at the Reassign/Transfer flag on the Control File to determine if the assigned-to user should also change. If this flag is set to 2, the member remains assigned to the same user. If the flag is 1, the member is transferred to the owner of the new Move Request. If the member is being reassigned because the Move Request was moved to its final destination (as opposed to being deleted), CA-PanAPT then examines the Move Req Assignment Option on the Control File to determine if concurrent development assistance is enabled (a value of 3 in this field). If it is, CA-PanAPT sets the concurrent development flag for all occurrences of this member in every Move Request except the one from which it is being released. This serves as an indication that other changes might need to be consolidated into the versions being moved. The Move Requests cannot be moved until the concurrent development flag is manually reset.

If no other Move Requests containing the member are found, the Library Code record for the Library Code containing this member is read. If the Auto-Release flag is set to Y, the Inventory Record for this member is released, that is, its assignment flag is set to N, and its assigned-to user and Move Request are blanked out. If the Auto-Release flag in this Library Code is N, the Inventory Record's assigned-to Move Request is blanked, but the assigned-to user is not changed.

If any members are reassigned or released during online processing, messages are written to the ISPF Log that indicate what changes were made. (See the "Control File" chapter for details about the Reassign/Transfer flag; the "Library Codes" chapter for more information about the Auto-Release indicator; and the "Inventory Records" chapter for more information about the assignment fields.)

Note: CA-PanAPT performs no authorization checks during Reassign/Release Processing. If a user who does not have authority to assign or release Inventory Records deletes a member from a Move Request, this member can be reassigned or released despite this user's lack of authority to perform these tasks explicitly.

Reassign/Release processing works differently for a rework Move Request than others. A rework Move Request is one that was created using the Copy for Rework action. CA-PanAPT always attempts to reassign members back to the original Move Request before considering any other Move Requests.

Move Request Maintenance

This subject shows you how to maintain Move Requests. You access a series of panels where you input appropriate information, depending on the activity you want to perform, into the panel fields.

You are guided step by step through these panels by the major functions of each panel, rather than by the panel names themselves. This arrangement helps you to understand the major purpose of each panel.

You start at the CA-PanAPT Main Menu and then move through a series of panels. At any time you can enter the **END** command (PF3) to stop processing on a panel. If you decide to stop processing on a panel, you return to an earlier panel. The documentation guides you as to the panel to which you are returned.

Note: The View Approvals (VA) and the View Verification (VV) commands are valid for all Move Request panels.

Selecting Move Request Activities

Select the Move Request Maintenance Function from the CA-PanAPT Main Menu. Type **MOV** or **M** into the Action field and press ENTER. The Move Request Maintenance panel, APIP100 displays.

Select the Move Request activities you want to perform from this panel.

Panel Field Descriptions

Action

Required. Length: 1-3. Type: alphabetic. Valid values:

ADD (or A)

add a Move Request.

APP (or AP)

Update an Approval category of a Move Request.

BAK (or BO)

Prepare a Move Request for Back Out processing.

BRO (or B)

Create an online summary list of Move Requests.

CHG (or C)

Change (update) a Move Request.

COP

Copy a Move Request.

CLO

Close a Move Request.

CR

Copy a Move Request for rework.

DAT

Change the Move Date of a Move Request.

DEL

Delete a Move Request.

INQ (or I)

Inquire (browse) a Move Request.

PRT (or P)

Print a Move Request by way of a batch job.

RVP

Run Verification Procedures for the current Move Request level

STA

Change the status of a Move Request.

Move Req

Ignored for ADD and BRO; required for all other Actions. Length: 1-16. Type: alphanumeric.

Enter the Move Request number of name to access. If a number is entered it does not have to be left-justified or zero-filled. For example, CA-PanAPT recognizes 18 as 000018. If you cannot remember your Move Request number or name, use the BROWSE function (BRO) to find your Move Request. Then enter your Action from the Browse online list or enter the **END** command (PF3) to return to this panel.

A value entered in this field for the ADD or BRO functions is ignored.

If the Action is COP (Copy a Move Request) or CR (Copy a Move Request for rework), enter the number of the Move Request you want to copy. A number is automatically assigned to the new Move Request you create through copying.

Final Panel Processing

After all necessary fields are filled in, press ENTER to perform the Move Request activity.

Discontinue Processsing

At any time, you can exit this activity by entering the END command (PF3) and return to the CA-PanAPT Main Menu. The action is not processed.

Describing the Move Request

Adding Move Requests, changing them, creating new Move requests by copying, viewing Move Requests by the inquire function, and deleting them are all done through the same sequence of panels. This series of panels lets you enter, modify, or review all Move Request fields.

Notes:

The Delete function displays only the Description of Move Request and Expanded Move Request Description panels. No subsequent panels are displayed. If you press ENTER on the Description of Move Request panel and the Expanded Move Request Description panel, (if applicable), CA-PanAPT deletes the Move Request.

If you do not want to delete the Move Request, press PF3 or type **END** on the Command line and press ENTER.

When a Move Request is deleted, Reassign/Release Processing occurs for each member in the Move Request. For more information, see the topic Reassign/Release Processing earlier in this chapter.

There are two parts to every Move Request. The first part describes the entire Move Request. The second part is the collection of items and the data about each item that is to be moved.

Enter the Move Request action you want on the Move Request Maintenance panel, APIP100, or on the Browse Move Requests List panel, APIP231, and press ENTER. The first Move Request panel, Description of Move Request panel, APIP110, displays.

Panel Field Descriptions

Action

Display only. Displays the action you selected.

Current status

Display only. Displays the current status of the Move Request. If you are Copying or Adding a Move Request, the status is CRE (Being Created). Otherwise, CA-PanAPT displays the status of the Move Request as it exists on the Pending File.

Mov Req

Display only. Displays your Move Request number. The Move Request is identified by the Move Request number. If you are Copying a Move Request or adding a new Move Request, CA-PanAPT generates a new Move Request number and places it in this field. Otherwise, this is the Move Request number you indicated.

Original

Display only. If this Move Request was created by the Copy for Rework action, the original Move Request number you copied from is displayed here. Otherwise, this field is not displayed.

Description

Required. Length: 1-55. Type: alphanumeric.

Use this field to describe a Move Request. This field appears on Move Request reports. CA-PanAPT does no editing on the contents of this field other than to verify that it is not blank and to convert it to upper case.

Service request

Required. Length: 1-16. Type: alphanumeric.

Use this field to enter an internal project identifier, work order, service request, problem reporting, or problem tracking number that is associated with the Move Request. CA-PanAPT does no editing of the contents of the field other than to verify that it is not blank.

Expanded Description

Optional. Valid values: Y (Yes) or N (No):

Y

An expanded description must be entered for this Move Request. You cannot override the default value when it is set to Y. After the Move Request panel has been displayed and processed, the Expanded Description panel is displayed. You must enter at least one line of data into the expanded description.

N

This is the default. An expanded description can be entered for this Move Request. To do this, change this value from an **N** to a **Y**. The Expanded Description panel is displayed after the Move Request panel has been displayed and processed, but you are not required to enter an expanded description. If you leave the value as **N**, you are not presented with the Expanded Description panel.

Change Name

Optional. Length: 1-16. Type: alphanumeric.

Use this field to give your Move Request a unique name you can remember. This name can be entered on the Move Request Maintenance panel instead of a number.

Project

Optional. Length: 1-16. Type: alphanumeric.

If you want to use the Development Facility with this Move Request, you need a Project to assign Development and Work libraries to be used. The name of that Project is specified here. You can also:

- Enter **?** to display a list of Projects defined to CA-PanAPT.
- Create a new Project by specifying a new Project Name in this field.
- Enter an equal sign (**=**) to copy the Service Request value to the Project Name.

Final Move Date

Required. Format: system date.

Enter the date when these modules should be moved to their final destination level (typically production). CA-PanAPT does not accept a date that is prior to the current (system) date. Modules are not moved to their final level until this date is reached and all approvals and verifications for this level are satisfied.

In most cases, when a Move Request completes a move to a level prior to the final move level, the Next Move date field is updated to match the Final Move date. The exception case is when the Next Move date field contains all zeros.

For moves where the final level is the only level, as in a move straight from test to production, this date overlays the Next Move date when you close the Move Request.

While the year is displayed as four digits, you need only enter two digits. CA-PanAPT converts the two-digit year into four-digits, including the century. To enter today's date, simply enter an equal sign (**=**) in the first position of the date.

Next Move date

Optional. Format: system date or all zeros.

Enter the date when these modules should be moved to their next destination level (such as quality assurance). CA-PanAPT does not accept a date that is prior to the current (system) date. Modules are not moved to their next level until this date is reached and all approvals and verifications for this level are satisfied.

If this field is blank or all zeros, the next move is not restricted by date.

In most cases, when a Move Request completes a move to a level prior to the final move level, the Next Move date field is updated to match the Final Move date. The exception case is when the Next Move date field contains all zeros.

For moves where the final level is the only level, as in a move straight from test to production, this date is overlaid by the Final Next Move date when you close the Move Request.

While the year is displayed as four digits, you need only enter two digits. CA-PanAPT converts the two-digit year into four-digits, including the century. To enter today's date, simply enter an equal sign (**=**) in the first position of the date.

First run date

Optional. Format: system date.

Although the year displays as four digits, you can enter a two digit year of the current century into the first two positions of the field. CA-PanAPT converts the two-digit year into four-digits, including the century.

You can leave this field blank. If the First Run Date is the same as the Final Move Date, enter an equal sign (**=**) in the first position of the First Run Date. CA-PanAPT copies the current value of the Final Move Date field into this field. The First Run Date, if entered, cannot be a date earlier than the Final Move Date.

This field is for documentation purposes only. It appears on CA-PanAPT reports. This is intended to be the date that these modules are first run in Production.

***LEVL* move completed**

Display only. CA-PanAPT displays the level names (in place of *LEVL*) and the date that the move took place for the last two moves completed for the Move Request. If no moves have taken place, this area of the panel is blank.

If the completion of a move is indicated by the on-line status change function, the level for that move is shown, but the date is blank. The move might have taken place on a different date than the online status change.

To see the move dates for levels beyond the last two, you must run reports. Most reports that display Move Request information show a complete move date history.

Move type

Required. Length: 1. Valid values: alphanumeric. Default: M.

Enter the value for the Move Processing Cycle when this Move Request be processed. The valid values are defined by your site and are not checked by CA-PanAPT.

A default value of M is presented on the panel. This value provides for compatibility with the earlier versions of CA-PanAPT.

CA-PanAPT has the ability to process multiple Move Processing Cycles simultaneously.

Special handling only

Required. Valid values: Y (Yes) or N (No):

Y

This is a Special Handling Move Request and is meant to document a change to the environment external to CA-PanAPT. No approvals are ever required for a Special Handling request.

N

This is the default. This is a normal Move Request.

This flag indicates whether or not the Move Request is intended to document events without doing any actual moves. Special Handling Move Requests contain only the descriptive part of a standard Move Request. No member names or Library Codes can be specified.

Early Stop Level

Optional. Valid values are short level names that are defined to your CA-PanAPT system, or spaces.

You can prevent a Move Request from moving through all of its destination levels by specifying an Early Stop Level. This is the level at which it ends movement.

All members of this Move Request must use Library Codes that use this level. If any of the Library Codes skip this level then CA-PanAPT prohibits the close.

This is typically used to correct a small portion of a Move Request that has already moved to some level. If, for instance, some changes to an application are not working after it has been move to a quality assurance level, rather than backing out the Move Request and starting all over, you can create another Move Request to handle the failing members. Once you have made the corrections at the test level you can move them up to the quality assurance level in a Move Request that has QA (quality assurance) specified as the Early Stop Level.

Verify for *LEVL*

Display only. This area of the panel shows the Approvals Verifications that are required and that have been satisfied for the Move Request. If the Move Request is in a Being Created status, all that is shown is the Verifications required to close the Move Request. Otherwise, it shows the ones for the current level.

In the Approvals and Verifications Required area, the values can be:

Y

indicating that the approval or verification is required

. (period)

indicating that it is not required.

In the Approvals so far area, the values can be:

Y

indicating that the approval has been granted

D

indicating that the approval has been denied

period (.)

indicating that the approval has neither been granted nor denied yet.

In the Verifications so far area, the values can be:

Y

indicating that the verification has been satisfied

U

indicating that the verification has failed (unverified)

S

indicating that the verification job began but has not finished yet (or was canceled or abended before it finished)

period (.)

indicating that the verification has not been run.

Request added on / / at by

Display only. Not available to Models.

on

the date this Move Request was added. Format: system date.

at

the time this Move Request was added. Format: system time.

by

the TSO userid of the CA-PanAPT user who originally added this Move Request.

Last updated on / / at by

Display only. Not available to Models.

on

the date of the last update of this Move Request. Format: system date.

at

the time of the last update of this Move Request. Format: system time.

by

the TSO userid of the CA-PanAPT user who last updated this Move Request or the last utility that updated this Move Request.

Final Panel Processing

When you have reviewed or modified fields as required, press ENTER.

Discontinuing Processing

If you decide to not continue processing this Move Request, enter the **END** command (PF3) while viewing this panel. You return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel). The action is not taken and the file is not updated.

Copying Move Request Members

If you type the **END** command (PF3), the new Move Request has already been created. After you press ENTER on the Description of Move Request panel, the new Move Request exists on the Pending file and the Member Moves panel displays.

Deleting

If you are in the DEL Action (Deleting) when you press ENTER, the Expanded Move Request Description panel is displayed when an Expanded Description is present for the Move Request. When you press ENTER on the Expanded Move Request Description panel, the Move Request is marked as deleted and you return to the panel from which you came (the Move Request Maintenance panel or the Browse Move Requests List panel).

If an Expanded Description is not present when you press ENTER, the Move Request is marked as deleted and you return to the panel from which you came.

When a Move Request is deleted, Reassign/Release Processing occurs for each member in the Move Request. See the topic Reassign/Release Processing earlier in this chapter.

Special Handling

If this is a Special Handling Move Request, (Y in the Special Handling field) the Expanded Move Re

- The CA-PanAPT System Control File specifies that an Expanded Description is to be created when adding a Move Request, or
- You enter a Y in the Expanded Description field on the Description of Move Request panel.

When you press ENTER, you return to the panel from which you came (the Move Request Maintenance panel or the Browse Move Requests List panel).

Adding

If you are in the ADD Action (Adding), when you press ENTER, the Expanded Move Request Description panel displays if:

- The CA-PanAPT System Control File specifies that an Expanded Description is to be created when adding a Move Request or
- You enter a Y in the Expanded Description field on the Description of Move Request panel.

If an Expanded Move Request Description panel is not to be displayed, when you press ENTER, you see the Member Moves panel, APIP140.

When you press ENTER and the next panel appears, the Move Request has been added. If you press PF3 (END) on any of the rest of the panels, you do not delete the new Move Request.

Updating or Inquiring

If you are Updating (CHG) or Inquiring (INQ) about a Move Request and an Expanded Description is present for the Move Request, when you press ENTER, the Expanded Move Request Description panel displays. Otherwise, the Member Moves panel displays.

If you are Updating a Move Request and you enter a **Y** in the Expanded Description field on the Description of Move Request panel, when you press ENTER, the Expanded Move Request Description panel displays.

Final Panel Processing

When you have reviewed or modified fields as required, press ENTER.

Discontinue Processing

If you decide to not continue processing this Move Request, enter the **END** command (PF3) while viewing this panel. You return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel). The action is not taken and the file is not updated.

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Updating or Inquiring

If you are Updating (CHG) or Inquiring (INQ) about a Move Request and an Expanded Description is present for the Move Request, when you press ENTER, the Expanded Move Request Description panel displays. Otherwise, the Member Moves panel displays.

If you are Updating a Move Request and you enter a **Y** in the Expanded Description field on the Description of Move Request panel, when you press ENTER, the Expanded Move Request Description panel displays.

Entering the Expanded Move Request Description

The Expanded Move Request Description panel, APIP120, displays after the Move Request Description panel is processed. The Expanded Move Request Description panel displays for any of the following reasons:

- If you are adding a Move Request and the default for creating an Expanded Description equals Y
- If you enter Y in the Expanded Description field on the Move Request Description panel while using the COP, ADD, or CHG Move Request options
- If an Expanded Description exists for the Move Request and you have specified the INQ, DEL, or BAK options.

The Expanded Move Request Description panel is used to create the Move Request's expanded description and to enter additional information for the Move Request.

- On a CHG or COP, this panel can be used to change or create an expanded description.
- On an ADD, this panel can be used to create an expanded description.
- On INQ, DEL, and BAK, this panel is display only and cannot be changed.

Panel Field Descriptions

Action

Display only. The action you entered displays.

Current status

Display only. The current status of the Move Request displays.

Move Req

Display only. Your Move Request number displays.

Description

Display only. The Move Request description entered on the Move Request panel displays.

Expanded Description

Required. Length: 1-70. Type: alphanumeric. 12 lines.

Use this area to create or change the expanded description. The edit area into which the expanded description is entered consists of 12 lines of 70 characters per line. Each line is surrounded by parenthesis.

Final Panel Processing

When you have created, reviewed, or modified the expanded description, press ENTER. The Member Moves panel displays. When an expanded description is saved, the expanded description indicator on the Move Request Description panel is set to Y to indicate that an expanded description is present for this Move Request.

If the default for creating an expanded description is set to Y by the CA-PanAPT Control File system information, you are required to create an expanded description. You are returned to the Move Request Maintenance panel and a message displays.

Discontinue Processing

If you decide not to continue processing the expanded description or not to save it, enter the **END** command (PF3). You are returned to the Move Request panel and the expanded description is not added or updated.

If you enter the **END** command (PF3) again, the Move Request is not saved or updated, and processing is discontinued. Otherwise, press ENTER to redisplay the panel and enter the expanded description.

If the default for creating an expanded description is set to N by the CA-PanAPT Control File system information, you can return to the Move Request Description panel without saving the expanded description.

If all Expanded Description lines are deleted, the Expanded Description indicator is set to N.

Entering Member Data for Any Library Codes

The Member Moves panel, APIP140, displays during the ADD, CHG, COP, and INQ functions. Use this panel to enter member data for any Library Codes.

On an ADD, CHG, or COP, this panel displays all of the current members associated with the Move Request you specified on the Move Request Maintenance panel. On an ADD, no members are displayed within the table. To add new member data, you must enter **A** or **ADD** on the Command line to display the Add Member Moves panel for processing. See Entering New Member Data later in this chapter for further details about the Add Member Moves panel.

Existing members are based on your Move Request. You can add, delete, or change members on the panel or you can copy the Move Request unchanged. Use the UP command (PF7) or the DOWN command (PF8) to scroll through the list of members.

You can enforce processing restrictions if you require Inventory processing. If Assignment is enabled, CA-PanAPT requires that each member of the Move Request be properly assigned at the time the Move Request is closed. At Close time, you receive a warning message indicating the number of members that are not properly assigned, the number of associated Inventory Records that are not approved, and the number of members that did not pass the Member Existence Exit criteria. You must correct these conditions before the Move Request can be closed.

You can perform a trial or Verification Close periodically to be sure that you have corrected the error condition.

Panel Field Descriptions

Line Command

A or ADD

Adds a member to the Project. Depending upon the Library Code, Inventory, and Assignment options, the Inventory AUTOADD panel can be displayed and Assignment processing can be performed. Member Restriction Flags are set immediately on the newly added member. To add new member data, you must enter **A** or **ADD** on the Command line to display the Add Member Moves panel for processing. See Entering New Member Data later in this chapter for further details about the Add Member Moves panel.

MSL

Optional. Length: 3. Type: alphanumeric. Valid values: LIB, INV, IA, MR, MS, or blank. Default: blank.

This field requests CA-PanAPT to display a Member Selection List (MSL). The value entered for this field determines which type of MSL to build.

When the MSL is requested, the MSL Selection Criteria panel displays.

LIB

an MSL is to be prepared based on members in a specific library. The Library MSL Selection Criteria panel, APIP699, displays.

INV

an MSL is to be prepared based on information stored in the CA-PanAPT Inventory file. The Inventory Selection Criteria panel, APIP153, displays.

IA

an MSL is to be prepared based on the results of a CA-Pan/LCM Configuration Manager Impact Analysis of the Move Request. This lets you add members to the Move Request that are impacted by other members on your Move Request. The Impact Analysis MSL Options panel, APIP155, displays.

MR

an MSL is to be prepared based on the contents of another Move Request. This can be useful if you are adding members to a Rework Move Request or if you are combining multiple Move Requests into one. The Move Request Member MSL Selection Criteria panel, APIP152, displays.

MS

an MSL is to be prepared from the current contents of the Member Scratchpad created by the Member Browse function of the Development Facility. This can be useful if you are adding members from several different Library Codes that are associated with a particular Project or Move Request. See the "Development Facility" chapter for further details about the Member Browse function and Member Scratchpad. The Member Scratchpad MSL Selection Criteria panel, APIP150Y, displays.

Power Input

Optional. Valid values: Y (Yes) or N (No). Default: N.

Y

When the Add Member Moves panel is entered (using the ADD command), the Power Input mode is active. This option lets you add members to the Project more quickly when using the Add Member Moves panel. When initially active, the default Library Codes from the Control File System record are displayed. You can also activate Power Input mode on the Add Member Moves panel. See Entering New Member Data later in this chapter for further details about the Add Member Moves panel and the Power Input mode.

N

When the Add Member Moves panel is entered (using the ADD command), the Power Input mode is inactive.

Change Defaults

Optional. Valid values: Y (Yes) or N (No). Default: N.

Y

Provides the ability to supply default field values to save you input time. Use them to specify default values that can be copied into the lower panel fields by entering an equal sign (=) into the line item fields.

N

The defaults are not changed.

When you specify Y, the POWER INPUT Options panel, APIP814P, is displayed to provide for the input for the following fields:

Member

Optional. Length: 1-10. Type: alphanumeric.

The value that you place in this field is substituted for each equal sign (=) in the Member columns below. You can enter a complete or partial name. The Default Member value is used only where you enter an equal sign below the Member field.

User-Data

Optional. Length: 1-8. Type: alphanumeric.

The value that you place in this field is substituted for each equal sign (=) in the User-Data columns below. You can enter complete or partial User-data. The default User-Data value is used only where you enter an equal sign below the User-Data field.

In the User-Data columns, characters following the equal sign are appended to the end of the value entered in the Default User-Data field. If you use the equal sign, it must be the first character in the field.

LIB/Subcode

Optional. Length: 1-7. Type: alphanumeric.

The value that you place in this field (all seven characters) is substituted for each equal sign (=) in the Library Code/Subcode column below. The default Library Code/Subcode value is used only where you enter an equal sign below the Library Code/Subcode field.

Sort

Optional. Valid values: Y (Yes) or N (No). Default: N.

Y

The members are sorted by the current ORDER (field name) specifications set by the ORDER action of the Development Facility. See the ORDER action

in the "Development Facility" chapter.

N

This is the default. No sorting is required.

This field allows the members listed on the panel to be re-sorted. This is useful after selecting members from an MSL or after adding members.

Early-Stop Level

Display only. If this Move Request is to stop before what would normally be its final destination level, the level at which it ends is shown here.

Action Commands

Displays only if Power Input=Y. Optional with Power Input=N. For the INQ action, this field displays a line number.

For the ADD, CHG, and COP functions (from Move Request Maintenance), you can use the following Action commands. If this field is left blank, it defaults to CHG on a non-blank line. Valid Action commands are:

IC

Change inventory. Allows existing inventory information to be modified. If the inventory is already flagged as approved, you can try using the IP command to make the change.

IA Add inventory. Allows inventory information to be added for a

member.

IV

View inventory. Allows inventory information to be viewed for a member. IP Approve inventory. Allows inventory information to be approved for a member.

CDS

Set Concurrent Development. Signals that concurrent development is in-progress for the selected member.

CDC

Clear Concurrent Development. Removes the concurrent development state for the selected member.

S

Assign member. Causes assignment processing to be performed on a member. Assignment errors that might occur result in messages being written to the ISPF log. Assignment cannot be entered on rows that are changed.

C

Change member. Accepts new data as entered. When the Library Code/Subcode or To-Member name is changed, then CHG is equivalent to DEL followed by ADD.

DEL

Delete member. Deletes a member from the Project. Depending on your System options and Library Code Inventory options, the deleted member can be Reassigned or Released.

PUR

Purge member. Purges a member from the Project and Development Library.

R

Assign and Retrieve a Member.

TRN

Transfer assignment to yourself. Causes assignment processing (to yourself) to be performed on a member. Assignment errors that might occur result in messages being written to the ISPF log. Assignment cannot be entered on rows that are changed. See Action Command Processing, later in this chapter for more information on using these commands.

Status

Display only. The current status of the members for the Move Request displays. During Move Request Maintenance, the Status field can contain the flags A, I/C, V, and *. These four codes indicate members that have restrictions that prevent closing the Move Request. Status flags set prior to Close are:

A

Member has not been properly Assigned, Move Request cannot be closed or moved.

I

Inventory Record has not been Approved, Move Request cannot be closed.

C

The same member was moved on another Move Request since it was added to this Move Request. Changes made concurrently to the module might need to be merged into this Move Request's copy. The Move Request cannot be closed or moved until the CDC Action command is used to clear the C flag. The C flag masks the I flag, so after clearing the C flag, the I flag might appear if it was set but not visible. The C flag is only set if you indicated in the Control File System Information record that Concurrent Development assistance is enabled.

V

The Member Existence Exit named in the Library Code rejected the member, the Move Request cannot be closed.

*****

The member is currently undergoing development using the CA-PanAPT Development Facility.

In addition, during the Move Processing Cycle, the Status field can contain the flags M, E, S, or W. These four codes allow you to monitor the progress of the Move Request as it is processed. The status flags set during Move Processing are:

M

Move processing has started for the Move Request, but this member has not been moved yet.

E

External processing required for this member.

S

External processing has started for this member.

W

Member has been selected for move processing, but remodeling has not completed.

CA-PanAPT sets the status flags to alert you to resolve these error conditions. These flags are reset at the end of each change session. The status flags, with the exception of the C flag, are also reset at Move Closure.

Prior to formal Closure, you can do a Trial or Verification Close from the Move Request Closure panel, APIP190. This process checks each member and sets the member and Move Request flags according to the conditions present at that time.

This process allows the owner to confirm the status of each member in preparation for formal Closure. You can periodically monitor and address any outstanding problems.

Action Command Processing

When Power Input is not enabled, you can perform the following types of Action command processing:

- Change a line by typing over the member names, User-data, or Library Code. You can type C in the Act Cmd column, but this is not required.
- Delete a line by typing DEL in the Act Cmd column. When you enter DEL or C, the member being deleted from the Move Request goes through Reassign/Release Processing. For further information, see Reassign/Release Processing earlier in this chapter.
- Assign a member's Inventory Record to yourself by typing S in the Act Cmd column. If the member is already assigned to a user, but not to a Move Request, the Assigned-To Move Request is filled in with the number of the Move Request you are updating. You must not change any information when you are assigning the member.
- Inventory maintenance lets you change (IC), add (IA), view (IV), or approve (IP) an Inventory Record for a member by typing the desired command in the Act Cmd column next to the member.
- Clear a member's Concurrent Development flag by typing CDC in the Act Cmd column. If the member has unapproved inventory, the C flag is replaced with the I flag; otherwise it is blank. You must not change any information when you do this.
- Set a member's Concurrent Development flag by typing CDS in the Act Cmd column. You should not normally do this, CA-PanAPT sets the C flag automatically. This Action command is provided so that you can undo an erroneous CDC action command. You must not change any information when you do this.
- Purge a member by typing PUR in the Act Cmd column. Purge is the same as delete except that it also removes the member from the starting level library. Purge is only valid for Move Requests in Being Created status. Furthermore, not all Library Codes honor purge; they require Member Existence exits that are capable of actually deleting members. The PDS member existence exit APAS0200 honors purge. Like delete, when you purge a member, it goes through Reassign/Release processing.

If you use action commands DEL or PUR to delete a member name from a Move Request, the member's assignment is affected:

- If the member name/Library Code is not found on any other Move Request, the member's assignment is released and the assigned-to Move Request number is set to blanks.
- If the member name/Library Code is present in other Move Requests, the member's assigned-to Move Request number is set to the Move Request that contains the member and has the earliest scheduled move date.

If you use action command C to change a member name or its Library Code, the member's assignment is affected:

- If the member name or Library Code changes, the old member's assign\-ment release is based on the same conditions listed for the action command DEL in the previous paragraph.
- The new member name/Library Code causes the new member's assigned-to Move Request number to be set to the Move Request to which the member was just added, depending on how auto-assignment is set in the Library Code for the new member.

If you use a non-blank line for a Delete, the line you use is deleted if you do not change the To Member Name or the Library Code. If you change either or both of these fields, the member to which you change them is deleted, and the original member is not affected.

If you try to assign this member to yourself, assignment takes place as described in the "Inventory Records" chapter. If you try to assign and retrieve a member, assignment and retrieve takes place as described in the "Inventory Records" chapter.

If you are changing a Move Request that has been added to the Pending file through the Batch Add Interface, each member in that Move Request is processed as though the action command C was entered on each Line command. Processing continues until all members of this Move Request have been successfully verified.

Use the **UP** (PF7) and **DOWN** (PF8) commands to scroll the display.

From Starting Level

There are ten rows available on this panel for the entry of Member and User-Data. You can enter Member and User-Data on one or more of the rows. A blank field in this column indicates that no User-data is needed for this member. You can enter an equal sign (=) in the first position of any field in this column and it is replaced with the Default Member, User-data or Library Code/Subcode specified at the top of the panel. If you use the equal sign, you must specify a Default Member, User-data, or Library Code/Subcode value above. If you do not, CA-PanAPT gives you an error message. CA-PanAPT appends characters that appear after the equal sign to the end of the Default value to create the new value. CA-PanAPT does field edits on the new value after substituting the default value.

Member

Required. Length: 1-10. Type: alphanumeric.

Enter the member name of the member on the Starting Level Library you want to move. The Library Code typed in the same row dictates the allowed length and characteristics of member names.

User-Data

Required, optional, or invalid depending on the Library Code Specifications.

Length: 0-8. Type: alphanumeric.Enter any User-data for the member on the Starting Level Library you want to move. User-data can be any additional information about the member. The Library Code entered on the same line dictates the allowed length and characteristics of User-data.

To Destination Levels

There are ten rows available on the panel for the entry of Member and User-data.

You can enter Member and User-data on one or more of the rows. You can enter an equal sign (=) in the first position of any field in this column. It is replaced with the Default value specified at the top of the panel. If you use the equal sign, you must specify a Default Member or User-data value above.

If you do not specify Default Member or User-data, CA-PanAPT displays an error message. CA-PanAPT appends characters that appear after the equal sign to the end of the Default Member or User-data value to create the new value. CA-PanAPT edits fields on the new value after substituting the default value.

If you enter a greater-than sign (>) in the first position, the From Starting Level Member or User-data field is copied to this field. CA-PanAPT appends characters that appear after the greater-than sign to the end of the copied value to create the new value.

Member

Required. Length: 1-10. Type: alphanumeric. Default: from test member.

Enter the member name for all levels beyond the starting test level. The Library Code typed on the same line dictates the allowed length and characteristics of member names. If you leave this field blank or precede it with an equal sign, the From Member name is used as the default name. Any characters you type following the equal sign are appended to the From Member name to create the To Member name.

User-data

Required, optional, or invalid depending on the Library Code Specifications.

Length: 0-8. Type: alphanumeric. Enter the User-data for the member for all levels beyond the starting test level. User-data can be any additional information about the member. The Library Code typed on the same line dictates the allowed length and characteristics of User-data.

Library CODE / SUB

Required. Length: 1-7. Type: alphanumeric and national characters.

This column displays all of the Library Code/Subcodes associated with the members listed on the Move Request that you selected on the Move Request Maintenance panel. You can leave the displayed Library Code/Subcodes or change them.

Note: If you leave the Library Code/Subcode blank, CA-PanAPT copies it from the immediately preceding line. If the immediately preceding Library Code is blank, CA-PanAPT displays an error message indicating that a Library Code is required.

Final Panel Processing

Enter data as required on this panel and press ENTER. Every time you press ENTER, after validation, CA-PanAPT updates the Move Request with the data on the panel.

If you requested a Member Selection List (MSL), you are presented with the MSL Selection Criteria panel.

Cop Function

Enter data as required on this panel and press ENTER. Every time you press ENTER, after validation, CA-PanAPT updates the Move Request with the data on the panel and then re-displays the panel.

CHG or INQ Functions

If you are using CHG or INQ and have completed processing on this panel, use the END command (PF3) to exit after you have pressed ENTER. Use the UP (PF7) and DOWN (PF8) commands to scroll up and down for CHG and INQ.

For ADD, CHG, and COP Functions

When you press ENTER, CA-PanAPT enters data from the panel into the Move Request.

If Inventory processing is enabled for a member (according to the Library Code), and you have completed panel edits, CA-PanAPT performs Inventory processing for members that are added to the Move Request. Depending on the Library Code definition that you set up, this might include creating Inventory Records, Automatic Assignment, Automatic Retrieve, and setting the Inventory Records Approved flag. If the Library Code requires Approved Inventory Records, the associated Inventory Record is checked and the Member and Move Request flags are updated.

If Assignment is enabled, CA-PanAPT does not allow you to close a Move Request containing members that are not properly assigned. If you include members that are not properly assigned, CA-PanAPT flags these members and requires that you assign them properly when you close the Move Request. If Auto Assignment is enabled and a member is unassigned, CA-PanAPT assigns it to your user ID. If Auto Assignment is not enabled and a member is unassigned, CA-PanAPT leaves it unassigned and sets the assignment restriction flag.

If the Library Code definition specifies a Member Existence Exit, CA-PanAPT calls the exit. If the member does not pass the criteria of the exit, CA-PanAPT sets a restriction flag for the member.

Discontinue Processing

If you decide to discontinue processing this Move Request, press PF3 or type END on the Command line when you have finished with this Move Request.

You return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel) and the file is not updated with the changed data from this panel. However, the Move Request exists (has been created for ADD or COP Actions) and contains all data from previous panels.

Entering New Member Data

From the Member Moves panel, enter **ADD** or **A** on the Command line to display the Add Member Moves panel, APIP140Q. Use this panel to enter member data for any Library Codes.

This panel provides input fields to add new members. Upon ENTER, each row is processed in-turn. The new member names, user data, and Library Code values are processed for each line and added to the Move Request. If the new member is already assigned to the user, but not assigned to the Move Request, the Assigned-To Move Request is filled in with the number of the Move Request you are updating. If the row was successfully added to the Move Request, the row fields are blanks when the panel is redisplayed for further input. If a row is unsuccessfully added, the fields are not blanked, and a diagnostic message is displayed below the row.

Panel Field Descriptions

Power Input

Optional. Valid values: Y (Yes) or N (No). Default: N.

Y

When the Add Member Moves panel is entered (using the ADD command), the Power Input mode is active. This option lets you add members to the Project more quickly when using the Add Member Moves panel. When initially active, the default Library Codes from the Control File System record are displayed. You can also activate Power Input mode on the Add Member Moves panel. See Entering New Member Data later in this chapter for further details about the Add Member Moves panel and the Power Input mode.

N

When the Add Member Moves panel is entered (using the ADD command), the Power Input mode is inactive.

Change Defaults

Optional. Valid values: Y (Yes) or N (No). Default: N.

Y

Provides the ability to supply default field values to save you input time. Use them to specify default values that can be copied into the lower panel fields by entering an equal sign (=) into the line item fields.

N

The defaults are not changed.

When you specify Y, the POWER INPUT Options panel, APIP814P, is displayed to provide for the input for the following fields:

Member

Optional. Length: 1-10. Type: alphanumeric.

The value that you place in this field is substituted for each equal sign (=) in the Member columns below. You can enter a complete or partial name. The Default Member value is used only where you enter an equal sign below the Member field.

User-Data

Optional. Length: 1-8. Type: alphanumeric.

The value that you place in this field is substituted for each equal sign (=) in the User-Data columns below. You can enter complete or partial User-data. The default User-Data value is used only where you enter an equal sign below the User-Data field.

In the User-Data columns, characters following the equal sign are appended to the end of the value entered in the Default User-Data field. If you use the equal sign, it must be the first character in the field.

LIB/Subcode

Optional. Length: 1-7. Type: alphanumeric.

The value that you place in this field (all seven characters) is substituted for each equal sign (=) in the Library Code/Subcode column below. The default Library Code/Subcode value is used only where you enter an equal sign below the Library Code/Subcode field.

Status

Display only. The current status of the members for the Move Request displays. During Move Request Maintenance, the Status field can contain the flags A, I/C, V, and *. These four codes indicate members that have restrictions that prevent closing the Move Request. Status flags set prior to Close are:

A

Member has not been properly Assigned, Move Request cannot be closed or moved.

I

Inventory Record has not been Approved, Move Request cannot be closed.

C

The same member was moved on another Move Request since it was added to this Move Request. Changes made concurrently to the module might need to be merged into this Move Request's copy. The Move Request cannot be closed or moved until the CDC Action command is used to clear the C flag. The C flag masks the I flag, so after clearing the C flag, the I flag might appear if it was set but not visible. The C flag is only set if you indicated in the Control File System Information record that Concurrent Development

assistance is enabled.

V

The Member Existence Exit named in the Library Code rejected the member, the Move Request cannot be closed.

*****

The member is currently undergoing development using the CA-PanAPT Development Facility.

In addition, during the Move Processing Cycle, the Status field can contain the flags M, E, S, or W. These four codes allow you to monitor the progress of the Move Request as it is processed. The status flags set during Move Processing are:

M

Move processing has started for the Move Request, but this member has not been moved yet.

E

External processing required for this member.

S

External processing has started for this member.

W

Member has been selected for move processing, but remodeling has not completed.

CA-PanAPT sets the status flags to alert you to resolve these error conditions. These flags are reset at the end of each change session. The status flags, with the exception of the C flag, are also reset at Move Closure.

Prior to formal Closure, you can do a Trial or Verification Close from the Move Request Closure panel, APIP190. This process checks each member and sets the member and Move Request flags according to the conditions present at that time.

This process allows the owner to confirm the status of each member in preparation for formal Closure. You can periodically monitor and address any outstanding problems.

From Starting Level

There are ten rows available on this panel for the entry of Member and User-Data. You can enter Member and User-Data on one or more of the rows. A blank field in this column indicates that no User-data is needed for this member. You can enter an equal sign (=) in the first position of any field in this column and it is replaced with the Default Member, User-data or Library Code/Subcode specified at the top of the panel. If you use the equal sign, you must specify a Default Member, User-data, or Library Code/Subcode value above. If you do not, CA-PanAPT gives you an error message. CA-PanAPT appends characters that appear after the equal sign to the end of the Default value to create the new value. CA-PanAPT does field edits on the new value after substituting the default value.

Member

Required. Length: 1-10. Type: alphanumeric.

Enter the member name of the member on the Starting Level Library you want to move. The Library Code typed in the same row dictates the allowed length and characteristics of member names.

User-Data

Required, optional, or invalid depending on the Library Code Specifications.

Length: 0-8. Type: alphanumeric.Enter any User-data for the member on the Starting Level Library you want to move. User-data can be any additional information about the member. The Library Code entered on the same line dictates the allowed length and characteristics of User-data.

To Destination Levels

There are ten rows available on the panel for the entry of Member and User-data.

You can enter Member and User-data on one or more of the rows. You can enter an equal sign (=) in the first position of any field in this column. It is replaced with the Default value specified at the top of the panel. If you use the equal sign, you must specify a Default Member or User-data value above.

If you do not specify Default Member or User-data, CA-PanAPT displays an error message. CA-PanAPT appends characters that appear after the equal sign to the end of the Default Member or User-data value to create the new value. CA-PanAPT edits fields on the new value after substituting the default value.

If you enter a greater-than sign (>) in the first position, the From Starting Level Member or User-data field is copied to this field. CA-PanAPT appends characters that appear after the greater-than sign to the end of the copied value to create the new value.

Member

Required. Length: 1-10. Type: alphanumeric. Default: from test member.

Enter the member name for all levels beyond the starting test level. The Library Code typed on the same line dictates the allowed length and characteristics of member names. If you leave this field blank or precede it with an equal sign, the From Member name is used as the default name. Any characters you type following the equal sign are appended to the From Member name to create the To Member name.

User-data

Required, optional, or invalid depending on the Library Code Specifications.

Length: 0-8. Type: alphanumeric. Enter the User-data for the member for all levels beyond the starting test level. User-data can be any additional information about the member. The Library Code typed on the same line dictates the allowed length and characteristics of User-data.

Library CODE / SUB

Required. Length: 1-7. Type: alphanumeric and national characters.

This column displays all of the Library Code/Subcodes associated with the members listed on the Move Request that you selected on the Move Request Maintenance panel. You can leave the displayed Library Code/Subcodes or change them.

Note: If you leave the Library Code/Subcode blank, CA-PanAPT copies it from the immediately preceding line. If the immediately preceding Library Code is blank, CA-PanAPT displays an error message indicating that a Library Code is required.

Final Panel Processing

Enter data as required on this panel and press ENTER. Upon ENTER, each row is processed in-turn. The new member names, user data, and Library Code values are processed for each line and added to the Move Request. If the new member is already assigned to the user, but not assigned to the Move Request, the Assigned-To Move Request is filled in with the number of the Move Request you are updating. If the row was successfully added to the Move Request, the row fields are blanks when the panel is redisplayed for further input. If a row is unsuccessfully added, the fields are not blanked, and a diagnostic message is displayed below the row. Unless END (PF3) is pressed, the Add Member Moves panel is redisplayed for further input.

Discontinue Processing

If you decide to discontinue processing this Move Request, press PF3 or type END on the Command line when you have finished new member data entry for this Move Request. You return to the Member Moves panel. You notice that all successfully added members (processed on the Add Member Moves panel) have now been added to the table display of the Member Moves panel.

Library MSL Selection Criteria Panel

The Library MSL Selection Criteria panel, APIP699, is used to specify the MSL selection criteria.

Panel Field Descriptions

Libcode/Subcode

Required. Length: 1-7. Type: alphanumeric.

This field tells CA-PanAPT the Libcode from which the data set name is extracted. CA-PanAPT uses the LIBC file and LEVEL field to determine the data set name to list on the MSL. If you cannot remember the name of the Library code, enter the LC Line Command and press ENTER. You are presented a list of your Library Codes. If you select a Library Code from this list, CA-PanAPT enters it for you in this field.

Members starting with

Optional. Length: 0-10. Type: alphanumeric.

This field is used to further limit the MSL. Only members whose names begin with the characters specified in this field are included in the MSL.

Library Level

Required. Length: 4. Type: alphabetic.

Blanks (for a Library Level Selection List) or enter valid short level names that are defined to your CA-PanAPT system and to the specified Library Code. Indicates which level of the Library Code to use for producing the MSL. The Library Code file is checked and the data set name is extracted. The MSL is based on the members in the data set. Blanks cause a Level Selection List to be prepared. This is a list of LEVELs and corresponding data set names at which the member physically resides. You can then choose from this list to select the Library Level value. See Library Level Selection List Panel discussed next for further details.

Final Panel Processing

Complete all required fields and any optional ones to limit the Member Selection List, then press ENTER. CA-PanAPT displays the MSL List.

A message displays if no members are found that match the selection criteria.

You can enter new selection criteria to be processed, or discontinue processing.

Discontinue Processing

Press PF3 or type END on the Command line to return to the Member Moves panel.

Library Level Selection List Panel

From the Library MSL Selection Criteria panel, enter blanks in the Library Level field and press ENTER to display the Library Level Selection List panel.

This selection list is prepared from scanning all associated library level data sets. If the data set exists and the level is active, an entry is made in the table that designates the Library Level and data set name. Thus, you can now select an available level.

Panel Field Descriptions

Act

S Enter S in Act to select the LEVEL. Enter S on a single level entry to proceed with the Library Level MSL processing.

Final Panel Processing

When the selected Library Code Level is successfully processed, the Member Selection List panel displays for further processing (see Member Selection List Panel later in this chapter for further information).

Discontinue Processing

Enter the **END** command (PF3) to return to the Library MSL Selection Criteria panel.

Inventory Selection Criteria Panel

The Inventory Selection Criteria panel, APIP153, displays when MSL type INV is selected on the Member Moves panel, APIP140.

Panel Field Descriptions

Library Code

Optional. Length: 1-7. Type: alphanumeric.

Enter a Library Code to limit the scope of the MSL. The MSL is restricted to members in that Library Code. The inventory qualifier from this Library Code is used when searching the Inventory file. If this field is blank, members in all Library Codes can be chosen for the MSL.

If you cannot remember the name of the Library Code, enter the LC Line Command and press ENTER. You are presented a list of your Library Codes. If you select a Library Code from this list, CA-PanAPT enters it for you in this field.

Members starting with

Optional. Length: 0-10. Type: alphanumeric.

This field restricts the MSL to members starting with the characters entered here. By leaving this field blank, members with name Libcode are eligible for the MSL.

Assigned

Optional. Valid values: Y (Yes), N (No), or blank. Default: blank.

A Y in this field indicates that only assigned members are displayed. Enter an N if you only want to see unassigned members. If this field is blank, assignment is not considered when building the MSL.

Assigned to user

Optional. Length: 1-8. Type: alphanumeric. Default: blank.

This restricts the MSL to members assigned to the specified user.

Assigned to MR

Optional. Length: 1-6. Type: numeric. Default: blank.

This restricts the MSL to members assigned to the specified Move Request.

Approved

Optional. Valid values: Y (Yes), N (No), or blank. Default: blank.

Enter a Y in this field for an MSL that contains only members with approved Inventory records. Enter an N in this field for an MSL that contains only members with Unapproved Inventory records. Blank specifies that the Approved flag is not considered when building the MSL.

Owner

Optional. Length: 1-8. Type: alphanumeric. Default: blank.

This restricts the MSL to Inventory members with the specified value in the Owner field.

Environment

Optional. Length: 1-8. Type: alphanumeric. Default: blank.

This restricts the MSL to Inventory members with the specified value in the Environment field.

Application

Optional. Length: 1-8. Type: alphanumeric. Default: blank.

This restricts the MSL to Inventory members with the specified value in the Application field.

Language

Optional. Length: 1-8. Type: alphanumeric. Default: blank.

This restricts the MSL to Inventory members with the specified value in the Language field.

Last moved by MR

Optional. Length: 1-6. Type: numeric. Default: blank.

This field restricts the MSL to members last moved by the specified Move Request.

Final Panel Processing

Fill in the fields to which you want to limit the Member Selection List, then press ENTER. The MSL is built and displays. In the event that no members are found to meet the selection criteria, a message indicating such is displayed. You can then change the selection criteria or discontinue processing.

Discontinue Processing

If you do not want to continue with the MSL, enter the END command or press PF3. You return to the Member Moves panel.

Impact Analysis MSL Options Panel

The Impact Analysis MSL Options panel, APIP155, displays when the MSL type IA is selected on the Member Moves panel, APIP140.

Panel Field Descriptions

Option members for additional impacting members

Optional. Length: 1-8. Type: alphanumeric.

If you want the input to the Impact Analysis to be supplemented with members that are not defined to your Move Request, specify each member name in a Configuration Manager Option member. Enter the name of that option member in this field. This name is retained with the Move Request, and it reappears on this panel if you request another IA MSL for the same Move Request. This name is also used during the Impact Analysis Verification Procedure.

Edit this member using the ISPF editor by entering EDIT on the Command line, placing the cursor on this field (which should have the member name entered already), and pressing ENTER. The data set this member resides on was specified by an administrator during the Configuration Manager setup, and it is stored on the Control File.

While any Configuration Manager option statements can be specified in this member, the only proper ones to specify are "-s:" option statements. The syntax is "-s:" followed by the member name, a period, and the Library Code and subcode names (separated by a / if the subcode is non-blank). There should be no embedded spaces.

For example, to supplement the input with member MAIN of Library Code SRC, and member COMMON of Library Code SRC/CPY, use the following statements:

```
-s:MAIN.SRC
```

```
-s:COMMON.SRC/CPY
```

Regular expressions (wildcards) can be used in these names. See the CA-Pan/LCM Configuration Manager User Guide for information about the syntax for regular expressions.

Option members for restricting impacted members

Optional. Length: 1-8. Type: alphanumeric.

If you want the output to the Impact Analysis to be restricted to certain members based on their names or Library Codes, you can specify the restricting member names and Library Codes in a Configuration Manager Option member. Enter the name of the option member in this field. This name is retained with the Move Request, and it reappears on this panel if you request another IA MSL for the same Move Request. This name is also used during the Impact Analysis Verification Procedure.

Edit this member using the ISPF editor by entering EDIT on the Command line, placing the cursor on this field (which should have the member name entered already), and pressing ENTER. The data set this member resides on was specified by an administrator during the Configuration Manager setup, and it is stored on the Control File.

While any Configuration Manager option statements can be specified in this member, the only proper ones to specify are “-a:” option statements. The syntax is “-a:” followed by the member name, a period, and the Library Code and subcode names (separated by a / if the subcode is non-blank). There should be no embedded spaces. Regular expressions (wildcards) can be used in these names. In fact, if you wish to restrict by Library Code name you must use regular expressions. See the CA-Pan/LCM Configuration Manager User Guide for information about the syntax for regular expressions.

For example, to restrict the output to only OBJECT and LOAD modules, specify Library Codes that are for these types of members. If you use Library subcodes OBJ and EXE for these types, use the following statements:

```
-a:*.*/OBJ
```

```
-a:*.*/EXE
```

Show Impact Analysis messages

Required. Valid values: Y (Yes) or N (No).

When specified as Y, messages from the CA-Pan/LCM Configuration Manager program AMKLIST are displayed on your TSO terminal. Normally this is undesirable because it breaks out of ISPF full panel mode and does not show anything useful. However, if there is some type of error, you need to change this field to Y to be able to see what it is.

Final Panel Processing

If you entered the EDIT command, CA-PanAPT invokes the ISPF editor for the member the cursor is positioned on. After you end the edit, CA-PanAPT redisplays the Impact Analysis MSL Options panel. Otherwise, when you press ENTER, CA-PanAPT invokes the CA-Pan/LCM Configuration Manager AMKLIST program. When AMKLIST is finished, CA-PanAPT displays the MSL List.

The MSL List contains every member that is impacted by the members of your Move Request that are not themselves on the Move Request.

If there are no impacted members, CA-PanAPT returns to the Member Moves panel with a message indicating this.

Discontinue Processing

Press PF3 or type END on the Command line to return to the Member Moves panel.

Move Request Member MSL Selection Criteria Panel

The Move Request Member MSL Selection Criteria panel, APIP152, displays when the MSL type MR is selected on the Member Moves panel, APIP140.

Panel Field Descriptions

Move Request

Display only for Rework Move Requests. Required for all others. Length: 1-16. Type: alphanumeric.

Enter the Move Request number or Change Name of the Move Request from which you want to list members.

For a Rework Move Request this field is display only, and it shows the Move Request number that is being reworked. You cannot select a different Move Request.

Library Code

Required. Length: 1-7. Type: alphanumeric.

Enter a Library Code to limit the scope of the MSL. The * and ? wildcard characters can be used. To select members for all Library Codes, enter an * for the Libcode and an * for the Subcode. If you cannot remember the name of the Library Code, enter the LC Line Command and press ENTER. You are presented a list of your Library Codes. If you select a Library Code from this list, CA-PanAPT enters it for you in this field.

Member name pattern

Required. Length: 1-10. Type: alphanumeric.

Only members whose TO NAME (as opposed to FROM NAME) matches this value are listed on the MSL. The * and ? wildcard characters can be used. To select all members enter an *.

Retain From name

Required. Length: 1. Valid values: Y (Yes) or N (No).

Enter Y to add the members to the Move Request with the same From name, From data, and To data values from the Move Request from which they are being selected.

Enter N to add the members to the Move Request with the From name matching the To name and with blank From and To data values.

Final Panel Processing

Complete all fields and press ENTER. CA-PanAPT displays the MSL.

A message displays if no members are found that match the selection criteria. You can enter new selection criteria or discontinue processing.

Discontinue Processing

If you do not want to generate the MSL, enter the END command (PF3). You then return to the Member Moves panel.

Member Scratchpad MSL Selection Criteria Panel

From the Member Moves panel, enter **MS** in the MSL field and press ENTER to display the Member Scratchpad MSL Selection Criteria panel.

This selection list is prepared from the current contents of the Member Scratchpad created by the Member Browse function of the Development Facility. This can be useful if you are adding members from several different Library Codes that are associated with a particular Project or Move Request. See the "Development Facility" chapter for further details about the Member Browse function and Member Scratchpad.

Panel Field Descriptions

Line Command

A

Select ALL. Selects the entire table (with the exception of those rows marked with the X Action) and transfers the entry to the Move Request.

S

Select. Selects only those rows marked with the S Action and transfers those rows to the Move Request.

Action Commands

S

Select Row. Enter S in the Act field on a single row to transfer the Member, User-Data, Library Code, and Level information to the Move Request.

X

Exclude Row. Enter X in the Act field on a single row to prevent the A command (Select ALL) from using this row for processing.

B

Browse Member. Enter B in the Act field to Browse the associated member.

Final Panel Processing

When the S (Select) or A (ALL) Command is successfully completed, the Member Moves panel displays with all the selected members entered in the table display (Move Request).

Discontinue Processing

Enter the END command (PF3) to return to the Member Moves panel. No selected member be transferred to the table display (Move Request).

Member Selection List Panel

The Member Selection List (MSL) panel, APIP150, displays after a LIB, INV, or IA MSL has been built.

Panel Field Descriptions

Line Command

Required. Length: 1-3. Type: alphabetic. Valid values: S, A, or END. Default: blank.

Selects which members of the MSL to add to the Move request.

S

Add only members selected using the S select character to the Move Request.

A

Add all members listed on the MSL to the Move Request, except members specifically excluded using the X select character.

END

Discontinue processing and return to the Member Moves panel.

select field

This unlabeled field is the first entry field on each member line.

Optional. Length: 1. Type: alphabetic. Valid values: S, X, or blank. Default: blank. This field selects which members of the MSL are added to the Move Request.

S

Add this member to the Move Request when the A or S command is entered. Use S to add only a few of the listed members to the Move Request.

X

DO NOT add this member to the Move Request when the A or S command is entered. Use X when you want to add the majority of the listed members to the Move Request; use X to exclude the unwanted members.

Member Data

As many rows are displayed as fit on the panel. If the list contains more members, they can be scrolled using standard ISPF scrolling commands. The data displayed has been returned from the MSL exit program specified for this Library Code.

Note: The MSL Processing program does not validate any of these fields to ensure that they meet the specifications for the Library Code. Validation is performed upon return to the Member Moves panel. You can, however, update the fields on this panel before returning to the Member Moves panel.

From data Member Name

Required. Length: 1-10. Type: alphanumeric.

The member name returned from the MSL exit program. For a LIB MSL, this is the name as it appears in the processed data set. For an INV MSL, this is the name in the CA-PanAPT Inventory File. For an IA MSL, this is the name as it appears in your CA-Pan/LCM Configuration Manager dependency file. If necessary, you can modify this field.

From data User-data

Optional. Length: 0-8. Type: alphanumeric.

If the MSL exit program returns User-data, it is displayed here. Otherwise, it is left blank and can be modified if necessary. User-data can be any additional information about the member.

To data Member Name

Optional. Length: 1-10. Type: alphanumeric.

If a To data Member Name is returned by the MSL exit program, it is displayed here. If a To data Member Name is not returned by the exit, this field has the same value as the From data Member Name. If necessary, you can modify the value of this field. However, the new value cannot be the same as another To data Member Name on this list. This field must have a unique value.

To data User-data

Optional. Length: 0-8. Type: alphanumeric.

If the MSL exit program returns User-data, it displays here. Otherwise it is left blank and can be modified if necessary. User-data can be any additional information about the member.

Library Code/Subcode

Optional. Length: 1-7. Type: alphanumeric.

This column displays all of the Library Code/Subcodes associated with the members listed. If a Libcode/Subcode was not returned by the exit program, the one entered on the Selection Criteria panel is used. You can leave the displayed Library Code/Subcodes or change them.

Final Panel Processing

Standard ISPF scrolling commands are used to scroll through the MSL. There are various ways to process the MSL after it is displayed:

- If you want all listed members added to the Move Request, enter the A command. You do not need to select individual members when all are to be processed. When the A command is typed, CA-PanAPT adds all members except the excluded ones to the Move Request.
- If only a small portion of the listed members are to be added to the Move Request, enter S to select the desired members and enter the S command to process the list.
- If the majority of the members are to be added with only a few exceptions, enter an X to exclude members and enter the A command to start processing the list.

Discontinue Processing

If you decide not to add the members to the Move Request, you must type the END command on the Command line or press PF3. This cancels the processing of the MSL.

All of the commands return you to the Member Moves panel, APIP140.

Closing a Move Request

Move Requests must be closed using the Move Request Closure panel APIP190 before they can be approved and actually processed.

- A Move Request cannot be closed if any of its members have any restriction flags set. Restrictions might indicate that the member is not properly Assigned, does not have an Approved Inventory Record, or did not pass the Member Existence Exit.
- A Move Request that has been added through the Batch Add Interface cannot be closed if it has not been successfully verified through one complete change process.
- A Move Request which has Starting Level Verification Procedure requirements cannot be closed until the Verifications have run successfully.

Approving the Inventory Record does not automatically reset the restriction flag on the member in any Move Requests. CA-PanAPT provides a mechanism (Verification) to reset the flags to determine whether there are outstanding requirements preventing Closure. The Verification option (VER) appears on the Move Request Closure panel. This panel is used both to Close and to Verify a Move Request. The restriction flags are reset at Verification (trial) and Close time.

Move Request Closure Panel

Use the Move Request Closure panel to close Move Requests. Closing a Move Request indicates that it is ready for necessary Approvals and processing.

To access the Move Request Closure function from the Move Request Maintenance panel, type **CLO** in the Action field, enter the number of your Move Request in the Move Request field, and press ENTER. The Move Request Closure panel, APIP190, displays. (You can also type **CLO** in the Action field of the Browse Move Requests List panel.)

Panel Field Descriptions

Action

Display only. The selected action BAK entered earlier displays.

Current Status

Display only. The current status of the Move Request displays.

Move Req

Display only. Your Move Request number displays.

Description

Display only. The description of the Move Request displays.

Next Move Date

Display only. Format: system date.

This is the date that the move to the next level is to take place. Note that if this Move Request only moves one level (such as Test to Quality Assurance without moving any further) the Final Move date overlay this date when the close completes.

Final Move Date

Display only. Format: system date.

This is the date that the move to the final level is to take place.

Move Type

Display only. The Move Processing Cycle when CA-PanAPT move this Move Request. The meaning of this value is controlled by your site.

Number of modules

Display only. The total number of entities in this Move Request.

Special Handling Move Requests can be closed with zero modules. To close a normal Move Request, at least one entity must be defined in it.

Early stop level

Display only. If an Early stop level was defined for this Move Request it is displayed here, otherwise this field is blank. An Early stop level is a way to cause a Move Request to end short of what is normally its final destination.

Entire function desired

Required. Length: 3. Type: alphanumeric. Valid values: CLO or C, VER or V, or END or E. No default.

CLO or C

Close the Move Request. CA-PanAPT changes the request's status, resets restriction flags, and prohibits any further alteration of the request's description or module names.

VER or V

Verify the Move Request before Closing it. CA-PanAPT verifies each member in the Move Request and resets the restriction flags, but does not close the Move Request.

END or E

Return to the original panel without changing the Move Request's status.

Verifying a Move Request

You cannot close a Move Request that has Close restrictions or outstanding Verification Procedure Requirements. You can ensure that the Move Request can be closed by Verifying it prior to trying to close it. On the Move Request Closure panel, type **VER** in the Enter Function Desired field to Verify the request and press ENTER.

If there are no Close restrictions, and no outstanding Verification Procedures, a message is displayed indicating that. If a close is performed, it be successful.

If there are outstanding Verification Requirements, CA-PanAPT displays the Move Request Verification panel. This lets you run any outstanding procedures.

Correcting Close Restrictions

To identify the specific members that are restricting Closure, perform an Inquire on the Move Request and scroll through the member list looking for a non-blank status field for a member. After restricted members have been identified, the owner can take steps to have Assignment transferred and Inventory Records approved as required.

There are five types of close restrictions and the actions for correcting each type of close restriction:

A (Assignment)

1. Inquire against the System Information in the Control File to determine the Close Assignment option. This option tells you what two user IDs are used to determine proper assignment. Also, in the System Information, look at the Move Req Assignment Option. This tells you whether the inventory has to be assigned to the Move Request being closed for proper assignment.
2. Check the MOVEREQ/CLOASSGN Control File activity to determine the relationship to the assigned user that is checked at close time. Use this information to determine whether another user can close the Move Request or whether to transfer assignment of the member to another user.
3. Inquire against the Inventory Record to determine the current assignment status. If the member is not assigned, assign it to a suitable user. If it is assigned, identify to whom it is assigned and have that user transfer the member to a suitable user.
4. If a member must be assigned, but the member is not assigned to any user, not even a CA-PanAPT Systems Administrator can close the Move Request.

If all members are assigned, the CA-PanAPT Systems Administrator can close the Move Request. If your site has requested the MOVEREQ/CLOASSGN option, which tests the user IDs of the assigned user and the user closing the Move Request, a CA-PanAPT Systems Administrator be able to close the Move Request. Otherwise, the Systems Administrator cannot close the Move Request because assignment requirements must always be met.

I (Unapproved Inventory)

Approve the Inventory Record or review the Library Code to determine whether approved Inventory Records are required for this Library Code.

C (Concurrent Development)

The Concurrent Development restriction tells you that since the time that you added the member to the Move Request, another instance of the member has been moved to its final destination. Presumably this other instance was being developed at the same time as the one for your Move Request, and its changes might not be accounted for in your copy of the member.

Once you are satisfied that the changes for this other copy of the member are accounted for in your copy, change your Move Request using the Move Request CHG action and issue the CDC Action command for your member. This clears the Concurrent Development restriction flag so that you can close your Move Request.Note that the Concurrent Development restriction flag hides the Unapproved Inventory restriction flag. If the member has unapproved inventory, the **I** flag is visible after clearing the **C** flag.

V (Rejected by Member Existence Exit)

1. Review messages written to the ISPF log.
2. Identify the Member Existence Exit named in the Library Code definition.
3. Ensure that the exit exists and that the load library in which it resides is accessible to the user who is trying to close the Move Request. See Load Libraries in Logon Procedure.
4. Determine the requirements of the Member Existence Exit specified in the Library Code. All sample exits supplied with CA-PanAPT require only that the member exist on the starting level library. Your CA-PanAPT Systems Administrator must tell you the requirements of any site-specific exits.

   Make the member satisfy the requirements of the exit. For sample exits supplied with CA-PanAPT, ensure that a copy of the member is on the starting level library for the Library Code.

*** (Undergoing development)**

You must finish development of the Move Request before it can be closed. After you are finished testing the members, use the Development Facility to check in the members for migration.

You might want to identify (online) those Move Requests that have Close Restrictions. After identifying them, you can initiate procedures to correct the conditions that are restricting Closure.

You can perform a Verification on a Move Request to reset the flags prior to final closure.

You can select Move Requests that cannot be closed from the Browse Move Requests panel. After displaying the selected Move Requests on the Browse Move Requests List panel, select any valid Move Request action to see the detail of an individual Move Request. Then scroll through the member list, reviewing the status to determine which members have close restrictions.

Final Panel Processing

Enter data as required on this panel and press ENTER. The panel is processed, and you return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel).

Note: If the Move Request only moves up one level (such as from a starting test level to a quality assurance level) and no further, the Final Move date overlays the Next Move date at this time.

Error Processing

If you try to close a Move Request that cannot be closed because of restriction flags, the number of restrictions are displayed by an error message.

If the Close process passes the restriction flag tests, but outstanding test level Verification Requirements are present, CA-PanAPT displays the Move Request Verification panel, APIP191.

Discontinue Processing

If you decide to terminate this process, enter the **END** command (PF3) instead of pressing ENTER, and you return to the panel from which you came (the Move Request Maintenance panel or the Browse Move Requests List panel) and the file is not updated.

Backing Out a Move Request

After a Move Request has been moved, you might need to back out its changes, because they might be in error or incomplete. You can accomplish this with the Back Out function, which restores previous copies of the members from backup libraries. You can also save the members of the Move Request on Back Out libraries. See the "Library Codes" chapter for details on setting up a Library Code to support backing out a Move Request.

When backing out a Move Request, all entities that are part of this Move Request are backed out, even if only one or two of the entities is the cause of the problem. CA-PanAPT considers the entire Move Request as one unit. This is the same principle that is used when a Move Request is moved forward in the library structure.

Initial Checking

CA-PanAPT first checks the Move Request to see if it has been successfully moved, that it has not begun movement up to a subsequent level (a status of Move Complete, Awaiting Approvals, or Approved). If it has not been moved, or if it has begun to be moved to the next level already, an error message is issued and you are returned to the panel from which you selected the Back Out function.

If the Move Request has been moved, the Back Out Move Request panel displays so you can verify that this is the Move Request you intend to Back Out. If you do not want to set up this Move Request for Back Out processing, enter the **END** command (PF3) to terminate the function before any changes are made for this Move Request.

Library Codes Checking

If you continue, CA-PanAPT checks the Move Request's Library Codes to see that:

- All Library Codes used in this Move Request support Back Out processing and support saving the members on a Back Out Library for the Move Level the Move Request was last moved to.
- If the Library Code has a member existence exit for the level the Move Request is moved to, the exit is used to determine if the members are on the backup library for that level.
- If the Library Code specifies the Inventory Enabled flag as Y, the member was last moved by this Move Request.

If any of the checks fail, the Back Out Warnings panel is displayed (see the Back Out Warnings panel later in this subject). Override any warnings and continue setting up the Move Request for Back Out or terminate the Back Out function.

Accessing the Back Out Function

To access the Back Out Move Request function from the Move Request Maintenance panel, type **BAK** in the Action field, enter the number of your Move Request in the Move Request field, and press ENTER.

You can also access the Back Out Move Request function by typing BAK in the Action field of the Browse Move Requests List panel.

Back Out Move Request Panel

The Back Out Move Request panel, APIP180, is used to check and prepare a Move Request for Back Out.

Panel Field Descriptions

Action

Display only. The selected action BAK entered earlier displays.

Current Status

Display only. The current status of the Move Request displays.

Move Req

Display only. Your Move Request number displays.

Description

Display only. The description of the Move Request displays.

Service request

Display only. The Service Request information of the Move Request displays.

Expanded Description

Optional. Valid values: Y (Yes) or N (No).

If an Expanded Description for the Move Request is available, Y is initially displayed in this field. If you want to view the Expanded Description, press ENTER. After viewing the Expanded Description, you are returned to this panel with an N displayed in this field to continue processing. If you do not want to view the Expanded Description, change the **Y** to **N**.

If an Expanded Description for the Move Request is not available, an N is initially displayed in this field.

If a Y is entered in this field and no Expanded Description is available for this Move Request, this panel displays with an N in the Expanded Description field.

Final Move date

Display only. Format: system date.

The date that the move to the final level is to take place displays.

Next Move date

Display only. Format: system date.

The date the move to the next level is to take place displays.

First run date

Display only. Format: system date.

The date that the Move Request entities are scheduled to be run for the first time displays.

LEVL move completed

Display only. Format: system date.

CA-PanAPT displays the level names (in place of *LEVL*) and the date that the move took place for the last two moves completed for the Move Request.

If the completion of a move is indicated by the online status change function, the level for that move is shown, but the date is blank, for the move might have taken place on a different date than the online status change.

To see the move dates for levels beyond the last two, you must run reports. Most reports that display Move Request information show a complete move date history.

Move type

Optional. Length: 1. Type: alphanumeric. Default: current value.

The value that is assigned to the Move Processing Cycle that was used to move this Move Request displays.

To set up the Move Request to be backed out in a different Move cycle, enter the value assigned to the Move Processing Cycle you want to use.

Unless you change this field, the Move Request is backed out in the currently assigned Move cycle. Select an on-demand cycle, as established by your site, to ensure that the Move Request is backed out promptly.

Request added on / / at by

Display only. Not available to Models.

on

The date this Move Request was added.

Format: system date

at

The time this Move Request was added.

Format: system time

by

The TSO user ID of the CA-PanAPT user who originally added this Move Request.

Last updated on / / at by

Display only. Not available to Models.

on

The date of the last update of this Move Request.

Format: system date

at

The time of the last update of this Move Request.

Format: system time

by

The TSO user ID of the CA-PanAPT user who last updated this Move Request.

Final Panel Processing

When you have reviewed or modified fields as required, press ENTER.

CA-PanAPT validates the Move Request to determine if the Library Codes comply with the CA-PanAPT rules for backing out a Move Request (see Library Codes Checking under the Backing Out a Move Request section earlier). If no warnings are found:

- The Move Type is updated from the value on the panel. This value controls when (during which Move cycle) the Move Request is backed out.
- The status is changed to Awaiting *LEVEL* Bkot App or App for *LEVEL* Bkot (where *LEVEL* is substituted with the short name for the Move Level), depending on whether any of the Library Codes have Back Out approval requirements for the Move Level.

Note: Back Out processing is controlled by the models you specify and by your JCL for the move cycle. You must make sure that your models perform the appropriate processing. In particular, they must determine whether to copy entities to the Back Out library as specified in the Library Code definition.

If any warnings are found, the Back Out Warnings panel, APIP181, displays.

Discontinue Processing

If you decide that you do not want to Back Out this Move Request, enter the **END** command (PF3) while viewing this panel. You are returned to the panel from which you came (the Move Request Maintenance panel or the Browse Move Requests List panel). The Back Out action is not taken and the file is not updated.

Back Out Warnings Panel

CA-PanAPT displays the Back Out Warnings panel, APIP181, when a condition occurs that causes the Move Request to fail to be Backed Out properly from the production environment.

Panel Field Descriptions

Command

Optional. Enter any valid ISPF command.

Scroll

Optional. Enter any valid ISPF scroll amount.

Action

Display only. Your selected action of BAK displays.

Currrent Status

Display only. The current status of the Move Request displays.

Move Req

Display only. Your Move Request number displays.

Description

Display only. The description of the Move Request displays.

Service request

Display only. The Service Request information of the Move Request displays.

Move type

Optional. Length: 1. Valid values: alphanumeric. Default: current value.

The current value in the Move Type field for this Move Request, or the value that was entered on the Back Out Move Request panel displays.

To prepare the Move Request to be backed out in a different Move cycle, enter the value assigned to the Move Processing Cycle you want to use.

Unless you change this field, the Move Request is backed out in the currently assigned Move cycle. Select an on-demand cycle, as established at your site, to make sure that the Move Request is backed out promptly.

Warning Messages

Display only. All warning messages display in this field. You can use the standard ISPF scroll commands to view all messages in the table.

Final Panel Processing

When you have reviewed the warning messages, you can override the warnings and continue preparing the Move Request for Back Out or terminate the Back Out function.

If you choose to override any warnings that were found, enter **OVERRIDE** on the Command line and press ENTER. CA-PanAPT sets up the Move Request for Back Out processing by updating the Move Type with the value from the panel. This value controls when (during which Move cycle) the Move Request is backed out. The status is changed to Awaiting *LEVEL* Bkot App or App for *LEVEL* Bkot (where *LEVEL* is substituted with the short name for the Move Level), depending on whether any of the Library Codes have Back Out approval requirements for the Move Level.

Note: When you override any warnings, there is a chance that during the batch portion of the Back Out function, the Move Request might fail to be properly backed out.

Your Model must account for any warning condition reported by CA-PanAPT. For example, if CA-PanAPT warns you that there is no Backup library for a Library Code and you override the warnings, your models must detect that situation. They must not attempt to read the Backup library. If a member does not exist in the Backup library, your model and JCL must take action appropriate to your site.

Discontinue Processing

If you decide that you do not want to override the warnings for this Move Request, enter the **END** command (PF3) while viewing this panel. You are returned to the initial panel from which you came (the Move Request Maintenance panel or the Browse Move Requests List panel). The Back Out action is not taken and the file is not updated.

Running Verification Procedures

Move Requests can be set up to require Verification before they are processed. Select the Verifications that are to be processed against a Move Request using the Move Request Verification panel. You can also override the JOBCARD specifications that are used for the batch execution of the Verification procedure.

The Move Request Verification panel, APIP191, displays when you select one of the following:

VER on the Move Request Closure panel, APIP190, and there are outstanding Verifications for the test level. This option is available only before closing the Move Request.

CLO on the Move Request Closure panel, APIP190, and there are outstanding Verifications for the starting level.

RVP option on the Move Request Maintenance panel, APIP100, . This is available when the Move Request is in a Being Created or Awaiting Approval status.

RVP Line Command on the Browse Move Requests List panel, APIP231. This is available when the Move Request is in a Being Created or Awaiting Approval status.

Use the Move Request Verification panel to select individual Verifications to be run. This panel displays each of the Verification Requirements for the current level of the Move Request. You can scroll the list when more requirements exist than can be displayed on a single panel.

Panel Field Descriptions

Enter JOB Statements

Required. Length: 1-72. Type: character, uppercase.

Four lines allow you to change the JOB statements that CA-PanAPT uses for the generated Verification job streams. These lines are saved in the user's profile and used for future processing. You must supply at least the first JOB statement. Blank lines are ignored. These JOB statements are not the same as those used by Retrieve Processing.

Select

Optional. Length: 1. Type: any non-blank character.

Selects the category. Selected Verifications be submitted when you enter S on the Command line.

Ver Num

Display only. The Verification Category number for the required Verification displays.

Description

Display only. The description of the Verification Category displays.

Message

Display only. A message for each Verification if it has already been processed, or if it is currently processing displays. The messages appear as follows:

*** Verified ***

The Verification has already been successfully obtained. You can choose to run it again regardless.

*** UnVerified ***

The Verification has already been run, but it posted a failure indication at the time.

*** Active ***

The Verification is currently executing.

Final Panel Processing

When you have made the appropriate selections, type S on the Command line and press ENTER. CA-PanAPT begins foreground generation of the Verification job streams you selected. When the job stream generation is complete, you return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel).

Discontinue Processing

If you decide to discontinue processing of this Move Request, enter the END command (PF3). You return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List Panel) and no JOB is generated.

View Approvals Panel

To display the Approval history for a Move Request, type **VA** on the Command line of any panel in CA-PanAPT and press ENTER, or type **VA** next to any Move Request listed on the Browse Move Requests panel. If you selected a Move Request, and there is Approval history to display, then the Approvals and Disapprovals are displayed on the View Approvals panel. A warning message might be displayed indicating that no history is available for the selected Move Request, or that no Move Request has been selected.

You can include a Move Request number with the VA command on the Command line. The history for the specified Move Request, if any exists, is displayed and the currently selected Move Request number is unaffected. Some examples are:

```
===> VA 12        Displays history for Move Request 000012.
===> VA 000012    Displays history for Move Request 000012.
===> VA 200       Displays history for Move Request 000200.
===> VA Displays history for the Move Request currently selected.
```

Note: The message COMMAND NOT ACTIVE displays when you type the **VA** command on the Command line of the View Approvals panel or on any other panel when the View Approvals panel is active. That is, you cannot use the VA command recursively. Terminate the active VA command before requesting another.

You can use any valid ISPF command or scroll amount to display additional Approvals that are not displayed on the first panel.

Panel Field Description

Command

Optional. Enter any valid ISPF command.

SCROLL

Optional. Enter any valid ISPF scroll amount.

Move Req

Display only. Your Move Request number displays.

Current status

Display only. The current status of the Move Request displays.

Level

Display only. The level for this approval category displays. This is the 1 to 4-character short name for the level. It is appended with -B for Back Out approvals.

The information is in order by level (position, not name) and by approval category within level. If a level has both move and back out approvals, the move approvals are shown first.

Approval Category

Display only. The approval category number displays. You can display the Approval Category Description by entering **AC** on the Command line of any Move Request activity panel.

Status

Display only. The status of the Approval Category displays. Values are Disapproved and Approved.

User ID

Display only. The user ID of the user who last approved or explicitly disapproved this approval category displays.

Date

Display only. Format: system date.

The date that this approval category was approved or explicitly disapproved.

Time

Display only. Format: system time.

The time that this approval category was approved or explicitly disapproved.

This field is blank if the approval category has never been approved or explicitly disapproved.

Note: Up to six lines of comment can appear with each Approval, directly under the row identifying the Approval level and category. (The comments are represented by X in the exhibit.) These are the comments which the approver entered at the time the Approval or Disapproval was made. Comments are not always required and not appear if none were entered.

Final Panel Processing

Discontinue Processing

To terminate this process, use the END command (PF3) to return to the panel where you entered the VA command.

Approving Move Requests

Approvers can determine which Move Requests need their attention by using online or batch methods. Online, approvers can use the Browse Move Requests panel to select Move Requests that have outstanding approvals for their approval category. Approvers can select Move Requests directly from the displayed list for review and approval. Through batch, approvers can see the reports produced by Job APJJ5111 (APCS5111-02 and APCS5111-03) to identify Move Requests that they must approve.

Move Requests can be set up to require Approvals before they are processed. Use the Browse Move Requests panel to give Approvals, to disapprove Approvals, or to remove Approvals or Disapprovals already given.

The Move Request Approval panel is used to update Move Request Approvals. You can display descriptions of the Approval Categories by using the AC command. You can also use the VA command to view approvals and disapprovals that have already been given.

From the Move Request Maintenance panel, type **APP** or **AP** in the Action field, enter the number of your Move Request number in the Move Request field, and press ENTER. You can also type **APP** or **AP** in the Action field of the Browse Move Requests List panel. The Move Request Approval panel, APIP210 displays.

Note: Any CA-PanAPT user can display this panel. Users must be authorized for a category to grant or revoke approvals.

Panel Field Descriptions

Action

Display only. Your selected action displays.

Current status

Display only. The current status of the Move Request displays.

Move Req

Display only. Your Move Request number displays.

Description

Display only. The description of the Move Request displays.

Next Move Date

Display only. Format: system date.

The scheduled date for the next move displays.

Final Move Date

Display only. Format: system date.

The scheduled date for the final move level displays.

Move type

Display only. The Move Processing Cycle for this Move Request displays.

Early Stop

Display only. If an Early stop level was defined for this Move Request it is displayed here; otherwise, this field be blank. An Early stop level causes a Move Request to end short of what would normally be its final destination.

Approvals required for

Display only. Indicates the level for the Approvals. This is the 1 to 4-character short name for the level. It is appended with -Bkot for Back Out approvals.

This field also contains 20 columns, one for each potential Approval category. A Y displays in each Approval category that is required for this Move Request. Blanks display in Approval categories that are not required.

Current status

Display only. This field also contains 20 columns, one for each potential Approval category.

Y

Approval has already been given for the Move Request in the Approval category.

D

Disapproval has been given for the Move Request in the Approval category.

Blanks display in Approval categories that are not required, have not been addressed, or have been explicitly disapproved.

Enter "Y", "N", or "D" for category

Optional. Length: 20. Type: alphanumeric.

This field also contains 20 columns, one for each potential Approval category.

Enter one of the following:

Y

In the column corresponding to any Approval category that you want to grant.

N

In the column corresponding to any Approval category you want to unapprove. This is used when the Approval category has already been approved or disapproved and you want to set it to an unapproved status. If you enter an N in the column corresponding to an Approval category that is already unapproved, no change takes place.

D

In the column corresponding to any category you want to disapprove. After an Approval category has been disapproved, only the user who disapproved the category or a Systems Administrator can approve or unapprove the category.

You can update several categories at one time.

CA-PanAPT accepts updates only to the Approval categories for which you are authorized.

Comments

Optional, but might be required at your site. See your CA-PanAPT Systems Administrator.

Length: 6 lines of 70 characters. Type: alphanumeric.

If D was entered in the column corresponding to any Approval category you want to revoke and the Disapproval Comments Required field on the Control File is set to Y, you must enter a comment explaining why you are disapproving this Move Request. Otherwise, the comment is optional.

If a Y was entered in the column corresponding to any Approval category you want to approve and the Approval Comments Required field on the Control File is set to Y, you must enter a comment explaining why you are approving this Move Request. Otherwise, the comment is optional.

If an N was entered in any column corresponding to any Approval category, the comment is not accepted and any previously entered comment for that category is deleted.

If no value was entered in any column corresponding to any Approval category, the comment is not accepted.

If you are approving or disapproving more than one category at a time, the same comment is captured for all categories. One comment is kept for each category for the most recent approval or disapproval.

These comments remain on the file until the Move Request is purged from the Pending file or until you change the Move Request in a way that revokes all approvals or disapprovals.

If comments are required, you must enter data on the first line.

Final Panel Processing

Enter data as required on this panel and press ENTER. The panel is processed, and you return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel).

Discontinue Processing

If you decide to discontinue processing of this Move Request, enter the END command (PF3). You return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List Panel) and the file is not updated.

Changing Move Request Dates

There are two ways to change the Move Request QA Move Date, Prod Move Date, and the First Run Date:

- the Change function
- the Date Change Function.

The Change function can be used to update any user-entered Move Request data for Move Requests in the statuses of Being Created, Awaiting QA Approval, or Awaiting Prod Approval. The Change function revokes any approvals that are granted before the Move Request is completely approved. This function also deletes all approval comments.

The Date Change function can be used at any time in the Move Request Life Cycle regardless of the current status of a Move Request. Normally, the Date Change function is limited to System Administrators or to members of a limited group. As distributed, only Administrators and users with the Operations attribute can use the DAT function.

Select the Date Change function from the Move Request Maintenance panel, APIP100. Type **DAT** in the Action field, enter the number of your Move Request in the Move Req field, and press ENTER.

You can also type **DAT** in the Action field of the Browse Move Requests List panel, APIP231.

The Move Request Date Change panel, APIP220, displays. This panel is used to update the Move Dates or the First Run Date regardless of the Move Request status. You can display Approval Category descriptions by entering the AC command.

Panel Field Descriptions

Action

Display only. Your selected action displays.

Current status

Display only. The current status of the Move Request displays.

Move Req

Display only. Your Move Request number displays.

Description

Display only. The description of the Move Request displays.

Number of modules

Display only. The total number of entities included in this Move Request displays.

App/Ver for LEVL

App Req

Display only. This field contains one column for each Approval category. A Y displays in each category that is required for the upcoming move. Blanks display in categories that are not required.

This field does not display for Move Requests that are in Being Created status.

App So Far

Display only. This field contains one column for each Approval category. A Y displays in each category that has already been granted for the upcoming move. A D displays for each category that has been explicitly disapproved. Blanks display in all categories that are not required or have not yet been addressed. This field does not display for Move Requests that are in Being Created status.

Ver Req

Display only. This field contains one column for each Verification category to close the Move Request. A Y displays in each category that is required for the upcoming move, or a Y displays if the Move Request is in Being Created status. Blanks display in categories that are not required.

Ver So Far

Display only. This field contains one column for each Verification category. A Y displays in each category that has already been successfully obtained. A U displays for each category that was unsuccessful. An S displays for each category that started but has not yet finished. Blanks display in all categories that are not required or have not yet been addressed.

Final Move date

Required. Format: system date.

This date shows the Final Move Date for this Move Request. This is the date for the move to the final level for the Move Request.

Update by typing over the date in this field. CA-PanAPT does not accept a date prior to the current date.

While the year is displayed as four digits, you need only enter two digits. CA-PanAPT converts the two-digit year into four digits, including the century.

To enter today's date, enter an equal sign (=) in the first position of the date.

Next Move date

Optional. Format: system date.

This date shows the Next Move Date for this Move Request. This is the date of the move to the next level for the Move Request. If the Move Request has been closed, and the next level is the final level, this field not appear on the panel; the Final Move date is used to schedule moves to the final level.

Update by typing over the date in this field. CA-PanAPT does not accept a date prior to the current date or later than the Final Move date. If this field is blanked out, the next move is not restricted by a date.

While the year is displayed as four digits, you need only enter two digits. CA-PanAPT converts the two-digit year into four digits, including the century. To enter today's date, enter an equal sign (=) in the first position of the date.

First run date

Optional. Format: system date.

This date shows the First Run Date for this Move Request. This field is provided for documentation purposes. It is intended to be the date these modules are first run in production.

Update by typing over the date in this field. CA-PanAPT does not accept a date prior to the Final Move date.

While the year is displayed as four digits, you need only enter two digits. CA-PanAPT converts the two-digit year into four digits, including the century. To copy the Final Move date to the First Run date, enter an equal sign (=) in the first position of the date.

Final Panel Processing

Enter data as required on this panel and press ENTER. The panel is processed, and you return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel).

Discontinue Processing

If you decide to discontinue processing of this Move Request, enter the END command (PF3). You return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel) and the file is not updated.

Note: If your upcoming move is to the final level, and the Next and Final move dates do not agree, the Next Move date appears on the panel. Normally this does not happen when the upcoming move is to the final level. This happens when you delete the final level from the Library codes (for example, the PROD level) while the Move Request is awaiting approval for the previous level (for example, QA). When this occurs, you are forced to make the dates equal. Before deleting the final level, the move dates could be different. After deleting the level, the next move level (QA) is also the final level. The exception case is when the Next Move date field contains all zeros.

Changing Move Request Statuses

Occasionally it might be necessary to change the status of a Move Request outside of the normal cycle of a Move Request. For example, you must change the status of a Move Request if you are ready to perform a move and then decide against it at the last minute.

As distributed, only Administrators and users with the Operations attribute can use the STA function.

From the Move Request Maintenance panel, type **STA** (Status) in the Action field, enter the number of your Move Request in the Move Request field, and press ENTER. You can also type **STA** in the Action field of the Browse Move Requests List panel.

The Move Request Status Change panel, APIP920, displays. This panel is used to change the status of a Move Request outside of the Move Request cycle. Only those statuses that are valid for the Move Request are displayed. The descriptions of the Approval categories can be displayed by entering the AC command.

When the status of a Move Request is changed to Deleted or Moved to *level*, Reassign/Release processing occurs. For further information, see Reassign/Release Processing at the beginning of this chapter.

Panel Field Descriptions

Action

Display only. The action STA displays.

Current status

Display only. The current status of the Move Request displays.

Move Req

Display only. Your Move Request number displays.

Description

Display only. The description of the Move Request displays.

Next Move date

Display only. Format: system date

The date the move to the next level is to take place displays.

Number of modules

Display only. The total number of entities included in this Move Request displays.

The bottom half of this panel is divided into two sections. The section on the left is used to indicate what statuses are available for this Move Request. The section on the right is used to display information about the Approvals for this Move Request.

Final Move date

Display only. Format: system date.

The date that the move to the final level is to take place displays.

Status Change Fields

These fields describe Move Request statuses. Specify which new statuses are available to this Move Request and give some additional explanation of changing statuses.

Select

This column is used to select the New Status for the Move Request.

Review the entire list of Move Request statuses. Enter any non-blank character in the one Status field for the selected new status.

Description

Display only. Only the statuses valid for the Move Request are shown.

Notes

Display only. Next to each of the displayed status codes is a column for Notes. The numbers 1 through 3 might appear in this column. These numbers refer to the numbered Text Notes that appear on the Help panels associated with this panel. Depending on the current status of the Move Request, the notes give further explanation of the ramifications of changing the Move Request to a new status.

Approvals

Required

Display only. This field contains one column for each Approval category. A Y displays in each category that is required for the upcoming move. Blanks display in categories that are not required.

So Far

Display only. This field contains one column for each Approval category. A Y displays in each category that has already been granted for the upcoming move. A D displays for each category that has been explicitly disapproved. Blanks display in all categories that are not required or have not yet been addressed.

Verifications

Required

Display only. This field contains one column for each Verification category to close the Move Request. A Y displays in each category that is required for the upcoming move, or a Y displays if the Move Request is in Being Created status. Blanks display in categories that are not required.

So Far

Display only. This field contains one column for each Verification category. A Y displays in each category that has already been successfully obtained. A U displays for each category that was unsuccessful. An S displays for each category that started but has not yet finished. Blanks display in all categories that are not required or have not yet been addressed.

Final Panel Processing

Enter data as required on this panel and press ENTER. The panel is processed, and you return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel).

Discontinue Processing

If you decide to discontinue processing of this Move Request, enter the END command (PF3). You return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel) and the file is not updated.

View Verification Procedures

To display the current Verification History for a Move Request, enter **VV** on the Command line of any panel in CA-PanAPT or enter **VV** next to any Move Request listed on the Browse Move Requests panel. If you have selected a Move Request, and if there is verification history to display, then the View Verification panel is displayed. Otherwise, a warning message displays indicating that no history is available for the selected Move Request, or that no Move Request has been selected.

You can include a Move Request number with the VV command on the Command line. The history for the specified Move Request, if any exists, displays and the currently selected Move Request number is unaffected. Some examples are:

```
===> VV 12                Displays history for Move Request 000012.
===> VV 000012  Displays history for Move Request 000012.
===> VV 200               Displays history for Move Request 000200.
===> VV          Displays history for the Move Request currently selected.
```

Note: The message COMMAND NOT ACTIVE displays when you type the **VV** command on the Command line of the View Verifications panel or on any other panel when the View Verifications panel is active. That is, you cannot use the VV command recursively. Terminate the active VV command before requesting another.

You can use ISPF scrolling commands to scroll the Verification history displayed. Each verification displays with its level, category number, status, reason code, and the date/time it was run. Up to six lines of verification comment can appear with each verification. The verifications are displayed in order by level (position, not name) and by category number within level.

Panel Field Description

SCROLL

Optional. Enter any valid ISPF scroll amount.

Move Req

Display only. The current Move Request number displays.

Current status

Display only. The current status of the Move Request displays.

Level

Display only. The level for the category displays. This is the 1 to 4-character short name for the level.

Verification Procedure

Display only. The Verification Procedure number displays. Display the Verification Procedure Category Description by entering VC on the Command line of any Move Request Activity panel.

Status

Display only. Verified or Unverified displays to reflect the success or failure of the Verification Procedure.

Reason Code

Display only. The Verification Code returned from the Verification Procedure displays.

Date

Display only. Format: system date.

The date that this category was Verified or Unverified displays.

Time

Display only. Format: system time

The time that this category was Verified or Unverified displays.

Note: Up to six lines of comment can appear with each Approval directly under the row identifying the Approval's level and category. These are the comments which the approver entered at the time the Approval or Disapproval was made. Comments are not always required and not appear if none were entered.

Final Panel Processing

Discontinue Processing

To terminate this process, use the END command (PF3) to return to the panel from where you entered the VV command.

Printing a Move Request

This panel is used to print a Move Request and to indicate where the printing is to take place. There are two ways you can display this panel:

- Type **PRT** or **P** in the Action field on the Move Request Maintenance panel, APIP100, enter the number of your Move Request in the Move Request field, and press ENTER, or
- Type **PRT** or **P** in the Action field of the Browse Move Requests List panel, APIP231, and press ENTER.

The Print a Move Request Form panel, APIP200, displays.

Panel Field Descriptions

Action

Display only. The Action PRT displays.

Move Req

Display only. Your Move Request number displays.

Routing code for printed output

Required. Length: 1. Type: numeric.

Specify one of the list destination codes displayed in the middle of the panel. This panel is updated as part of initial CA-PanAPT implementation and might contain more or fewer selections than those displayed here.

Number of Copies

Required. Length: 2. Type: numeric.

Enter the number of copies desired.

Code

Display only. The routing code number associated with a Destination and Sysout parameter displays.

Destination

Required. Length: 1-17. Type: alphanumeric.

Enter a printer destination here. The value is saved in your ISPF profile. Default printer destinations might have been supplied as part of initial CA-PanAPT implementation.

Sysout parameter

Required. Length: 1-25. Type: alphanumeric.

Enter SYSOUT printer information here. The value is saved in your ISPF profile and used as SYSOUT information on DD statements. Default values might have been supplied as part of initial CA-PanAPT implementation.

JOB STATEMENT INFORMATION

Required. Length: 1-72. Type: character, uppercase.

Four lines allow you to change the JOB statements that CA-PanAPT uses for the generated print job. These lines are saved in your ISPF profile. You must supply at least the first JOB statement. Blank lines are ignored. These JOB statements are saved separately from those used by Retrieve and Verification Procedure processing.

Final Panel Processing

Enter data as required on this panel and press ENTER. The panel is processed and a batch job is submitted to print report APCS5101-01, the Move Request Form.

You return to the panel you came from (the Move Request Maintenance panel or the Browse Move Requests List panel).

Discontinue Processing

If you decide to terminate this process and not submit the job, enter the END command (PF3) and you return to the panel you came from (the Move Requests Maintenance panel or the Browse Move Requests List panel).

Browsing Move Requests

The Browse Move Request function creates an online list of Move Requests. This list is generated according to a series of selection criteria. For example, you might want to see a list of Move Requests in a certain status or Move Requests with particular Move Dates. You can also use the list to perform other Move Request functions directly from the list or to monitor the progress of Move Requests during the current move cycle. Monitoring lets you look at the status of Move Requests that you have selected to be moved by the daily CA-PanAPT processing programs, APJJ5310 or APJJ5311. You can browse this list to determine which Move Requests are still in the process of being moved or require external processing by JCL created through the Modeling process.

You can also browse an individual Move Request to see which members have been moved or require external processing by selecting the desired Move Request.

Select the Browse function from the Move Request Maintenance panel by typing BRO or B in the Action field. Leave the Move request number field blank. If you enter any data in the Move request number field, CA-PanAPT ignores it.

Press ENTER, the Browse Move Requests panel, APIP230, displays. This panel is used to enter selection criteria when generating the Move Request List.

All selection fields are optional. All selection fields are saved in your ISPF Profile.

Panel Field Descriptions

Range Criteria

Move Request Numbers

Optional. Lengths: 1-6. Type: numeric.

CA-PanAPT selects only the Move Requests with numbers that are equal to or are between the From and To range you specify. Blanking out the From value causes the default value of 000001 to be assumed. Blanking out the To value causes the default value of 999999 to be assumed.

Final move dates

Optional. Format: system date.

CA-PanAPT selects Move Requests with Final Move Dates that are equal to or are between the From and To Final Move Dates you specify. Blanking out the entire From or To Date causes the default values (01/01/1900 and 12/31/2099) to be assumed. If an equal sign = is entered in the first position of the To Date, the current value of the From Date field is copied to the To Date field.

Next move dates

Optional. Format: system date.

CA-PanAPT selects Move Requests with Next Move Dates that are equal to or are between the From and To Next Move Dates you specify and also selects Move Requests that do not have Next Move Dates. Blanking out the entire From or To Date causes the default values (01/01/1900 and 12/31/2099) to be assumed. If an equal sign = is entered in the first position of the To Date the current value of the From Date field is copied to the To Date field.

Other Criteria

Change Name

Optional. Length: 1-16. Type: alphanumeric.

You can restrict the scope of the Move Request list to Change Names that match a pattern. The * and ? wildcard characters can be used. The value of this field is not case sensitive. To select only unnamed Move Requests, leave this field blank. To select only named Move Requests, enter ?*. Enter an * if you do not want to select by Change Name.

Library Code/Subcode

Optional. Length: 1-4/1-3. Type: alphanumeric.

Specify a current Library Code/Subcode. Only Move Requests that use this Library Code/Subcode be included in the list. The * and ? wildcard characters can be used. For example, if you specify * /JCL only Move Requests which use Subcode JCL in conjunction with any Library Code be selected. If a value of * /* is specified, this Library Code and Subcode not be considered in the development of the online list.

Member Name

Optional. Length: 1-10. Type: alphanumeric.

Enter the name of a member in a specified Library Code/Subcode. If you enter a member name, only Move Requests that use that Library Code/Subcode and involve that member are included in the online list. The * and ? wildcard characters can be used. You can search for a specific member name used in conjunction with any Library Code/Subcode by specifying * /* for the Library Code/Subcode.

Originator

Optional. Length: 1-8. Type: alphanumeric.

Enter the user ID of a CA-PanAPT user. If you enter a user ID in this field, only Move Requests that were added by that user appear in the online list. The * and ? wildcard characters can be used. If you want to search for your own Move Requests, you can enter an equal sign (=) in the first character of this field. CA-PanAPT substitutes your own user ID. WhIf you leave this field blank, it is not considered in developing the online list.

Move Type

Optional. Length: 1. Type: alphanumeric.

Specify the value of a Move Processing Cycle as entered in the Move Type field. Restrict the scope of the Move Requests list by selecting a specific Move cycle to browse. If you leave this field blank, it is not considered in developing the online list. Move Requests from all move cycles are displayed.

Project Name

Optional. Length: 1-16. Type: alphanumeric.

You can restrict the scope of the Move Request list to those which are associated with a particular Project by entering its value in this field, or you can specify a Project pattern using the * and ? wildcard characters. The value of this field is not case sensitive. Projects are used by the Development Facility to identify Development and Work libraries with a Move Request. If you leave this field blank, only Move Requests without Projects be presented in the list. To select Move Requests without regard to Project Names, enter an * for the Project. To select only Move Requests that have a project, without regard to any specific project, enter ?* for the project.

Held Move Requests

Optional. Length: 1. Type: alphanumeric.

You can restrict the scope of the Move Request list to members that have restrictions preventing the Close (CLO activity) or Move (APCS5310 selection) of the Move Request by entering any non-blank character in this field. A member with any of the following member Status values prevents its Move Request from being closed: A Member requires assignment, but it is not properly assigned. I Member requires an approved Inventory Record, but the Inventory Record is unapproved or does not exist.en you change the value of this field and press ENTER, CA-PanAPT redisplays the Browse Move Requests panel and changes the bottom part of the display to match the additional selection criteria you requested.

C

Concurrent Development. Since the time that you added the member to the Move Request, another instance of the member has been moved to its final destination.

V

Member was rejected by a site-defined Edit Exit or site-defined Edit Exit could not be found.

The C and V Status values also prevent a Move Request from being moved, and the A Status value prevents a Move Request from being moved if the Move Req Assignment Option in the Control File System Information requires assignment to a Move Request. If you leave this field blank, it is not considered in developing the online list.

Service Request

Optional. Length: 1-16. Type: alphanumeric.

You can restrict the scope of the member list to members that are associated with a particular Service Request by entering its value in this field. The value of this field is converted to uppercase.

A Service Request is an internal project identifier, work order, or problem reporting/tracking number. It is provided to help you identify and group Move Requests.

The CA-PanAPT browse processor selects all the Move Requests with the Service Request Number you entered and displays the Move Request panel.

If your Control File System Information specifies that the * and ? characters are not allowed in the Service Request field, then those characters are treated as wildcard characters when specified in this field.

Continue with processing as normal.

If you leave this field blank, it is not considered in developing the online list.

Additional criteria

Optional. Valid values: A, S, and blank.

This field controls whether additional selection criteria are to be presented on the bottom portion of this panel. For no additional selection criteria, leave this field blank. For additional selection criteria based upon Approval and Verification categories, enter A. For additional selection criteria based upon Move Request status, enter S.

Final Panel Processing

Enter data as required on these panels and press ENTER. If you changed the value of the Additional criteria, CA-PanAPT redisplays the Browse Move Requests panel and changes the bottom part of the display to match the additional selection criteria you requested. Otherwise, the Move Request list is built and the Browse Move Request List panel, APIP231, displays to view the list.

Discontinue Processing

If you decide to terminate this process and not develop or review the list, enter the END command (PF3) and you return to the Move Request Maintenance panel.

Approval and Verification Selection Criteria

If the Additional criteria field contains an A, the Browse Move Requests panel includes additional fields below the Additional criteria field.

Must satisfy all?

Optional. Valid values: Y (Yes) or N (No).

When selecting Approvals or Verifications, this specifies whether to include only the Move Requests that satisfy all of the categories selected from the Approval and Verification categories.

This switch only applies to the Approval/Verification categories.

Y

Only the Move Requests that satisfy all of the categories selected be included.

N

All Move Requests that satisfy any of the categories selected be included.

The remainder of the panel contains 1 row per level defined to your CA-PanAPT system for entering Approval and Verification selection criteria. These rows can be scrolled up and down using standard ISPF scrolling. The exhibit shows an example using the default TEST, QA, and PROD levels; you might have a different number of levels and different names.

For selection by Approval categories, the following values can be placed in the columns below the category numbers:

Y

Yes, approved. Approval is required for this category, and it has been granted.

D

Denied. Approval is required for this category, but it has been denied.

W

Waiting for approval. Approval is required for this category, but the Move Request is waiting for the approval of this category. This includes Move Requests that have not been granted approval and those that have been denied approval for this category.

N

Not waiting for approval. Move Requests that are not waiting for approval of this category. This includes Move Requests that require this category and have been granted approval and those that do not require this category.

For Move Approvals, only Move Requests in an Awaiting Approval status for the level, specified on the row on which you entered the data, be considered for the list. For Backout Approvals, only Move Requests in an Awaiting Backout Approval status for the level be considered.

For selection by Verification categories, the following values can be placed in the columns below the category number:

Y

Yes, verified. Verification is required for this category, and it has been verified.

U

Unverified. Verification is required for this category, but it is unverified.

W

Waiting for verification. Verification is required for this category, but the Move Request is waiting for verification of this category. This includes Move Requests that have not been verified and those that have been unverified for this category.

N

Not waiting for verification. Move Requests that are not waiting for verification of this category. This includes Move Requests that require this category and have been verified and those that do not require this category.

S

Started. Verification has started on this Move Request. This means the verification procedure for this category is in progress for this Move Request.

For Verification selection criteria entered for the starting test level of your CA-PanAPT system, only Move Requests in Being Created status are considered for the list. For all other levels, only Move Requests in an Awaiting Approval status for the level are considered for the list.

Status Selection Criteria

If the Additional criteria field contains an S, the Browse Move Requests panel has additional fields below the Additional criteria field.

Restrict the list of Move Requests by selecting statuses in the fields following the Additional criteria field. Enter a non-blank in any of these fields to select Move Requests for the corresponding status. Statuses CRE (Being Created) and DEL (Deleted) are in a fixed location on the panel. The remainder of the panel contains 1 row per level defined to your CA-PanAPT system (excluding the starting test level). Each row has a field under the status headings to select the corresponding status for that level. These rows can be scrolled up and down using standard ISPF scrolling. The exhibit shows an example using the default QA and PROD levels. You might have a different number of levels and different names.

The following shows the statuses selected for each status field shown on this panel.

Non-scrollable Area	Scrollable Area Under Moves	Scrollable Area Under Backout
CRE - Being Created	AW - Awaiting Approval	AW-B - Awaiting Backout Approval
DEL - Deleted	AP - Approved	AP-B - Approved for Backout
	SL - Selected	SL-B - Selected for Backout
	AM - Awaiting Move	AM-B - Awaiting Backout
	AE - Awaiting External Processing	AE-B - Awaiting Backout External Processing
	MV - Move Complete	MV-B - Backout Complete

Browsing and Processing a List

The Browse Move Requests List panel displays a list of Move Requests that match the selection criteria entered on the Browse Move Requests selection panels. After filling in any necessary selection fields on the Browse Move Requests panel, APIP230, press ENTER. The Browse Move Requests List panel, APIP231, displays.

This list can be browsed forward or backwards to review Move Request descriptions. It can also be used as a Selection list to perform other Move Request functions.

Panel Field Descriptions

Scroll

Optional. Enter any valid ISPF scroll amount.

Action

Display only. The action BRO displays in this field.

Act

Length: 3. Type: alphanumeric. Valid values: ADD, APP, BAK, CHG, CLO, COP, CR, DAT, DEL, INQ, PRT, RVP, STA, VA, and VV.

You can enter any of the valid Move Request Actions in this column, but you can process only one action at a time. The panels for the selected function are displayed and processed. When the action is completed, this panel redisplays. After processing, the action you entered is replaced with ***. The Description, Move Date, and Status be refreshed for that Move Request.

The list of Move Requests displayed not change until you return to the Browse Selection Criteria panel and re-enter Browse. For example, if the status of a Move Request changes so that it no longer meets your selection criteria, it still be displayed with its previous status. If you create a new Move Request using the copy function, it not be displayed as part of the list, even if it meets your selection criteria.

To recreate the list of Move Requests, enter the **END** command (PF3) to return to the Browse Selection Criteria panel and then press ENTER to re-enter Browse.

Move

Display only. The Move Request number of all displayed Move Requests.

Description

Display only. The description of all displayed Move Requests.

Status

Display only. This column shows an abbreviation for the current status of all displayed Move Requests.

Final Panel Processing

Select any Move Request for further processing by entering a valid value in the Act field and pressing ENTER. You then proceed to the requested CA-PanAPT function panels. When that processing completes, you return to this panel and the action you entered is replaced by ***.

Browsing the List

To browse down the online list (page down one panel's worth of data) use the DOWN command (PF8). To browse backwards (page up one panel's worth of data) use the UP command (PF7).

Discontinue Processing

If you decide to terminate this process, use the **END** command (PF3) to return to the Browse Move Requests panel, APIP230.

Chapter 6: Setups for Different Types of Moves

CA-PanAPT Library Codes designate the libraries that a particular type of member moves through and the processing options for that type of member. This chapter describes how to set up Library Codes and gives guidelines for using your online libraries.

Note: For information on processing Move Requests in a DB2 environment, see the *CA-PanAPT DB2 Option Reference Guide.*

This section contains the following topics:

Library Setup Process (see page 276)
Partitioned Data Set Moves (see page 276)
CA-PFF Moves (see page 280)
CA-Librarian Moves (see page 281)
CA-Panvalet Moves (see page 285)
CA-Panexec Moves (see page 292)
CA-Telon Moves (see page 300)
Compile JCL Moves (see page 329)
Special Handling and Null Moves (see page 330)
Online Library Guidelines (see page 332)
Posting Member Status for External Processing (see page 333)

Library Setup Process

This section describes the setup required to perform different types of moves. As a rule, the setup process includes one or more of the following steps:

1. Allocate (create) or identify the data sets to be used at each stage of turnover.
2. Determine the values for the Library Code definition.
3. Specify member-existence exits in the Library Code if this type of editing is desired and if an appropriate exit exists. CA-PanAPT supplied exit programs are named APAS0200 (PDS), APCS0221 (CA-Librarian), APAS0222 (CA-Panvalet), APAS0223 (CA-Panexec), and APAS0226 (CA-Telon TDF).
4. Define the Library Code using CA-PanAPT Library Code maintenance panels.
5. Specify appropriate models for the Library Code. Models generate JCL and control statements for processing members for the Library Code.

Partitioned Data Set Moves

Partitioned Data Sets (PDS) are the most common type of library. Almost all libraries could be PDSs, and several kinds of libraries must be PDSs, including procedure libraries.

Member-existence Exit: APAS0200

Library Code Specifications

On the Library Code Maintenance - General Info. panel, specify eight or less (according to your site standards) for the maximum length allowed. Also, specify the minimum length allowed according to your site standards. Member names can be the same or different.

This model does not use data in the user-data fields.

This model does not use inventory data. You can specify Inventory and Assignment options as you desire. If you want to Retrieve members for this Library Code, you must specify the Inventory, Assignment, and Retrieve values as enabled.

If this Library Code shares its Production Library with another Library Code, you must specify the same Inventory Qualifier for both.

Model Specifications

The model, APJMPDS, is used to process PDS moves. This model gives you two choices on how to generate move JCL. You can generate a separate set of job steps for each Library Code, or you can have all Library Codes moved in the same job step. If you use separate job steps, you have an easier time restarting the move and determining what failed if a step fails. If you use common job steps, your move might run faster. The default is to use separate job steps for each Library Code. You can change the default by setting user keyword GPDS_GROUPED to **Y**. While this can be done in your model specifications, it is more appropriate to set it in model APJMLEAD or APJMPDS.

In your Library Code, set your Model Specifications as follows:

```
INCLUDE APJMPDS
```

Library Code Specifications

On the Library Code Maintenance - General Info. panel, specify eight or less (according to your site standards) for the maximum length allowed. Also, specify the minimum length allowed according to your site standards. Member names can be the same or they can be different.

This model does not use data in the user-data fields.

This model does not use inventory data. You can specify Inventory and Assignment options, as you desire. If you want to Retrieve members for this Library Code, you must specify the Inventory, Assignment, and Retrieve values, as enabled.

If this Library Code shares its Production Library with another Library Code, you must specify the same Inventory Qualifier for both.

Model Specifications

The model, APJMPFF, is used to process CA-PFF moves.

This model uses parameters to specify how CA-PFF is to back up members from the PROD libraries, whether to process ALIAS members, and the type of members in a PDS. All user keywords must be specified. Specify the value for each keyword as described below. The keywords must be set before the INCLUDE.

ALIAS

Specifies how CA-PFF is to process aliases on a PDS. Valid values are Y and N.

When ALIAS=Y, CA-PFF processes main/alias structures. If you specify the member name or an alias, the member name with *all* the aliases is copied.

When ALIAS=N, only the member or alias named is copied.

LIBTYPE

Specifies the type of PDS being processed. This model validates the value for the correct content. If the content is not valid, an appropriate error message is issued. Valid values are: '', 'SOURCE', 'EXEC', and 'OBJECT'. When the null value ('') is used, LIBTYPE is set to 'SOURCE'.

The example below specifies that there is NO alias, and the library contains SOURCE members.

```
ALIAS=N; LIBTYPE=''; INCLUDE APJMPFF;
```

Protection Files

APJMPFF uses user variables to specify whether members are saved on protection files prior to being deleted or replaced. To use a protection file for any CA-PFF library defined in your Library Code, set the keyword PF_*DDN* to the data set name of the protection file, excluding the GDG generation reference at the end of the name. Substitute *DDN* with the ddname of the library this protection file is for.

For example, to use a protection file named PAYROLL.PROD.PDSBKUP for library PAYROLL.PROD.PDS with PFFP as the ddname for PAYROLL.PROD.PDS, designate the following in your model specifications before including the APJMPFF model:

```
PF_PFFP = 'PAYROLL.PROD.PDSBKUP'
```

The model also inspects other user keywords to determine what unit the protection file is on, and any other parms that should be specified on the DD statements.

User keyword GPFF_PFUNIT is used to specify the unit. If not specified, this defaults to TAPE. If used, set this keyword in either the APJMLEAD model or the APJMPFF model, not in your Library Code model specifications. Override the unit for any Library Code by designating the PV_PFUNIT user keyword in its model specifications before including the APJMPFF model.

GPFFLOAD must be set to the name of the installation PFF load library and GPFFCACHE must be set to the PFF CACHE library. Keyword G_DSCB must be set to a meaningful model DSCB name. Finally, GREGNSZ is currently set to 4096K. All of these keywords are present as comments in APJMLEAD.

CA-PFF Moves

CA-PFF is a Partitioned Data Set (PDS) library management system from Computer Associates Inc. It can be used in place of IEBCOPY to control PDS libraries.

Member-existence Exit: APAS0200

This exit is used to verify the existence of members in a PDS.

PDS to CA-PFF Conversion

If you are converting existing Library Codes that were using PDS moves to CA-PFF moves, remember to change the existing Library Codes to use the CA-PFF model instead of the PDS model.

Limitations

Processing with GDG protection files requires special attention because the GDG number is updated only at the end of the JOB. CA-PFF protection files are typically merge files created by using the previous protection file as input and adding new members. Trying to use the same GDG protection file twice causes JCL errors.

You can avoid this problem if you:

- Use unique GDG indexes for each Library Code so that protection file processing never refers to the same protection file for different Library Codes.
- Consider splitting the batch processing cycle to separate the various Library Codes. Each job can then create its own unique generation of the GDG.

Note: If you have not created any previous CA-PFF PROTECTION GDG data sets, you receive a JCL error the first time you run the data set in your job. This error occurs because the generation (0) data set does not exist. To avoid the JCL error, create the generation (0) data set before using this JCL.

CA-Librarian Moves

CA-Librarian is a library management system from Computer Associates International Inc.

Member-existence Exit: APCS0221

APCS0221 uses the CA-Librarian FAIR routines. FAIR must be available to this exit.

Library Code Specifications

On the Library Code Maintenance - General Info panel, specify eight or less (according to your site standards) for the maximum length allowed. Member names at different levels can be the same or they can be different.

Model Specifications

The model, APJMLIBR, is used to process CA-Librarian moves. It uses both the AFOLIBR program and the LIBRCOPY program to perform the moves.

Typically it is desirable to use the AFOLIBR UTILITY copy at the beginning of a Move Cycle, for example, moving the program out of the development test library into a quality assurance library. This way all versions that were created during testing are retained in the quality assurance copy. If you need to back out a move, you can still access prior versions.

After sufficient testing at a quality assurance level, it is desirable to use the LIBRCOPY program, so that only the most recent changes are moved to subsequent levels. The APJMLIBR model supports this type of movement. You define to the model the target move level where LIBRCOPY should be used instead of AFOLIBR. Moves to that level and all higher levels are done using LIBRCOPY. This level is defined globally by setting the GLIB_LIBRCOPY_LVL user keyword to the level's one-to-four character short name. This can be overridden for any Library Code by setting the LIB_LIBRCOPY_LVL user keyword (no G prefix). The GLIB_LIBRCOPY_LVL keyword should be set in either the APJMLEAD or APJMLIBR model. The LIB_LIBRCOPY_LVL override keyword, if used, should be set in the model specifications before including the APJMLIBR model. If neither are specified, LIBRCOPY is used for all moves.

Note: If you specify either the GLIB_LIBRCOPY_LVL or the LIB_LIBRCOPY_LVL user keywords, remember to change them if you ever change the corresponding level short name on the Control file. If you fail to do so, the APJMLIBR model aborts the next time it is used.

You can also set the names of the AFOLIBR and LIBRCOPY programs, in case you installed CA-Librarian using different program names. This is controlled on a global basis by setting the GLIBR_PGM and GLIBRCOPY_PGM user keywords in either the APJMLEAD or APJMLIBR model. This can be overridden for any Library Code by setting the LIBR_PGM and LIBRCOPY_PGM user keywords (no G prefix) in the model specifications before including the APJMLIBR model. If neither is specified, LIBRCOPY is used for all moves.

In your Library Code, set your Model Specifications as follows:

```
LIB_LIBRCOPY_LVL = 'LEVL' (only if overriding the default)

INCLUDE APJMLIBR
```

The APJMLIBR model builds a history record, which can be customized, on the move from the first level. As delivered, the information put into the record is the move request number and the service request data. The level at which the LIBRCOPY utility is used is the point at which the last history record (most likely the one created in the first level move) is carried to the target library, and all prior history records are discarded.

CA-Librarian release 4.2 uses two types of library structures, the traditional Advanced File Organization (AFO) and the new, wide-record master file. CA-PanAPT requires all librarian libraries to be the same type of structure for a specific library code. To alert CA-PanAPT to the type of master being used, you must supply the access-method in the Library Maintenance, Level detail panel. For wide-record masters, 'LW' is the two-character code that identifies the access-method. For 'AFO' masters the access-method code is 'L' which is also the default if the field is left blank. The distinction between library structures is necessary because the new wide-record structure requires different procedures for utility copies, a one-step as opposed to the traditional two-step job.

Note: When dealing with wide-records, the LIBRCOPY program requires that all members being copied have the same LRECL. Otherwise a non-zero return code and error messages are given.

To accommodate CA-Librarian security, the check-out and move models examine the security fields specified in the library code. A blank security field indicates that there is no internal security. If a site employs the management code, then the four-digit, base code should be provided in the first four spaces of the security field of the Library Maintenance, level detail panel. If all members in a library have a specific status, the second four-characters of this security field contains a four-character status code: TEST; PRD0; PRD1; PRD2. For example, the security field of a library having a base MCD of 1111 and a status of PROD2 is: 1111PRD2__.

Once the Library codes have been set up, the current MCD code is determined by running the command through a provided utility, APC5921, that computes the base code with Today's date. This utility generally acts as a pre-step to any CA-Librarian operations. It can massage command streams and, through use of the FAIR routines, determine a member's existence and password. If a member is not found, the command is discarded. In some instances this is desirable as, for example, when a new source code member is deleted from a backup file! However, in an upward move situation the members are expected to be on the origin library, in which case you would not want the commands to be massaged. Any CA-Librarian commands beginning with '%' rather than '-' are subject to manipulation by this utility. Commands starting with '-' are merely read from the APTINPUT file and immediately written out to a SYSIN file for execution in a subsequent step.

Model Notes

The load modules for CA-Librarian must be available to the steps generated by the APJMLIBR model. If these are not in your Linklist, either modify model APJMLIBR to include appropriate STEPLIB information, or better yet, modify model APJMJBST to include appropriate JOBLIB information.

CA-Panvalet Moves

CA-Panvalet is a library management system from Computer Associates International Inc.

Member-existence Exit: APAS0222

APAS0222 uses CA-Panvalet PAM routines. PAM must be available to this exit. See your CA-Panvalet documentation for alternative methods.

Library Code Specifications

On the Library Code Maintenance - General Info. panel, specify that the From and To names must be equal.

Model Specifications

Styles of Move JCL

Model APJMPANV is used to process CA-Panvalet moves. It can generate two different styles of move JCL; one being a series of CA-Panvalet job steps, the other being a single step move using REXX. The REXX style of move is for compatibility with release 1.3 of CA-PanAPT. There is no benefit to using this style of move any more unless you are having trouble keeping your number of job steps for a move below the JES maximum of 255, or if you are having GDG problems (described later).

The GPV_REXX user keyword is used to specify whether the model generates REXX move JCL (a value of Y) or standard move JCL (a value of N). The default is to generate standard move JCL. If used, set this keyword set in either the APJMLEAD model or the APJMPANV model, not in your Library Code model specifications.

Protection Files

This model uses user keywords to specify whether members are saved on protection files prior to being deleted or replaced. To use a protection file for any CA-Panvalet library defined in your Library Code, set the keyword PF_*DDN* to the data set name of the protection file, excluding the GDG generation reference at the end of the name. Substitute *DDN* with the ddname of the library this protection file is for.

For example, if you want to use a protection file named PAYROLL.PROD.PANBKUP for library PAYROLL.PROD.PANLIB and the ddname for PAYROLL.PROD.PANLIB is PAYROLLP, designate the following in your model specifications before including the APJMPANV model:

```
PF_PAYROLLP = 'PAYROLL.PROD.PANBKUP'
```

The model also inspects other user keywords to determine what unit the protection file is on, and any other parms that should be specified on the DD statements.

User keyword GPV_PFUNIT is used to specify the unit. If not specified, this defaults to TAPE. If used, set this keyword in either the APJMLEAD model or the APJMPANV model, not in your Library Code model specifications. Override the unit for any Library Code by designating the PV_PFUNIT user keyword in its model specifications before including the APJMPANV model.

You can specify miscellaneous DCB information to be used when creating protection files. For the standard move JCL, place this information on a continuation line of the output DD statement. For the REXX move JCL, embed this information within an APTALLOC command to allocate the protection file. APTALLOC is virtually identical to the TSO ALLOCATE command, but is set up to allocate GDG data sets. Typical information you might want to specify are expiration dates or retention periods.

Because the format of the miscellaneous DCB information is different for the standard move JCL than for the REXX move JCL, different user keywords are used to specify the information. This way your Library Codes can be set up to work either way. For the standard move JCL, you can set a default for your Library Code using the PF_TMSPARM user keyword, and override it for a specific protection file using the PF_*DDN*_TMSPARM user keyword. Substitute *DDN* with the ddname of the library this protection file is for.

For example, to set a retention period of 30 days for output protection files, you would specify the following:

```
PF_TMSPARM = 'RETPD=30'
```

For REXX style move JCL, specify the DCB information using the TMSPARM user variable. There are no means to override it for a specific protection file. For a block size of 32000, specify the following:

```
TMSPARM = 'BLKSIZE(32000)'
```

CAPanvalet Lock

If you are using the CA-Panvalet lock facility, it is necessary to unlock members being replaced in the move job before they are removed. If you are running version 14.1 of CA-Panvalet, the PAN#1 program is used to unlock members; if you are running a higher version, the PAN#2 program is used (lock does not apply to earlier versions of CA-Panvalet). You must specify the version of CA-Panvalet you are running by setting the **GPV_VERSION** user keyword in either the APJMLEAD or APJMPANV model. If you do not specify anything, the default is version 14.2, which is satisfactory for either version 14.2 or 14.3 of CA-Panvalet.

If you are generating REXX style move JCL, the REXX procedure examines the CA-Panvalet library and automatically performs an unlock of any locked members. If you are generating the standard move JCL, you must specify to the model whether or not there might be any locked members. Additional job steps can be generated to unlock these members. The GPV_LOCK user keyword can be set to either **Y** or **N** to designate a system-wide default. Specify this keyword in either the APJMLEAD or APJMPANV model. If it is not specified, it defaults to N, meaning no unlocks are performed. Override this in any Library Code by specifying the **LOCK** user keyword in the model specifications before including the APJMPANV model.

Sample Model Specifications, standard JCL and Protection Files:

```
PF_PAYROLLT = 'PAYROLL.TEST.PANBKUP'

PF_PAYROLLQ = 'PAYROLL.QA.PANBKUP'

PF_PAYROLLP = 'PAYROLL.PROD.PANBKUP'

PF_TMSPARM  = 'DCB=BLKSIZE=32000'

INCLUDE APJMPANV
```

Sample Model Specifications, REXX JCL and Protection Files:

```
PF_PAYROLLT = 'PAYROLL.TEST.PANBKUP'

PF_PAYROLLQ = 'PAYROLL.QA.PANBKUP'

PF_PAYROLLP = 'PAYROLL.PROD.PANBKUP'
```

```
TMSPARM     = 'BLKSIZE(32000)'

INCLUDE APJMPANV
```

Sample Model Specifications, standard or REXX JCL with no Protection Files:

```
INCLUDE APJMPANV
```

GDG Considerations

Limitations with the standard move style JCL:

When members are being deleted to protection files, these protection files are maintained as GDG data sets. This processing requires special attention because the actual data set name corresponding to relative generations is not adjusted immediately when new generations are created, but is deferred until the end of the job. If the same GDG index is used in two different delete steps of a job, you encounter JCL errors.

This situation can occur in two different ways.

- If you have two different Library Codes that access the same sets of CA-Panvalet libraries that are both used in the same move cycles. The first Library Code is processed correctly. The second runs into problems in its steps to delete members to protection files.
- If you are moving members rather than copying them from some level higher than the starting level, you can encounter problems if you are performing moves both to and from that level in the same move cycle. For example, you are using the default levels of Test, QA, and Prod. You have a Library Code that used a protection file for the QA CA-Panvalet library, and when moving from QA to Prod you Move the members rather than Copy them. In a Move Cycle, you have QA to Prod moves involving this Library Code for one Move Request, and Test to QA moves for another Move Request. During the QA to Prod move, the QA members are deleted to the GDG QA protection file. At the beginning of the Test to QA move you run into problems if it is necessary to delete members from the QA library before moving the members from Test to QA.

If you encounter these problems, just use the normal restart procedures to get through the current move cycle. Because you are restarting as a new job, the correct data sets are used. After the move completes, you can take one of three actions to prevent this from happening in the future:

1. Quit using protection files.

2. Change to use the REXX style of Move JCL. It uses APTALLOC instead of JCL to allocate the GDG data sets. APTALLOC uses a feature of dynamic allocation that commits new GDG versions when the data sets are closed, instead of at the end of the job.
3. Change the CA-Panvalet model to generate a new job at the end of the move JCL, and to submit that job.

Other GDG problems:

If you have not created any previous CA-Panvalet protection files, you receive a JCL error when running the standard style of move JCL, or an APTALLOC error for the REXX style of move JCL the first time you perform a move using that protection file. To remedy this, create the first generation manually.

CA-Panexec Moves

CA-PanAPT supports the use of CA-Panexec libraries in a manner similar to the way it supports CA-Panvalet libraries. Two different types of CA-Panexec processing are supported through the distributed Models, cataloged procedures, and PARM members. These two methods are samples of techniques you should find useful.

You can have other CA-Panexec processing needs that are not satisfied. CA-Panexec provides a great deal of flexibility in manipulating and controlling executable and object programs. For these needs, you must write your own Model and any associated JCL using the supplied CA-Panexec models and associated members as examples.

Processing with Protection Files

Note: Each CA-Panexec group should have a separate Library Code. All Library Codes in the same CA-Panexec Library should all have the same Inventory Qualifier.

Member-existence Exit: APAS0200 or APAS0223

You can specify exit **APAS0200** (the PDS member existence exit) for CA-Panexec Library Codes that use the default Group, Type, and Mode for the libraries. Otherwise, you must use exit **APAS0223**. APAS0200 does not use any parameter data.

When you specify exit APAS0223 in the Test exit field of the Library Code definition, you must also specify a parameter to include the CA-Panexec group, type, status, and mode. Group and Type each consist of one- to eight-characters followed by a comma. The Status and Mode are each a single character without a separating comma. For example:

```
Test exit (APAS0223) (MYGROUP,EXEC,TA)
```

In this example, MYGROUP is the group for any members of this Library Code in the CA-Panexec library. EXEC is the Type of member on the library. T (test) is the status of all members associated with this Library Code. The Mode is A (active). You must ensure that these values match the appropriate model specifications in the Library Code definition.

Move Request Specifications

APJMPEX, the CA-Panexec model, and APAS0223, the CA-Panexec member existence exit, allow you to override the group value for individual members of a Move Request.

Any value you specify as From User Data for the member in the Move Request is taken as the group value for that member only.

Model Specifications

The CA-Panexec Model, APJMPEX, processes CA-Panexec moves with support for protection files.

Setting Up a Move

Model APJMPEX is used to process a CA-Panexec move. The Model Specifications that are used to drive APJMPEX are:

```
CMDOPT = 'F'; SELGRP = ''; SELTYPE = ''; SELSTAT = ''; SELMODE
= 'A';

INCLUDE APJMPEX
```

This model can handle both protection file and non-protection file moves, unlike earlier versions of CA-PanAPT which had separate models for each type of move. Certain keywords residing in APJMLEAD need to be uncommented and modified to suit the local computing environment. GSCRSPA and GPANESRL must be activated in any CA-Panexec/CA-PanAPT environment. IF GDG data sets are being used, G_TMSPARM, G_TAPE and G_GDG_DCB must be activated and set also.

Protection Files

This model uses user keywords to specify whether members are saved on a protection file prior to being deleted or replaced. To use a protection file for a CA-Panexec library, the library code specification must include the keyword PF_*DDN*. This must be set to the data set name of the protection file, excluding the GDG generation reference at the end of the name. Substitute *DDN* with the ddname of the library this protection file is for.

For example, to use a protection file named SYS2.PROD.XLIBBKUP for library SYS2.PROD.XLIB with the ddname for SYS2.PROD.XLIB being XLIBDDNP, supply the following in your model specification before including the APJMPEX model:

```
PF_XLIBDDNP = 'SYS2.PROD.XLIBBKUP'
```

Other DD information pertaining to the protection file is picked up from APJMLEAD or can be given in the model specification in the same fashion. Where protection files are not used, the %REMOVE statement generated moves the REMOVEd member to a temporary file that is deleted at the end of the job step.

The keywords must be set before the APJMPEX Model is INCLUDEd, or Modeling errors occur. An explanation of these keywords follows:

CMDOPT Keyword

This keyword controls the scope of the %REMOVE and %TRANSFER commands. The following table shows all possible values for this keyword.

Value	Causes the subcommands that are used to select the elements to work:
F	against the entire file
G	only against a specific group
E	against a specific element cluster in a specific group
blank	only against a single fully qualified element name

SELGRP Keyword

This keyword specifies the group that is most often used. The user data fields can override this value. Enter your default group here. If you leave it as '' (not used), and the user data fields are not filled in, and if the CMDOPT keyword is *F* (the CA-PanAPT default) you could process same-named members in two or more groups. You want to avoid this kind of confusion, so select these keyword values carefully.

SELTYPE Keyword

This keyword specifies the type of members that are processed by this Library Code. The following table shows all possible values for this keyword.

Value	Type of Member Selected and Processed
EXEC	EXEC
OBJ	OBJECT

Value	Type of Member Selected and Processed
CNTL	CNTL
blank '' (null)	All three types of members

SELSTAT Keyword

This keyword specifies the status of the members that are selected and processed by this Library Code. The following table shows all possible values for this keyword.

Value	Status of Members Selected and Processed
P	Production
T	Test
blank '' (null)	Production and Test

SELMODE Keyword

This keyword specifies the mode of the members that are selected and processed by this Library Code. The following table shows all possible values for this keyword.

Value	Mode of Members Selected and Processed
A	Active
D	Disabled
I	Inactive
blank '' (null)	active, disabled and inactive

The CA-PanAPT default for this keyword is A. It is suggested that you do not set this keyword to blank, n, (null). The CA-Panexec %REMOVE command works differently than the other management command/ subcommands; if you leave the MODE blank, n (null), it defaults to disabled members only. Thus, the %TRANSFER command-generated could be moving a different set of members than the %REMOVE removed. This might cause errors in CA-Panexec processing that then needs to be manually corrected.

Miscellaneous Notes

The use of the keywords CMDOPT, SELGRP, SELTYPE, SELSTAT, SELMODE allow for the greatest degree of flexibility in generating the desired selection subcommands used by the %REMOVE and %TRANSFER commands. A single command can process a hundred elements or only one, depending on how the CA-Panexec commands and subcommands are generated.

Familiarize yourself with the workings of the CA-Panexec management commands and subcommands in general, and specifically with the %TRANSFER and %REMOVE commands. These sections are covered in the *CA-Panexec System Reference Guide* in the chapter "Management Commands." Pay particular attention to the sections of Subcommands, under %Transfer and %Remove, and Subcommand Naming Defaults, especially the chart that is shown in the Subcommand Overview.

In general, it is preferable to generate the %REMOVE and %TRANSFER commands and subcommands to process the same members (allowing for renames) so that there is not a problem caused by trying to move a member that already exists on the target library.

Limitations

The use of protection files with this Model can be constrained or impacted by design differences between CA-PanAPT, CA-Panexec, and GDG (Generation Data set Group) processing requirements. It is important that you understand these limitations because errors could result. The error you experience in these situations is a JCL error that indicates that the disposition of the data set is inconsistent with its use.

CA-PanAPT is designed to allow the deletion of members in the QA Library level at two separate times, during the removal of an obsolete member to make room for the new member, and during the scratch of a copy of a member after it has been moved. Because these deletions occur in different points of the procedure, the deleted members are in separate steps, requiring separate CA-Panexec executions.

Generally, most CA-Panexec customers match-merge the %REMOVEd members with the previous protection file creating a new protection file. This is accomplished through the use of a GDG (Generation Data set Group). The problem that might occur is caused by the fact that the relative version of the new generation of the GDG is not recalculated after each step. Instead, it is recalculated only after the entire job has completed.

Processing without Protection Files

Use each Library Code for members in a single CA-Panexec group. If a CA-Panexec library contains more than one group, it requires more than one Library Code. These Library Codes should all have the same Inventory Qualifier.

Member-existence Exit: APAS0200 or APAS0223

You can specify exit **APAS0200** (the PDS member existence exit) for CA-Panexec Library Codes that use the default Group, Type, and Mode for the libraries. Otherwise, you must use exit **APAS0223**. APAS0200 does not use any parameter data.

When you specify exit APAS0223 in the Test exit field of the Library Code definition, you must also specify a parameter to include the CA-Panexec group, type, status, and mode.

Group and Type each consist of one- to eight-characters followed by a comma. The Status and Mode are each a single character without a separating comma. For example:

```
Test exit (APAS0223) (MYGROUP,EXEC,TA)
```

In this example, MYGROUP is the group for any members of this Library Code in the CA-Panexec library. EXEC is the Type of member on the library. T (test) is the status of all members associated with this Library Code. A (active) is the Mode. You must ensure that these values match the appropriate model specifications in the Library Code definition.

Move Request Specifications

APJMPEX, the CA-Panexec model, and APAS0223, the CA-Panexec member existence exit, allow you to override the group value for individual members of a Move Request.

Any value you specify as From User Data for the member in the Move Request is taken as the group value for that member only.

Model Specifications

The CA-Panexec Model APJMPEX processes CA-Panexec moves without support for protection files.

The Model Specifications that are used to drive the APJMPEX Model are as follows:

```
CMDOPT = 'F'; SELGRP = ''; SELTYPE = ''; SELSTAT = ''; SELMODE = 'A'

INCLUDE APJMPEX
```

These Model Specifications are the default specifications used in the sample Library Code PEX2 that appears on the supplied Library Code File.

The keywords that are set before the APJMPEX Model is INCLUDEd are required and must be specified or unpredictable Modeling errors occur.

CA-Telon Moves

CA-Telon is an application development tool that generates COBOL and PL1 code from Computer Associates International Inc. For further information on CA-Telon, see the CA-Telon documentation.

A CA-Telon move requires moving the CA-Telon program definition from the CA-Telon Design Facility (TDF) or moving some of the work products of the CA-Telon development cycle.

Only the CA-Telon definition in the TDF is treated here in detail. The work products of the CA-Telon development cycle reside in PDS or CA-Panvalet libraries and can be moved using Library Codes and procedures, described elsewhere in this chapter.

This discussion identifies the work products and Library Code specifications for you to use in preparing for CA-Telon moves. For further details about moving these members, please see the discussion of setting up for each library type later in this section.

Types of TDF Moves

The following table shows the models you can use to move TDF members.

TDF Member Movement	Model
To another production TDF.	APJMT2TD
To a CA-Panvalet member.	APJMT2PV
To a PDS LOADLIB member.	APJMT2LL
To a PDS member.	APJMT2PD
To a Production-level TDF and to a member of an executable load module library.	APJMTTDL
To a member of a CA-Panvalet library and to a member of an executable load module library.	APJMTPVL
To a member of a PDS library and to a member of an executable load module library.	APJMTPDL

Review your current CA-Telon Production turnover procedures to identify the model most appropriate for your site. You can also choose to develop your own custom model that combines features of several models provided with CA-PanAPT.

If you extract a CA-Telon definition from the TDF at the Test level to a PDS or CA-Panvalet library, you can move that definition using the APJMPDS or APJMPANV model supplied as part of CA-PanAPT. See the discussion of setting up for the appropriate type of move elsewhere in this chapter. You can also use models you have written.

Types of CA-Telon-Related Entities

You can generate source code or executable load modules from CA-Telon definitions.

COBOL or PL/I Source Code Generated by CA-Telon

Your site can generate COBOL or PL/I source code as a work product from CA-Telon definitions.

Source code can reside as a member of a PDS or CA-Panvalet library. Establish a Library Code for the type of library used at your site. CA-Telon places no restrictions on Library Code specifications, but you must specify the options required by the models and the JCL you want to use to move the members. Please see the discussion of setting up for the appropriate type of source move elsewhere in this chapter. You can also use models you have written.

Executable Load Modules

You can create executable load modules using APJMT2LL. APJMT2LL includes the complete CA-Telon generation, compile, and link process.

If you create executable load modules at the Test level, you can move them into Production using the PDS model APJMPDS. See the section Partitioned Data Set Moves at the beginning of this chapter.

Cataloged Procedures used by CA-PanAPT Models

The following table lists CA-PanAPT models and the CA-Telon-cataloged procedures that they use. The CA-Telon procedures must be in a procedure library accessible by CA-PanAPT move and Retrieve processing.

Function	CA-PanAPT Models	CA-Telon Cataloged Procedures
Retrieve	APJCT2TD	TLNUXDEF, TLNUMDEF
	APJCPV2T	TLNUMPAN
	APJCPD2T	TLNUMDEF
Move	APJMT2PV	TLNUXPAN, TLNUDDEF
	APJMT2PD	TLNUXDEF, TLNUMDEF

Function	CA-PanAPT Models	CA-Telon Cataloged Procedures
	APJMT2TD	TLNUXDEF, TLNUMDEF, TLNUDDEF
Move/Generate	APJMTPVL	TLNUXPAN, TLNUDDEF, Common CA-Telon Compile Proc
	APJMTDPL	TLNUXDEF, TLNUDDEF, Common CA-Telon Compile Proc
	APJMTTDL	TLNUXDEF, TLNUMDEF, TLNUDDEF, Common CA-Telon Compile Proc
Generate	APJMT2LL	Common CA-Telon Compile Procedures
Common CA-Telon Compile Procedures		TLNCXGCL, TLNCXGPL, TLNIXG2L, TLNIXGCL, TLNIXGPL, TLNBXGCL, TLNBXGPL, TLNBXG2L, TL2CXGCL, TL2CXGPL, TL2CXG2L, TL2IXGCL, TL2IXGPL, TL2IXG2L, TL2BXGPL, TL2BXG2L

Member Existence Exit

The member existence exit for CA-Telon TDF entities and for all types of CA-Telon moves is APAS0226. This exit is shipped in source code format so additional processes can be added, if desired.

This section presents information that applies to each of the CA-Telon move models discussed above.

Exit Operation

You must specify TDF entities to the exit as eight-character names in the following format:

nnnnnnTT

where *nnnnnn* is the TDF member name (TDFMEM) and *TT* is the CA-Telon definition type (for example, SD or BD).

The models, on the other hand, accept six- or eight-character entity names. (Any other length is reported as an error by both the exit and the models.) If you specify a six-character entity name, the models use the CA-Telon definition type specified in the Library Code modeling information. If you specify an eight-character entity name, the models assume that the name's last two characters are a legal CA-Telon-definition type.

Your Systems Programmer can modify the CA-Telon member existence exit to accept six-character names. If he does so, he must tell you how the modification works. In addition, the CA-Telon member existence exit appends .TNTDF to the VS Qualifier in the CA-Telon procs.

Exit Performance

You can improve performance for the CA-Telon member existence exit by preallocating the CA-Telon TDF in your JCL (LOGON proc) or in the CLIST used to invoke CA-PanAPT and specifying an exit parameter in the Library Code definition.

For example, you can add the following statement to your JCL to preallocate the CA-Telon TDF:

```
//TESTTDF DD DISP=SHR,DSN=your.telon.testtdf
```

You can also allocate the TDF by adding the following TSO command to the beginning of your APT CLIST:

```
alloc f(testtdf) da('your.telon.testtdf') shr
```

In addition, you should add a TSO command to the end of your APT CLIST to deallocate the TDF:

```
free f(testtdf)
```

You must make sure that the ddname and dsname match those specified for the test TDF in the Library Code definition.

After you have set up the allocation for the appropriate TDF, you can modify the Library Code definition.

If you modify a user's LOGON PROC, that user must logon again before the change is effective. Similarly, if you modify the APT CLIST, users must exit CA-PanAPT and reenter to make the allocation changes effective. On the other hand, as soon as you update the Library Code definition, the changes are effective for all users.

After you have verified that the TDF is preallocated, you can change the Library Code definition to take advantage of the preallocation. On the Library Code Maintenance - General Info. panel, specify the Edit exit program name as **APAS0226** and the first 12 characters of the parameter as PREALLOCATED. If you specify PREALLOCATED but the TDF is not already allocated, the exit indicates that the member was not found and writes a message that the TDF could not be opened.

If you specify exit APAS0226 without a parameter, the exit allocates the TDF at the beginning of its processing and deallocates it at the end, regardless of whether the TDF has been allocated previously. If the TDF was preallocated and the exit attempts to allocate it again, the allocation fails and the exit indicates that the member was not found and writes a message that the TDF could not be allocated.

TDF to TDF

Member-existence Exit: APAS0226

APAS0226 verifies the existence of the CA-Telon TDF member. For further information on APAS0226, see Member Existence Exit under the section, CA-Telon Moves.

Library Code Specifications

The library specified in the Library Code for each level must be a TDF.

Library Codes that use APJMT2TD must specify that the From-name and To-name are equal.

TDF member names always must be eight characters long. APAS0226 requires the complete eight-character name. If you use APAS0226, specify the minimum length of a member name as eight characters.

If you do not use the member existence exit, the minimum length of a member name is six characters. If you specify only six characters, the model appends the two characters specified for DEFTYPE, see Model Specifications: APJMT2TD below.

The Library Code definition must specify that Inventory is enabled. Assignment options may or may not be enabled, as you choose.

Model Specifications: APJMT2TD

This model invokes the standard Export and Import procedures that are supplied as CA-Telon utilities.

Each of the following parameters must be specified in the Library Code definition for every Library Code that uses the model.

DEFTYPE

CA-Telon definition type (SD, DR, BD, RD, or ND) as defined in CA-Telon.

ENV

CA-Telon program environment (T = TSO, I = IMS, C = CICS, B = batch).

FORMAT

Type of screen formatting required (M = IMSMFS, B = CICSBMS, N = CA-Telon-generated (for CICS only)).

RUNTYPE

Used for CA-Telon import processing, available for Releases 2.0C and above. I=Ignore any Data Administration in the TDF (Default), C=Compare Processing, and M=Compare/Merge Processing. The C and M processing is determined by the variable MAXSVR, that indicates the highest allowable security code. Details of this processing can be found in the *CA-Telon Programming Concepts Guide*.

PSB

Type of PSB to be generated (I = IMSPSB, D = DLIPSB, N = NONE).

For example, use the following specification:

```
DEFTYPE = 'SD'; ENV = 'I'; FORMAT= 'M'; PSB= 'N'; INCLUDE APJMT2TD
```

Customize model APJMLEAD for CA-Telon before using model APJMT2TD:

- Set keyword GTLN_QUAL to the CA-Telon load library specification for the TLNLOAD parameter of various CA-Telon supplied procs.

- Set keyword GTLN_SRCLIB to the data set name of a work PDS to use for imports and exports. This is supplied for the SRCLIB parameter of various CA-Telon supplied procs.

TDF to CA-Panvalet

Member-existence Exit: APAS0226

APAS0226 verifies the existence on the TEST-level TDF of the CA-Telon TDF member to move.

For further information on APAS0226, see Member Existence Exit under topic CA-Telon Moves, earlier in this chapter.

Library Code Specifications

The TEST-level library specified must be a TDF, but the target and backup libraries must be CA-Panvalet libraries.

Model APJMT2PV moves a TDF member from a TEST-level TDF to a member of a CA-Panvalet library. Model APJMPANV moves the member from one CA-Panvalet library to another.

Specify that the member names must be equal for the to and from members in the Library Code.

TDF member names are always eight characters, and APAS0226 requires the complete eight-character name. If you use APAS0226, specify the minimum length of a member name as eight characters.

The Library Code definition must specify that Inventory is enabled. Assignment options may or may not be enabled, as you choose.

Model Specifications: APJMT2PV

This model invokes the standard Export and Import procedures that are supplied as CA-Telon utilities.

Each of the following parameters must be specified in the Library Code definition for every Library Code that uses the model.

DEFTYPE

CA-Telon definition type (SD, DR, BD, RD, or ND) as defined in CA-Telon.

ENV

CA-Telon program environment (T=TSO, I=IMS, C=CICS, or B=batch).

FORMAT

Type of screen formatting required (M=IMSMFS, B=CICSBMS, or N=CA-Telon-generated (for CICS only)).

PSB

Type of PSB to generate (I=IMSPSB, D=DLIPSB, or N=NONE).

This model has been modified to support the CA-Panvalet version 14.1 LOCK/UNLOCK feature. Specify the value as **'Y'** or **'N'** (include the single quote marks). LOCK specifies whether CA-PanAPT unlocks the member in the Production or QA Library prior to moving members of the QA or Test Library. This feature cannot be used with CA-Panvalet releases prior to 14.1.

For example, use the following specification:

```
DEFTYPE='SD'; ENV='I'; FORMAT='M'; PSB='N'; LOCK='N';

IF <$ORIGDSN> = <$TESTDSN>; INC APJMT2PV;

ELSE; INCLUDE APJMPANV; ENDIF
```

One of two different models is included depending on the move time. At QA move time, the member is moved from the TDF to a CA-Panvalet library. When the member is moved from QA to PROD, it is moved from one CA-Panvalet library to another by the APJMPANV model. If you omit the QA level library, movement from TEST to PROD is done using the APJMT2PV model.

Customize model APJMLEAD for CA-Telon before using model APJMT2PV:

- Set keyword GTLN_QUAL to the CA-Telon load library specification for the TLNLOAD parameter of various CA-Telon supplied procs.
- Set keyword GTLN_PANLOAD to the data set name of your CA-Panvalet load library.

TDF to PDS Libraries

Member Existence Exit: APAS0226

APAS0226 verifies the existence on the Test level TDF of the CA-Telon TDF member to be moved.

For further information on APAS0226, see Member Existence Exit under topic CA-Telon Moves, earlier in this chapter.

Library Code Specifications

The TEST-level library specified must be a TDF, but the target and backup libraries must be PDS libraries. Model APJMT2PD moves a TDF member from a TEST-level TDF to a member of a PDS library. Model APJMPDS moves the member from one PDS library to another.

Specify that the member names must be equal for the to and from members in the Library Code.

TDF member names are always eight characters, and APAS0226 requires the complete eight-character name. If you use APAS0226, specify the minimum length of a member name as eight characters.

If you do not use the member existence exit, the minimum length of a member name is six characters. If you specify only six characters, the model appends the two characters specified for DEFTYPE, see Model Specifications: APJMT2PD below.

The Library Code definition must specify that Inventory is enabled. Assignment options may or may not be enabled, as you choose.

Model Specifications: APJMT2PD

This model invokes the standard Export and Import procedures that are supplied as CA-Telon utilities. Each of the following parameters must be specified in the Library Code definition for every Library Code that uses the model.

DEFTYPE

CA-Telon-definition type (SD, DR, BD, RD, or ND) as defined in CA-Telon.

ENV

CA-Telon program environment (T=TSO, I=IMS, C=CICS, or B=batch).

FORMAT

Type of screen formatting required (M=IMSMFS, B=CICSBMS, or N=CA-Telon-generated (for CICS only)).

PSB

Type of PSB to generate (I=IMSPSB, D=DLIPSB, or N=NONE).

For example, use the following specification:

```
DEFTYPE='SD'; ENV='I'; FORMAT='M'; PSB='N'

IF <$ORIGDSN> = <$TESTDSN>; INC APJMT2PD

ELSE; INCLUDE APJMPDS; ENDIF
```

One of two different models is included, depending on the move time. At QA move time, the member is moved from the TDF to a PDS library. When the member is moved from QA to PROD, it is moved from one PDS library to another by the APJMPDS model. If you omit the QA level library, movement from TEST to PROD is done using the APJMT2PD model.

Customize model APJMLEAD for CA-Telon before using model APJMT2PD. Within it, set keyword GTLN_QUAL to the CA-Telon load library specification for the TLNLOAD parameter of various CA-Telon supplied procs.

TDF to Executable Load Modules

Member Existence Exit: APAS0226

APAS0226 verifies the existence on the Test level TDF of the CA-Telon TDF member to be moved.

For further information on APAS0226, see Member Existence Exit under topic CA-Telon Moves, earlier in this chapter.

Library Code Specifications

APJMT2LL exports a TDF member from a TDF and generates, compiles and links it to a member of an executable load module library. The TEST-level library specified must be a TDF, but the target libraries must be load module libraries. The backup libraries are not supported.

Library Codes that use APJMT2LL must specify that the From-name and To-name fields are equal.

TDF member names are always eight characters, and APAS0226 requires the complete eight-character name. If you use APAS0226, specify the minimum length of a member name as eight characters.

If you do not use the member existence exit, the minimum length of a member name is six characters. If you specify only six characters, the model appends the two characters specified for DEFTYPE, see Model Specifications: APJMT2LL below.

Model APJMT2LL uses inventory fields to specify the language to select the CA-Telon generation proc and to specify the compile and link-edit options. Therefore, inventory must be enabled. Assignment options may or may not be enabled, according to your requirements.

You must designate specific values for the Language Type Inventory field. These values determine how the CA-Telon specifications are translated into an executable program. If you specify the values incorrectly:

- The model returns a message in keyword $MSG and sets a return code of 4 in $RC.
- Incorrect values cause job APJJ5320 to terminate.
- Also, translation JCL is generated that includes JCL comments indicating where the error was found.

Specify the Language field as follows:

Value	Compiler	Preprocessor
P	PL/I	

Value	Compiler	Preprocessor
2	LE/390 COBOL	
P2	PL/I	DB2
22	LE/390 COBOL	DB2

Model Specifications: APJMT2LL

This model invokes the standard Export and Import procedures that are supplied as CA-Telon utilities.

Each of the following parameters must be specified in the Library Code definition for every Library Code that uses the model.

DEFTYPE

CA-Telon definition type (SD, DR, BD, RD, or ND) as defined in CA-Telon.

ENV

CA-Telon program environment (T=TSO, I=IMS, C=CICS, or B=batch).

FORMAT

Type of screen formatting required (M=IMSMFS, B=CICSBMS, or N=CA-Telon generated (for CICS only)).

PSB

The type of PSB to generate (I=IMSPSB, D=DLIPSB, or N=NONE).

For example, use the following specification:

```
DEFTYPE='SD'; ENV='I'; FORMAT='M'; PSB='N'

IF <$ORIGDSN> = <$TESTDSN>; INC APJMT2LL

ELSE; INCLUDE APJMPDS; ENDIF
```

One of two different models is included, depending on the move time. At QA move time, the member is moved from the TDF to a load library (using CA-Telon extraction and generation procs). When the member is moved from QA to PROD, it is moved from one load library to another by the APJMPDS model. If you omit the QA level library, movement from TEST to PROD is done using the APJMT2LL model.

Customize model APJMLEAD for CA-Telon before using model APJMT2LL. Within it, set keyword GTLN_QUAL to the CA-Telon load library specification for the TLNLOAD parameter of various CA-Telon supplied procs.

Limitations and Restrictions

This model does not support deletion of the member from the source TDF.

TDF to TDF, Generate and Link to Load

Member-existence Exit: APAS0226

APAS0226 verifies the existence of the CA-Telon TDF member at the Test level.

For further information on APAS0226, see Member Existence Exit under the topic CA-Telon Moves earlier in this chapter.

Library Code Specifications

The library specified for each level must be a TDF, and Library Codes that use APJMTTDL must specify that the From-name and To-name fields are equal.

Model APJMTTDL moves a TDF member from a TEST-level TDF to a PROD-level TDF. Additionally, this model generates, compiles and links the TDF member to a member of an executable load module library. The keyword 'USRLOAD' must be specified in the Library Code to indicate the load module library for the link process.

TDF member names are always eight characters, and APAS0226 requires the complete eight-character name. If you use APAS0226, specify the minimum length of a member name as eight characters.

If you do not use the member existence exit, the minimum length of a member name is six characters. If you specify only six characters, the model appends the two characters specified for DEFTYPE, see Model Specifications: APJMTTDL below.

This model uses inventory fields to specify the language to select the CA-Telon-generation PROC and to specify the Compile and Link-Edit Options. Therefore, inventory must be enabled. Assignment options may or may not be enabled, according to your requirements.

You must indicate specific values for the Language Type Inventory field. These values determine how the CA-Telon specifications are translated into an executable program. If you specify the values incorrectly:

- The model returns a message in keyword $MSG and sets a return code of 4 in $RC.
- Incorrect values cause job APJJ5320 to terminate.
- Also, translation JCL is generated that includes JCL comments indicating where the error was found.

Specify the Language field as follows:

Value	Compiler	Preprocessor

Value	Compiler	Preprocessor
P	PL/I	
2	LE/390 COBOL	
P2	PL/I	DB2
22	LE/390 COBOL	DB2

Model Specifications: APJMTTDL

This model invokes:

- The standard Export and Import procedures that are supplied as CA-Telon utilities.
- The appropriate EXPORT, generate, compile, and link procedures based on environment.
- The language fields specified in the Inventory fields, see Library Code Specifications earlier in this chapter.

Specify each of the following parameters in the Library Code definition for every Library Code that uses the model.

DEFTYPE

CA-Telon definition type (SD, DR, BD, RD, or ND) as defined in CA-Telon.

ENV

CA-Telon program environment (T=TSO, I=IMS, C=CICS, or B=batch).

FORMAT

Type of screen formatting required (M=IMSMFS, B=CICSBMS, or N=CA-Telon generated (for CICS only)).

RUNTYPE

Used for CA-Telon-import processing, available for Releases 2.0C and above. I = Ignore any Data Administration in the TDF (Default), C = Compare Processing, and M = Compare/Merge Processing. The C and M processes are determined by the variable MAXSVR, which indicates the highest allowable security code. Details of this processing can be found in the *CA-Telon Programming Concepts Guide*.

PSB

Type of PSB to generate (I=IMSPSB, D=DLIPSB, or N=NONE).

USRLOAD

Keyword USRLOAD. USERLOAD must be specified in the Library Code to indicate the load module library for the LINK process.

For example, use the following specification:

```
DEFTYPE='SD';ENV='I';FORMAT='M';PSB='N'

USRLOAD='USER.LOAD'

INCLUDE APJMTTDL
```

APJMTTDL generates JCL to move the member from one TDF to another and to generate, compile, and link the CA-Telon source into a user load library.

Customize model APJMLEAD for CA-Telon before using model APJMTTDL:

- Set keyword GTLN_QUAL to the CA-Telon load library specification for the TLNLOAD parameter of various CA-Telon supplied procs.
- Set keyword GTLN_SRCLIB to the data set name of a work PDS to use for imports and exports. This is supplied for the SRCLIB parameter of various CA-Telon supplied procs.

TDF to CA-Panvalet, Generate and Link to Load

Member Existence Exit: APAS0226

APAS0226 verifies the existence on the TEST-level of the CA-Telon TDF member to be moved.

For further information on APAS0226, see Member Existence Exit under the topic CA-Telon Moves, earlier in this chapter.

Library Code Specifications

The TEST-level library specified must be a TDF, but the target and backup libraries must be CA-Panvalet libraries.

Model APJMTPVL moves a TDF member from a TEST-level TDF to a member of a CA-Panvalet library. Additionally, this model generates, compiles, and links the TDF member to a member of an executable load module library. The keyword 'USRLOAD' must be specified in the Library Code to indicate the load module library for the link process.

Specify that the member names must be equal for the to and from members in the Library Code.

TDF member names are always eight characters, and APAS0226 requires the complete eight-character name. If you use APAS0226, specify the minimum length of a member name as eight characters.

If you do not use the member existence exit, the minimum length of a member name is six characters. If you specify only six characters, the model appends the two characters specified for DEFTYPE, see Model Specifications: APJMTPVL below.

Inventory must be enabled because this model uses inventory fields to specify the language to select the CA-Telon generation proc and to specify the compile and link-edit options. Assignment options may or may not be enabled, according to your requirements.

You must indicate specific values for the Language Type Inventory field. These values determine how the CA-Telon specifications are translated into an executable program. If you specify the values incorrectly:

- The model returns a message in keyword $MSG and sets a return code of 4 in $RC.
- Incorrect values cause job APJJ5320 to terminate.
- Also, translation JCL is generated that includes JCL comments indicating where the error was found.

Specify the Language field as:

Value	Compiler	Preprocessor
P	PL/I	
2	LE/390 COBOL	
P2	PL/I	DB2
22	LE/390 COBOL	DB2

Model Specifications: APJMTPVL

This model invokes:

- The standard Export and Import procedures that are supplied as CA-Telon utilities.
- The appropriate EXPORT generate, compile, and link procedures based on the environment.
- The language fields specified in the Inventory fields.

Each of the following parameters must be specified in the Library Code definition for every Library Code that uses the model.

DEFTYPE

CA-Telon definition type (SD, DR, BD, RD, or ND).

ENV

CA-Telon program environment (T=TSO, I=IMS, C=CICS, or B=batch).

FORMAT

Type of screen formatting required (M=IMSMFS, B=CICSBMS, or N=CA-Telon-generated (for CICS only)).

PSB

Type of PSB to generate (I=IMSPSB, D=DLIPSB, or N=None).

USRLOAD

Keyword USRLOAD. USERLOAD must be specified in the Library Code to indicate the load module library for the link process.

This model has been modified to support the CA-Panvalet version 14.1 LOCK/UNLOCK feature. Specify the value as **'Y'** or **'N'** (include the single quote marks). LOCK specifies whether CA-PanAPT unlocks the member in the Production or QA Library prior to moving members of the QA or Test Library. This feature cannot be used with CA-Panvalet releases prior to 14.1.

For example, use the following specification:

```
DEFTYPE='SD';ENV='I';FORMAT='M';PSB='N';LOCK='N';
```

```
USRLOAD='USER.LOAD';IF <$ORIGDSN> = <$TESTDSN>;

INC APJMTPVL;ELSE; INCLUDE APJMPANV; ENDIF
```

One of two different models is included, depending on the move time. At QA move time, the member is moved from the TDF to a CA-Panvalet library. When the member is moved from QA to PROD, it is moved from one CA-Panvalet library to another by the APJMPANV model. If you omit the QA level library, movement from TEST to PROD is done using the APJMT2PV model. Additionally, a Library Code is required for the load module movement process, to indicate the load libraries. This Library Code must be specified in the Move Request.

Customize model APJMLEAD for CA-Telon before using model APJMTPVL:

- Set keyword GTLN_QUAL to the CA-Telon load library specification for the TLNLOAD parameter of various CA-Telon supplied procs.
- Set keyword GTLN_PANLOAD to the data set name of your CA-Panvalet load library.

TDF to PDS Libraries, Generate and Link to Load

Member Existence Exit: APAS0226

APAS0226 verifies the existence on Test-level TDF of the CA-Telon TDF member to be moved.

For further information on APAS0226, see Member Existence Exit earlier in this chapter.

Library Code Specifications

The TEST-level library specified must be a TDF, but the target and backup libraries can specify PDS libraries.

Model APJMTPDL moves a TDF member from a TEST-level TDF to a member of a PDS library. Model APJMPDS moves the member from one PDS library to another and generates, compiles, and links the member to a member of an executable load module library. The keyword 'USRLOAD' must be specified in the Library Code to indicate the load module library for the link process.

Specify that the member names must be equal for the to and from members in the Library Code.

TDF member names are always eight characters, and APAS0226 requires the complete eight-character name. If you use APAS0226, specify the minimum length of a member name as eight characters.

If you do not use the member existence exit, the minimum length of a member name is six characters. If you specify only six characters, the model appends the two characters specified for DEFTYPE, see Model Specifications: APJMTPDL below.

Inventory must be enabled because this model uses inventory fields to specify the language to select the CA-Telon generation proc and to specify the compile and link-edit options. Assignment options may or may not be enabled, according to your requirements.

You must indicate specific values for the Language Type Inventory field. These values determine how the CA-Telon specifications are translated into an executable program. If you specify the values incorrectly:

- The model returns a message in keyword $MSG and sets a return code of 4 in $RC.
- Incorrect values cause job APJJ5320 to terminate.
- Also, translation JCL is generated that includes JCL comments indicating where the error was found.

Your site procedures should *not* submit JCL if CA-PanAPT reports a modeling error.

Specify the Language field as follows:

Value	Compiler	Preprocessor
P	PL/I	
2	LE/390 COBOL	
P2	PL/I	DB2
22	LE/390 COBOL	DB2

Model Specifications: APJMTPDL

This model invokes:

- The standard Export and Import procedures that are supplied as CA-Telon utilities.
- The appropriate EXPORT generate, compile, and link procedures based on the environment.
- The language fields specified in the Inventory fields.

Each of the following parameters must be specified in the Library Code definition for every Library Code that uses the model.

DEFTYPE

CA-Telon definition type (SD, DR, BD, RD, or ND).

ENV

CA-Telon program environment (T=TSO, I=IMS, C=CICS, or B=batch).

FORMAT

Type of screen formatting required (M=IMSMFS, B=CICSBMS, or N=CA-Telon-generated (for CICS only)).

PSB

Type of PSB to be generated (I=IMSPSB, D=DLIPSB, or N=None).

USRLOAD

Keyword USRLOAD. USERLOAD must be specified in the Library Code to indicate the load module library for the link process.

This model has been modified to support the CA-Panvalet LOCK/UNLOCK feature. Specify the value as **'Y'** or **'N'** (include the single quote marks). LOCK specifies whether CA-PanAPT unlocks the member in the Production or QA Library prior to moving members of the QA or Test Library. This feature cannot be used with CA-Panvalet releases prior to 14.1.

For example, use the following specification:

```
DEFTYPE='SD';ENV='I';FORMAT='M';PDS='N';USRLOAD='USER.LOAD'
```

```
IF <$ORIGDSN> = <$TESTDSN>

INCLUDE APJMTPDL

ELSE

INCLUDE APJMPDS

ENDIF
```

One of two different models is included, depending on the move time. At QA move time, the member is moved from the TDF to a PDS library. When the member is moved from QA to PROD, it is moved from one PDS library to another by the APJMPDS model. If you omit the QA level library, movement from TEST to PROD is done using the APJMTPDL model. Additionally, a Library Code is required for the load module movement process, to indicate the load libraries. This Library Code must be specified in the Move Request.

Customize model APJMLEAD for CA-Telon before using model APJMTPDL. Within it, set keyword GTLN_QUAL to the CA-Telon load library specification for the TLNLOAD parameter of various CA-Telon supplied procs.

Compile JCL Moves

CA-PanAPT enables you to generate and submit compile JCL at the time a source member is moved. This can be done instead of, or more usually in addition to, the move of the source member.

Sample models are distributed to generate COBOL and assembly language compile JCL. These models are documented in the chapter "Modeling Facility," of the *CA-PanAPT Administrator Guide*. Use these models as a starting point for writing your own compile models.

Special Handling and Null Moves

CA-PanAPT provides two methods to track events outside the typical movement of applications while still using Move Requests. These can be used separately or combined to capitalize on the benefits of CA-PanAPT when implementing operating system changes, scheduling documentation updates, and coordinating external events, for instance. The methods described here are Special Handling Move Requests and null moves.

Special Handling Move Requests

Move Requests can be added to CA-PanAPT with the Special Handling Only field set to Y. These Special Handling Move Requests can have all of the descriptive data normally associated with any Move Request, but can not contain any members. Special Handling Move Requests require no approvals, but can be scheduled and moved along with other Move Requests in your daily move cycle. When selected and processed, the status of the Special Handling Move Request is upgraded, but no actual movement ever takes place.

Special Handling Move Requests are intended to serve as documentation for external events. No changes are ever required to Library Codes, models, or move JCL to begin using Special Handling Move Requests.

Null Moves

Non-Special Handling Move Requests can also be used to coordinate and track external events. In this case, members from a Library Code that specifies the model APJMNULL are added to your Move Requests to represent the events. For example, you might enter member names that identify documents that are to be updated along with the related application source code members. Approval requirements can be set in the Library Code so that Move Requests containing these members are approved by documentation personnel before being moved into QA or Production.

Model APJMNULL merely generates the appropriate posting records to indicate that processing is complete for the members from the Library Code. It does not actually move any members.

Memberexistence Exit

Because members from a Library Code intended for use with null moves do not specify actual members accessible on the computer system, no member-existent exit should be specified.

Model Specifications

This model causes posting information to be placed in member NULL# of the APJMDLO PDS.

```
INCLUDE APMNULL;
```

Online Library Guidelines

Scheduling the Production turnover for batch systems might be different than for online systems. The job, APJJ5320, that actually performs the Production moves is typically run daily. APJJ5320 should also run during a time when a System Administrator can immediately review the output from the moves.

This review of move output is frequently done during prime shift hours. For batch systems, this prime shift move of new programs for each application might be appropriate timing. For online systems, however, the timing might not be appropriate. The online systems might stay up late or run continuously.

Changes for the online transactions might not be appropriate until the next day. If new programs are moved into Production Libraries while the online systems are up, they might take effect immediately, or at least might take effect after an online restart. Therefore, we recommend that the PROD set of CA-PanAPT libraries (primarily the load libraries) for online systems be next-day libraries or that a special Move Type be used for online Move Processing Cycles.

CA-PanAPT moves to the next-day libraries during prime shift. An additional job is scheduled daily to copy from the next-day libraries to the Production online libraries after the online terminates for that day's processing. Job APJJNEXT is supplied as a sample job to perform the next-day Prod moves to online libraries.

You can include this processing in the online JCL as part of start-up or shutdown. Alternatively, you can submit JCL similar to APJJNEXT from a model as external processing. Schedule the external processing job for a time appropriate to the target library.

This, or a similar technique, is suggested for any library type that has unique scheduling considerations.

Posting Member Status for External Processing

CA-PanAPT provides the ability to indicate the current processing state (status) for a member that requires some type of *external processing*, such as outside APJJ5320. Do this by executing PROC APJP5391 to indicate when processing starts and ends for a member.

The POSTTYP parameter in PROC APJP5391 controls the type of posting to be accomplished. To do this:

- Execute APJP5391 with the POSTTYP parameter set to S to post the beginning of external processing.
- After the steps have been completed, execute APJP5391 again with the POSTTYP parameter set to E to post the completion of external processing.

Be sure that condition codes from the processing steps ensure that external processing is successfully completed before posting the completion status. Note that no other values of the POSTTYP parameter should be used outside the normal processing cycle (APJJ5310, APJJ5320).

Using PROC APJP5391 this way, lets CA-PanAPT track the correct status of all members during the external processing phase of a Move Request.

When you use APJP5391 for external processing, do not specify the OUTPOST parameter, leave it blank. Also, override the APTINPUT DD statement, placing a control record behind it, as shown below:

COLUMNS

1-6	Move Request number, zero filled
7-8	Blank
9-12	Library Code
13-15	Library SubCode
16-25	Member Name ($TONAME) left justified

The following statements can be used in a model to create a control statement for external posting.

```
<$MR>     !$LIBC>    !
              !$LIBSUBC>    !
```

```
!$TONAME>
```

The modeling keywords and their starting columns are:

Keyword	Description	Starting Column
$MR	Move Request number	1
$LIBC	Library Code	9
$LIBSUBC	Library Subcode	13
$TONAME	Member TONAME	16

For an explanation of anchoring keywords in specific columns, see the Model Data Statements topic in Chapter 4, "Modeling Facility," in the *CA-PanAPT Administrator Guide*.

The CA-PanAPT modeling facility provides external processing models to perform and post external processing as described above. You can also create your own models.

For a detailed explanation of coding the parameters for PROC APJP5391, see the "Batch Component" chapter.

APJP5391 executes program APCS5391. This program sets a condition code of 0 to indicate successful action, or it ABENDs.

Chapter 7: Retrieve Processing

This section contains the following topics:

About Retrieve Processing (see page 335)
Types of Retrieve Processing (see page 335)
Accessing the Retrieve Processing Options Panel (see page 338)

About Retrieve Processing

CA-PanAPT provides a Retrieve function that copies members to the appro\-priate test libraries after they have been successfully Assigned. Before using the Retrieve function, modify the Library Codes to contain the proper Retrieve Model Specifications. See your CA-PanAPT System Administrator for more details.

Retrieve processing occurs:

- At the conclusion of RET (Assign and Retrieve) processing from the Inventory File Maintenance - Entry panel, APIP600, Inventory Maintenance MSL Entry panel, APIP650, or the Inventory Member List panel, APIP630.
- At the conclusion of the Auto Assign function from the Member Moves panel, APIP140, when Auto Retrieve is enabled for the Library Codes of the Auto Assigned members.

Types of Retrieve Processing

There are two phases to Retrieve processing:

- Online Retrieve processing
- Batch Retrieve processing.

Online Retrieve Processing

You can access Retrieve processing *explicitly* through the Inventory File Maintenance - Entry panel, APIP600, action of RET (Assign and Retrieve).

You can access Retrieve processing *implicitly* through the Move Request Maintenance panel, APIP100, actions of ADD and CHG (change), if the Library Code has Auto Assignment and Auto Retrieve enabled. When you process with this option, CA-PanAPT displays the Retrieve Pro\-cessing Option panel, APIP710, to let you specify the Retrieve options on an individual member basis.

You can select the following Retrieve options:

- The move level from which the member is to be copied (for example, QA or PROD).
- Whether to copy the member from the primary, Back Up, or Back Out library.
- The name of the member when it is copied to the starting test library.

  Whether CA-PanAPT should overwrite a member if it already exists in the starting test library.

You can also override the jobcard specifications that are used for the batch execution of the copy utilities.

After CA-PanAPT collects your Retrieve specifications, it generates a Retr\-ieve (batch) job stream online through foreground execution of the CA-PanAPT Modeling facility. A Retrieve Model generates the appropriate copy utility JCL and control statements for an individual member. A Retrieve job stream structure contains:

- A jobcard generated from the Job Statement fields of the Retrieve Processing Options panel, APIP710.
- An appropriate copy utility STEP for each member generated by the associated Retrieve model.
- An Optional NOTIFY message utility that follows the copy utility STEP used to report the success or failure of Retrieve processing on an individual member basis.

The Modeling processing output is written to the Internal Reader or sub\-mitted through TSO services depending on the system Control File specification.

OS/390has a 255-step limit for each job submitted. This limits the number of members you Retrieve in a single job. CA-PanAPT breaks your Retrieves into multiple jobs if enough members are Retrieved, to avoid 255 job steps. This is based on the number of steps in the Retrieve models distributed by CA-PanAPT. Your own models might have more steps, allowing for fewer Retrieves in a job. If this turns out to be the case, you can change the number of Retrieves that are grouped together by having your systems administrator adjust the value of the CHKOLMT variable in panel APIP710.

Batch Retrieve Processing

Batch Retrieve processing only requires that you execute the appropriate utilities to perform the module copies and NOTIFY message processing. The job submitted by online Retrieve does this.

Accessing the Retrieve Processing Options Panel

The Retrieve Processing Options panel, APIP710, displays:

- After the Inventory File Maintenance - Entry panel, APIP600, for Inventory File Maintenance Assignment actions ASN or RET for single members.
- After the Inventory Maintenance MSL Entry panel, APIP650, for Inventory File Maintenance Assignment actions A (assign) or R (assign and retrieve).
- After the Multiple Member Assign Processing panel, APIP630, for Inventory File Maintenance Assignment actions ASN or RET for multi\-ple members.
- After the Member Moves panel, APIP140, for AUTO Retrieve at the conclusion of Move Request member specifications.

Use this panel to specify Retrieve options on an individual member basis. This panel displays all members successfully assigned in the From Member column on the panel table display. Each member line has default Retrieve options that you can modify. You can scroll the member table when more than ten members are being processed by Retrieve.

If the Retrieve takes place during Move Request Maintenance, the fields on this panel are filled in as follows:

- The From Member and From Data for Retrieve are taken from the To Destination Lvls Member and User-data fields on the Member Moves panel.
- The To Member and To Data for Retrieve are the same as the From Starting Level Member and User-data fields on the Member Moves panel.

If the Retrieve occurs during Inventory File Maintenance, the From Member and To Member fields contain the name of the member being processed, and the Data fields are blank.

Panel Field Descriptions

Enter JOB Statements

Required. Length: 1-72. Type: character, uppercase.

Four lines allow you to change the JOB statements that CA-PanAPT uses for the generated Retrieve job stream. These lines are saved in the user's profile and used for future processing. You must supply at least the first JOB statement. Blank lines are ignored. These JOB statements are the same as those used by Verification Procedures.

Number of Members per Job

Optional. Length: 1-2. Type: numeric.

If you want to limit the number of members grouped together per job, specify the value here. If left blank, the default is 31 members per job. If you experience system 322 abends (too much CPU time) when retrieving multiple members, reducing this value can correct this.

From Lvl

Required. Length: 1-4. Type: alphabetic.

Specify the move level of the library the requested (from) member is to be copied from. Specify this as that level's short name, as defined to the Control file. Only levels used by the member's Library Code can be chosen. This field is filled in for you automatically. CA-PanAPT searches from the Development Test level up through your highest migration level looking for the member and supplies the first level that it finds for the member. If the member is not found, the level is blank, and the Checkout From Type value is ADD.

If CA-PanAPT cannot search for the member because its access method does not have a browse exit defined, the highest active level defined to the Library Code is filled in. A blinking asterisk appears to the right of the level to indicate this.

From Type

Optional. Type: alphabetic.

This field is used to specify that the member is to be copied from the From Lvl's Backup or Backout library, instead of its primary library. A value of BKUP, BU, or U indicates that the Back Up library is the origin of the Retrieve. A value of BKOT, BO, or O indicates that the Back Out library is the origin. If left blank, the primary library is used. You cannot choose a Back Out library for a level that does not support Back Out, and you cannot choose a Back Up library for a level that does not have Back Up enabled.

You can also specify a value of ADD indicating that you are adding a new member. When you specify ADD, the From Lvl field must be blank. Only specify ADD if your Retrieve models support it. They must add a prototype member to the test library. The distributed PDS, CA-Panvalet, and CA-Librarian Retrieve models all support this.

From Member

Display only. This field displays the name of the requested member to be used for the Copy utility. The name is the same as the member that was successfully Assigned. You cannot modify this field.

From Data

Optional. Length: 1-8. Type: alphanumeric or blank.

There are eight characters to pass data to the Retrieve Model. You can access the value of this field through the $FROMDATA System Model variable. The default value is null (" ").

To Member

Optional. Length: 1-10. Type: alphanumeric.

This field contains the name of the copied member in the starting level test library. This field defaults to the From Member value, but you can modify it to any other name. The To Member must not exist already in the starting level library unless the Replace Member option (see below) is also selected. If it exists already and you specify N for the Replace Member option, the Retrieve Job fails. The name specified as the To Member must be a valid length, as specified in the Library Code under Member Name Lengths Allowed.

To Data

Optional. Length: 1-8. Type: alphanumeric.

There are eight characters to pass data to the Retrieve Model. You can access the value of this field through the $TODATA System Model variable. The default value is null (" ").

Replace Member

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No).

This field determines if an existing member on the starting level test library that has the To Member name should be overwritten (replaced). Enter a value of Y to allow replacement. Enter a value of N to prevent replacement. The default value is N.

Important! Any Retrieve Model that implements the Replace Member option by a DELETE of the member from the starting level library, or a COPY (ADD) of the member to the starting level library, runs the risk of destroying the member in the event that the From Library does not already contain the member.

Library Code

Display only. Length: 1-7. Type: alphanumeric.

This field displays the Library Code associated with the member.

Final Panel Processing

When you have selected the appropriate Retrieve options, type S on the Command line and press ENTER. CA-PanAPT begins foreground generation of the Retrieve job stream(s), which is submitted for background execution.

Note: If you press a PF key, such as PF7 or PF8, with an S on the Command line, the Retrieve job is submitted.

When the foreground Retrieve job stream generation is complete, you return to the Inventory File Maintenance - Entry panel.

Discontinue Processing

If you decide to abort the Retrieve process, enter the END command (PF3). Members assigned remain assigned, but no members are copied between libraries.

Chapter 8: Daily Processing

This section contains the following topics:

About Daily Processing (see page 343)
Daily Move Request Processing (see page 344)
Move Request Processing (see page 345)

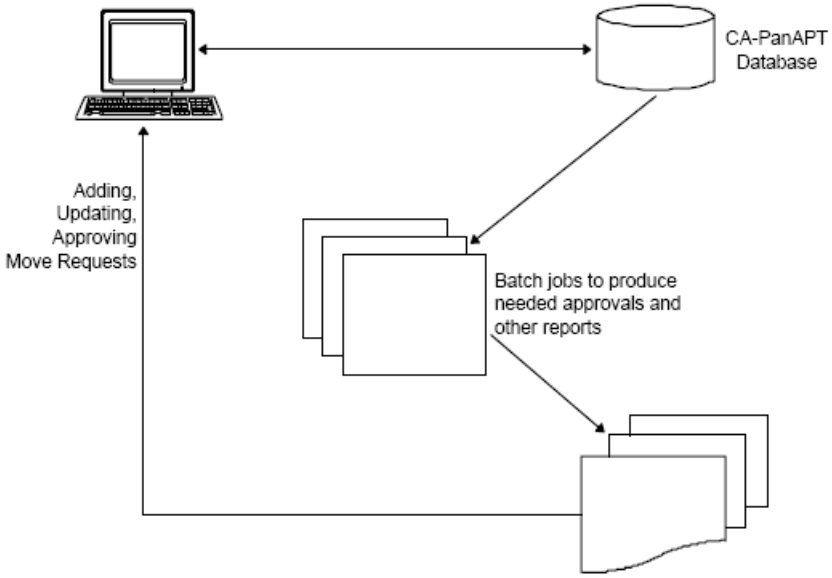
About Daily Processing

The designated CA-PanAPT Administrator is involved in defining and using CA-PanAPT panels to establish CA-PanAPT security, the CA-PanAPT Library Codes, and the CA-PanAPT Inventory Records. After these are set up, the major daily usage processing for the system is to create, modify, review, and approve Move Requests.

The following topics describe the suggested procedures for your daily CA-PanAPT processing. The way that you use CA-PanAPT at your site might differ to accommodate your specific needs.

Daily Move Request Processing

The creation, modification, review, and approval of Move Requests is all done by means of the CA-PanAPT online system (as shown in the following diagram). The CA-PanAPT reports produced by APJJ5111 are central to the daily processing.



In addition, CA-PanAPT provides many reports that can be used to review daily processing or to establish daily procedures.

APJJ5111 produces reports showing Move Requests that are awaiting online Approvals.

There are three APJJ5111 reports and they are intended for three different purposes.

APCS5111-01

Lists all Move Requests that are scheduled to move sometime in the future. This should go to the user responsible for the daily operation of CA-PanAPT. The intended use is to provide a way to monitor upcoming moves, including those that have not yet been closed or approved.

APCS5111-02

Lists all Move Requests that are closed and require one or more approvals. This report should go to the user responsible for daily operation of CA-PanAPT.

APCS5111-03

Lists all Move Requests that are closed and require approvals. It is broken down by Approval category so it can be split apart and routed to the approvers as a reminder. These reports can be distributed to CA-PanAPT users who are responsible for granting Approvals to notify them of required activity.

Move Request Processing

Move Request processing is done in two parts:

- Part One - Move Request Selection Process
- Part Two - Move Request Modeling.

Detailed descriptions of each process are described below.

Move Request Selection

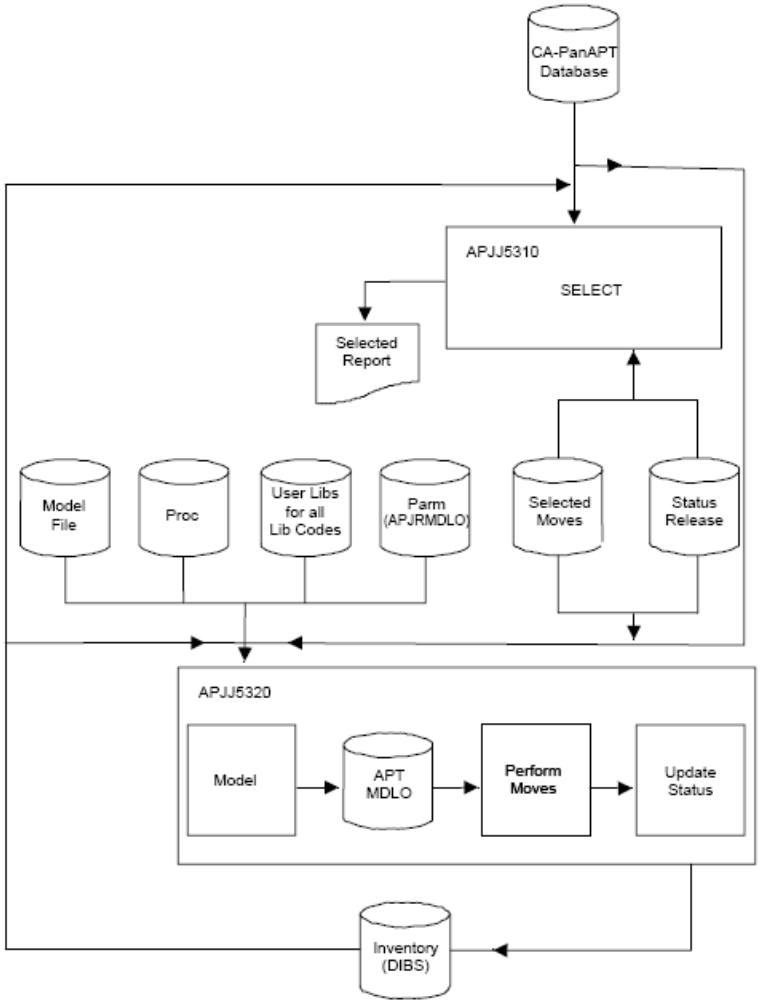
Part one of the CA-PanAPT Move Request processing is the Selection process. APJJ5310 is a batch job that selects Move Requests eligible to be moved or to be backed out. All selected Move Requests should be approved and have a scheduled Move Date of today or before today. APJJ5310 optionally restricts the selection to Move Requests that belong to specific move cycles. These move cycles are defined by the move type.

By default, if the same member is found on more than one selected Move Request, APCS5310 ABENDs, and a report is produced showing the members in question. If this happens, you must delete the member from all but one Move Request or prevent all but one of these Move Requests from being selected, and then rerun APJJ5310. You cannot continue Move Processing without correcting this situation or changing a parameter in APJJ5310 to ignore this condition.

This job produces a cataloged file that contains one record for each entity in each Move Request to be processed. It also produces a report showing what Move Requests are included in this move cycle. The person responsible for daily operation of CA-PanAPT should review this report to validate not only that all Move Requests should be included on the report but also to ensure that no extraneous Move Requests are included.

If any corrections should be made, (for example, if a Move Request should be included, but still has Approvals outstanding) use the CA-PanAPT online system to update the Move Request as needed, and rerun the APJJ5310 job to reselect Move Requests. (See the previous diagram and the diagram shown next.)

Note: If you only want to process some of the Move Requests selected by APJJ5310, use APJJ5311. See the "Batch Component" chapter for details on how to run the APJJ5311 job.


CA-PanAPT Database
APJJ5310
SELECT
Selected Report
Model File
Proc
User Libs for all Lib Codes
Parm (APJRMDLO)
Selected Moves
Status Release
APJJ5320
Model
APT MDLO
Perform Moves
Update Status
Inventory (DIBS)

Move Request Modeling

Part two of the CA-PanAPT Move Request processing is generation of the move JCL from the Models. This is done by job APJJ5320, which reads the cataloged file created by the Select Job APJJ5310 and, using the CA-PanAPT Models, generates the necessary JCL and control statements to process the entities in each selected Move Request. The generated job streams can then be scheduled and run according to your site's requirements (see the two diagrams shown earlier).

Note: The CA-PanAPT Batch Move process is normally scheduled and runs at regular times.

For instance, your site might choose to perform the Selection process (APJJ5310) every day at 1:00 p.m. The actual Moves (APJJ5320) could be done every day at 4:00 p.m. The reports from the Selection process should be reviewed, and if corrections are necessary, they would be made, and the Selection process could be rerun before APJJ5320 runs.

The distributed JCL for APJJ5320 submits the generated JCL immediately after performing the modeling.

APJJ5320 Flow

APJJ5320 reads the cataloged file of moves passed from APJJ5310, sorts it, and uses the CA-PanAPT Modeling Facility to create the necessary JCL and control statements to perform the moves. APJJ5320 then executes PROC APJP5391 to initialize the status of each member of each Move Request. A status of E means that a model indicates that the member requires external processing (external to APJJ5320). A status of M means that the member is to be moved as part of APJJ5320. Either or both E and M can be set for a member. APJJ5320 then executes proc APJP5391 again to post the completion of any null moves you might have. Finally, APJJ5320 executes proc APJP5905 to submit the generated move job.

As the generated move job runs, APJP5391 posting steps are executed to update the status of the selected Move Requests. The statuses your selected Move Requests are in during or upon completion of the generate move job follow. These statuses contain the move level to which they pertain. This is indicated by the word *level* for the full status name and by the letter *l* for the short status code; *level* contains the 1 to 4 character short name for the level, and *l* contains the 1 to 2 character abbreviation for the level.

AM*l*

Awaiting *level* Moves. The Move Request is being moved. External processing might be required for some members.

AM*l*-B

Awaiting *level* Bkot. The Move Request is being backed out. External processing might be required for some members.

The Move Request status is not changed again until all members to be moved in APJJ5320 have been moved successfully. When all members in the Move Request have had their M flags removed, APCS5391 changes the Move Request status.

If external processing is required, the Move Request status is set to:

AE*l*

Awaiting *level* EP. All moves are complete for the Move Request, but some of the members require external processing that is not complete. Some members have E flags (external processing is required) or S flags (external processing has started), but all M flags have been removed.

AE*l*-B

Awaiting *level* Bkot EP. All back out moves are complete for the Move Request, but some of the members require external processing that is not complete. Some members have E flags (external processing is required) or S flags (external processing has started), but all M flags have been removed.

When all processing for the Move Request is complete (all M, E, and S flags have been removed from the members), the Move Request status is set to:

AW*l*

Awaiting *level* App. The Move Request has been moved, and any external processing is complete. Some of the members required approvals or verifications for the next move level. The final move date has been propagated to the next move date field and should be reviewed.

AP*l*

Approved for *level*. The Move Request has been moved, and any external processing is complete. None of the members require approvals or verifications for the next move level, so the Move Request is eligible to be moved again on its new move date. The final move date has been propagated to the next move date field and should be reviewed.

MVl

Moved to *level*. The Move Request has been moved and there are no subsequent levels to be moved to. Processing is complete for this Move Request. The members of this Move Request are (or are at the end of the move job if still running) released or reassigned to other Move Requests. If they were reassigned, their assigned-to users might change, depending on the value of the Reassign/Transfer flag in the Control File. For more information, see "Reassign/Release Processing" in the "Move Requests" chapter.

MV*l*-B

level Bkot Complete. The Move Request has been backed out. Processing is complete for this Move Request.

If processing for a Library Code did not complete normally, none of the members for that Library Code are posted as complete. You must review the execution of the steps for that Library Code in the listing of the move job.

At the end of APJJ5320, the generated move job proc APJP5395 produces several summary reports and updates the status of all Special Handling Move Requests to MV*l* (Moved to *level*). Note that Special Handling Move Requests have no members to move, so they are not updated by any of the member processing steps. The reports are:

APCS5395-01

Lists the status of each Move Request that was originally selected.

APCS5395-02

Lists the Library Codes for processing that did not complete normally (according to the return codes in the JCL).

Chapter 9: Batch Component

The Batch component of CA-PanAPT consists of several programs, cataloged procedures, and JCL. Schedule and submit batch jobs according to your site-defined schedule and following site standards. As part of the initial implementation, customize the execution JCL to fit your site standards. Except as noted in the *CA-PanAPT Administrator Guide,* do not change any cataloged procedures.

This section contains the following topics:

Overview of Batch Jobs (see page 353)
Reporting Jobs (see page 357)
Move Request Processing Jobs (see page 375)
Restart Procedures for Move Jobs (see page 395)

Overview of Batch Jobs

This chapter is structured around three kinds of CA-PanAPT jobs including:

- Reporting jobs
- Move Request Processing jobs
- File Maintenance jobs.

Reporting Jobs

The following jobs print CA-PanAPT reports:

Job Name	Description Report Number/Title
APJJ5101	Print a Move Request Report
	APCS5101-01 - Move Request Form

Job Name	Description Report Number/Title
APJJ5102	Print the Library Code File Reports APCS5102-01 - Library Code File - Abbreviated Listing APCS5102-02 - Detail Report
APJJ5103	Print the Control File Report APCS5103-01 - Control File - Activities/System Information/Userids
APJJ5104	Print the Approval Category Cross-Reference Report APCS5104-01 - Approval Category Cross-Reference
APJJ5105	Print the Group Category Cross-Reference Report APCS5105-01 - Group Category Cross-Reference
APJJ5111	Print the Pending Move Requests Reports APCS5111-01 - Pending Moves - by Move Date APCS5111-02 - Move Requests Needing Approval - All Approvers APCS5111-03 - Move Requests Needing Approval (in order by Approval Category Number)
APJJ5112	Print the Module History Reports APCS5112-01 - Move History by Module
APJJ5930	Print the Data Set Freespace Report APCS5930-00 - Execution Log and Error Report APAS5930-01 - Data Set Freespace Report
APJJ6111	Print the Inventory Reports APCS6111-01 - Inventory Report
APJJ6113	Print the Inventory File Edit Report APCS6113-01 - Edit Report - Library Code/Inventory File/Pending File

Move Request Processing Jobs

The following jobs perform the actual moves:

Job Name	Description Report Number/Title
APJJ5310	Select eligible Move Requests APCS5310-01 — Summary APCS5310-02 — Release Exception report APCS5310-03 — Member Exception report APCS5310-04 — Duplicate Members in the Move Cycle APCS5391-01 — Move Request Status Changes
APJJ5311	Select Move Requests for a special run (same as APJJ5310 but with different selection criteria)
APJJ5320	Produce Today's Moves APCS5320-01 — Print Moves in order by Library Code APCS5320-02 — Model Processing Errors APCS5391-01 — Move Request Status Changes - New Status APCS5395-01 — Move Processing Summary APCS5395-02 — Move Processing Exceptions APCS6390-01 — Update Inventory File - Release members APAS5323-01 — Member Update Log APAS5395-03 — Move Request Status Changes for Special Handling Moves APAS5900-01 — PDS Members Being Deleted

File Maintenance Jobs

The following jobs perform CA-PanAPT File Maintenance:

Job Name	Description Report Number/Title
APJJBKUP	Backup the CA-PanAPT System files to GDG tape or to another archive medium.
APJJREST	Restore the CA-PanAPT System files from the GDG backup tape or from another archive medium.
APJJINIT	Delete and reallocate the BKUP libraries.

Job Name	Description Report Number/Title
APJJNEXT	Move next-day members to production; then delete and reallocate the next-day libraries.
APJJ5950	Delete Move Requests from the Pending File and add these Move Request records to the History File. Input is an APTSYSIN file containing Move Request selection criteria. APCS5950-00 - Execution Log APCS5950-01 - Pending File Purge Exception Report APCS5950-02 - Pending File Purge Exception Report
APJJ5955	Delete Move Requests from the History File and add these Move Requests to a sequential data set. Input is an APTSYSIN file containing Move Request selection criteria. Record layouts of the output sequential files are supplied. This job also has the capability to select Move Requests from the History File to the sequential file without deleting them from the History File. APCS5955-00 - Execution Log APCS5955-01 - History File Purge Selection Report APCS5955-02 - History File Purge Exception Report
APJJ5960	Reads the Batch Add-Move-Request file's input records, creates a Move Request with information from the records, and adds the new Move Request to the Pending File. APCS5960 - Add-Move-Request records - Create Move Request and Add to Pending File.
APJJ6910	Create a file to load the inventory (APTDIBS) file. Input is a PDS, CA-Librarian, or CA-Panvalet directory. APCS6910-00 - Execution Log APCS6910-01 - Inventory Load Exception Report (for library type PDS/CA-Panvalet/CA-Librarian)
APJJ6920	Load the Inventory file using the file created in APJJ6910 or APJJ6930. APCS6920-00 - Execution Log APCS6920-01 - Inventory Creation Report APCS6920-02 - Inventory Creation Error Report
APJJ6930	Create a file to load the inventory file (APTDIBS). Input is the inventory file. Return code 0 = one or more records were selected. Return code 4 = no records were found meeting the specified selection criteria.

Reporting Jobs

The jobs described in this section are:

- Move Request Report
- Library Code File Reports
- Control File Reports
- Approval Category Cross-Reference Reports
- Group Cross-Reference Report
- Pending Move Request Reports
- Module History Reports
- Data Set Freespace Report
- Member Posting Checker
- Input File Edit Report.

Move Request Report

Purpose

Print Move Request Report APCS5101-01

Activity

Print a report showing detail for one requested Move Request using the CA-PanAPT Pending File and Library Code File.

Output

APCS5101-01 Move Request Form

JCL

APJJ5101 - Also provided as an ISPF skeleton APIK200 which is accessed from the Print a Move Request Form panel. For more information, see "Printing a Move Request" in the "Move Requests" chapters.

PROC

APJP5101 - Executed from APJJ5101 and APIC200

Program

APCS5101

PROC APJP5101

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
MOVEREQ=*x*	*x* must be a six-digit Move Request number. This is passed to the APCS5101 program.	none
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Note: A Move Request can also be printed from the online PRT action (see "Printing a Move Request" in the "Move Requests" chapter.).

Library Code File Reports

Purpose

Print Library Code File Reports.

Activity

Print reports showing all current Library Codes defined to CA-PanAPT using the Library Code File and the CA-PanAPT Control File.

Output

APCS5102-01 - Abbreviated Report, one line per Library Code.

APCS5102-02 - Detail Report, contains all of the Library Code information.

Both reports are alphabetized by Library Code.

JCL

APJJ5102

PROC

APJP5102

Program

APCS5102

PROC APJP5102

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none

Parameter	Description	Default in PROC
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Control File Reports

Purpose

Print Control File Reports.

Activity

Print reports showing system information, user security, and activity security using the CA-PanAPT Control File.

Output

APCS5103-01 - Part 1 - CA-PanAPT Activity Authorization
Part 2 - System Information
Part 3 - CA-PanAPT User Authorization.

JCL

APJJ5103

PROC

APJP5103

Program

APCS5103

PROC APJP5103

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Approval Category Cross-Reference Reports

Purpose

Print Approval Category Cross-Reference Report.

Activity

Print a report showing a cross-reference listing of Approval Categories, User ID, and Library Codes.

Output

APCS5104-01 - Approval Category Cross-Reference Report.

JCL

APJJ5104

PROC

APJP5104

Program

APCS5104

PROC APJP5104

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
SYSDA=*x*	*x* indicates the disk type.	SYSDA
SORTBLK=*x*	*x* indicates the number of blocks of sortwork area to allocate.	1050
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Group Cross-Reference Report

Purpose

Print Group Cross-Reference Report.

Activity

Print a report showing Users and Administrators in each Group and all the authorized activities for each group.

Output

APCS5105-01 - Group Cross-Reference Report.

JCL

APJJ5105

PROC

APJP5105

Program

APCS5105

PROC APJP5105

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
SYSDA=*x*	*x* indicates the disk type.	SYSDA
SORTBLK=*x*	*x* indicates the number of blocks of sortwork area to allocate.	1050
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Pending Move Request Reports

Purpose

Print Pending Move Request Reports.

Activity

Print reports showing Move Requests not yet approved for Move processing or awaiting Move processing.

Output

APCS5111-01 - Pending Moves, by Move Date.

APCS5111-02 - Move Requests Needing Approval, in order by Move Request number (all Approvers).

APCS5111-03 - Move Requests Needing Approval, in order by Approver Number.

JCL

APJJ5111

PROC

APJP5111

Program

APCS5111

PROC APJP5111

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
SYSDA=*x*	*x* indicates the disk type.	SYSDA
SORTBLK=*x*	*x* indicates the number of blocks of sortwork area to allocate.	1050
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*

Parameter	Description	Default in PROC
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Module History Reports

Purpose

Print Module History Reports.

Activity

Print reports showing historical activity by entity using user-entered selection criteria.

Output

APCS5112-01 - Move History by Module Report.

Report appears in order by member name in Library Code. Report content is customized by selection criteria.

JCL

APJJ5112

PROC

APJP5112

Program

APCS5112

PROC APJP5112

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
SYSDA=*x*	*x* indicates the disk type.	SYSDA
SORTBLK=*x*	*x* indicates the number of blocks of sortwork area to allocate.	1050
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Input Selection Criteria from DD APTSYSIN

You can optionally specify what members to include on the report. See the APJJ5112 JCLLIB member for details on which fields can be selected.

```
LIBCODE='LLLL/SSS'
TOMEM='xxxxxxxx'
FROMDATE='xxxxxx'
TODATE='xxxxxx'
```

Specify the FROMDATE and TODATE using the format in the Control File System Information.

Each keyword can be specified only once. If any keyword is encountered more than once, an error message is issued and the program abends.

Data Set Freespace Report

Purpose

Print a report that shows allocations for data sets associated with all CA-PanAPT Library Codes. Data sets that are under or over allocated are highlighted.

Optional data set names can be included in the report by using input selection criteria.

Activity

Produce a report using the CA-PanAPT Library Code File to determine the data sets that are associated with each Library Code. You can also include additional data sets in the report using the APTSYSIN file. Either the Library Code File or the APTSYSIN file can be omitted.

Output

APAS5930-00 - Execution Log and Error Report.

Shows a list of data sets that could not be allocated; therefore, CA-PanAPT processing errors might occur. Statistics are not included for these data sets.

APAS5930-01 - Data Set Freespace Report.

This report is sorted by data set name. The data set name is preceded by the Library Code that first references the data set name. An asterisk following a Library Code indicates that more than one Library Code uses this data set. The volume is included with the number of members present, when available. A flag (>>>>>) indicates that a data set is more than 75 percent full. Another flag (<<<<<) indicates that a data set is less than 10 percent full. The same flags are used to indicate that directory space is over or under allocated.

CA-Panvalet, CA-Panexec, and VSAM data sets show 100 percent usage with no directory and member information.

JCL

APJJ5930

PROC

APJP5930

Program

APAS5930

PROC APJP5930

Parameter	Description	Default in PROC
VSAMPFX=*x*	The value of *x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
JCLLIST=*x*	This value is a SYSOUT class and any other SYSOUT parameters. Utility messages, control totals, JCL, and so forth are routed to this destination.	*
REPORTS=*x*	This value is a SYSOUT class and any other SYSOUT parameters. Reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	This value is a SYSOUT class and any other SYSOUT parameters. Any SYSUDUMP output is routed to this destination.	*
MAXDSN=9	This value (99999) specifies the maximum number of data set names to be processed in this run. If the number is too small, the program abends with a code of U1000. If the number is too large, the requirement in REGION increases.	250

Input Selection Criteria from DD APTSYSIN

You can optionally specify additional data sets that you want to appear on the report. Put your selection criteria in the input stream after the APTSYSIN DD statement.

The input control statement should start in Column 1. The control statement starts with the keyword "DSN=" followed by desired data set name. Multiple statements can be included.

Member Posting Checker

Purpose

Print members that have not been posted as moved.

This can be useful when using multiple move processing jobs and you need to determine the outcome of pre-requisite jobs. For example, you wanted to make a link-edit job conditional based on the successful condition of a previous compile job.

Activity

APCS5392 reads the input file and checks each member name in the lists against the Pending File to verify that the member has been posted. If all members are posted, the return code is 0. If any member is not posted, the return code is set to 4.

Input

The file with the DDNAME 'MBRLIST' contains members to be checked. This file must be in the following format:

Columns	Data
1-6	Move Request Number
7-10	Library Code
11-13	Library Subcode

Columns	Data
14-23	Member Name
24-24	Short name of move level (modeling $DEST1SHORTNAME value)
28-28	M for moves, B for back outs, or blank for either
29-80	Reserved

Output

APCS5392 also produces a list of any members that were not posted as moved (see message APCS5392-01 in the *CA-PanAPT Messages Guide*). This is written to DDNAME SYSOUT. If all members are posted as moved (condition code 0), nothing is written to the SYSOUT file.

PROC

APJP5392

Program

APCS5392

PROC APJP5392

Parameter	Description	Default in PROC
VSAMPFX=*x*	The value of *x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
REPORTS=*x*	This value is a SYSOUT class and any other SYSOUT parameters. Reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	This value is a SYSOUT class and any other SYSOUT parameters. Any SYSUDUMP output is routed to this destination.	*

Inventory Reports

Purpose

Produce Inventory Report.

Activity

Reads the Inventory File and produces a report showing information for each member.

Output

Can be sorted by:

- Member in Libcodes by specifying Sort-by = 'LIBCODE'
- Libcode in Member by specifying Sort-by = 'MEMBER'
- Libcode in Member in Assign-to User ID by specifying Sort-by = 'ASSIGNED-TO'.

Can be either short or long form.

JCL

APJJ6111

PROC

APJP6111

Program

APCS6111

PROC APJP6111

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
SYSDA=*x*	*x* indicates the disk type.	SYSDA
SORTBLK=*x*	*x* indicates the number of blocks of sortwork area to allocate.	1050
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Input Selection Criteria from DD APTSYSIN

Specify the Member Selection Criteria Report format and sequence using the following keywords:

Note: Each keyword can be specified only once. If any keyword is encountered more than once, an error message is issued and the program abends.

Keyword	Value	Default
REPORT-FORM	'SHORT' or 'LONG'	'LONG'
SORT-BY	'MEMBER or 'ASSIGNED TO' or 'LIBCODE'	'LIBCODE'
LIBCODE	'LLLL/SSS'	
MEMBER	'xxxxxxxx'	
OWNER	'xxxxxxxx'	
ASSIGNED	'Y' or 'N'	
ASSIGNED-TO	'xxxxxxxx'	

Keyword	Value	Default
ASSIGNED-MR	'xxxxxx'	
LAST-REQUEST	'xxxxxx'	
APPROVED	'Y' or 'N'	
LANGUAGE	'xxxxxxxx'	
APPLICATION	'xxxxxxxx'	
ENVIRONMENT	'xxxxxxxx'	
USER0001	'xxxxxxxx'	
USER0002	'xxxxxxxx'	
USER0003	'xxxxxxxx'	
USER0004	'xxxxxxxx'	
USER0005	'xxxxxxxx'	
USER0006	'xxxxxxxxxxxxxxxx'	
USER0007	'xxxxxxxxxxxxxxxx'	
USER0008	'xxxxxxxxxxxxxxxx'	
USER0009	'xxxxxxxxxxxxxxxx'	
USER00010	'xxxxxxxxxxxxxxxx'	

Inventory File Edit Report

Purpose

Produce Inventory File Edit Report.

Activity

Reads the Inventory File, the Library Code File, and the Pending File and produces a report showing information for each member.

Output

APCS6113-01	Part 1 - Library Code Editing/Cross-Reference Part 2 - Inventory File Editing/Cross-Reference Part 3 - Pending File Editing/Cross-Reference.

JCL

APJJ6113

PROC

APJP6113

Program

APCS6113

PROC APJP6113

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control tables, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

Move Request Processing Jobs

The jobs described in this subject are:

- Select Eligible Move Requests (APJJ5310)
- Select Move Requests for a Special Run (APJJ5311)
- Process Selected Move Requests (APJJ5320).

Select Eligible Move Requests

Purpose

Select Eligible Move Requests for Processing. This job is normally followed by the Move Job APJJ5320.

Activity

This job determines which Move Requests have met all approvals, Move Date criteria, are in the correct Status, and are part of any requested Move cycles. The job creates files with information about selected Move Requests and members to be moved. These files are passed to the Move Job APJJ5320 to generate actual move job streams.

Output

Reports:

APCS5310-01 — Summary of Selected Moves
APCS5310-02 — Release Exception Report
APCS5310-03 — Member Exception Report
APCS5310-04 — Duplicate Members in the Move Cycle
APCS5391-01 — Move Request Status Changes

Files:

1. Cataloged file of selected Moves to be input to subsequent execution of APJJ5320.
2. Cataloged file of selected moves to be passed from APJP5310 PROC to APJP5391 PROC. Used to update Pending File to indicate that the Moves have been selected.
3. Cataloged file to pass to subsequent execution of APJP6390 to update Inventory File for Release Modules to move.

PROCS

APJP5310 and APJP5391

Programs

APCS5310 and APCS5391

PROC APJP5310

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated before the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	none
OTHRPFX=*x*	*x* is concatenated before the standard data set name for CA-PanAPT files. Change this to your site's high-level sequential index.	none

Parameter	Description	Default in PROC
MMPCCPFX=*x*	*x* is concatenated before the standard data set name for CA-PanAPT files and after the high-level sequential index that contains the control members for a Move Processing Cycle. *x* must be a 1 to 8 character standard IBM data set qualifier.	'M'
SYSDA=*x*	*x* indicates the disk type.	SYSDA
STATUS=*x*	*x* if specified must be an abbreviated Move Request status, such as 'APP' or a list of statuses, such as 'APP,SLP,APP-B,SLP-B', to be used as selection criteria. Only Move Requests in the specified statuses are selected. If no statuses are specified, then Move Requests are not selected by status, other than the requirement that Move Requests must be approved or selected for a move or back out.	
ST-OMIT=*x*	*x* if specified must be an abbreviated Move Request status, such as APQ or a list of statuses, such as APQ,SLQ,APQ-B,SLQ-B, to be used as omission selection criteria. Any Move Requests in the specified statuses are omitted from selection, even if they pass all other selection criteria. If no statuses are specified, then Move Requests are not omitted by status.	
MPC=*x*	*x* specifies a list from 1 to 36 characters that is used to select Move Requests for processing during this Move cycle. Code the list with the values that are used in the Move Type of a Move Request to control Move Processing Cycles.	'M'
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. SYSUDUMP output is routed to this destination.	*

Program APCS5310 Parameters

Program parameters can be specified through the parameter passed to program APCS5310 and/or optional file APTSYSIN. If you supply additional program parameters other than those which are specified via PROC parameters STATUS, ST-OMIT, and MCP, then supply them through the optional file APTSYSIN, rather than through the parameter. Otherwise, the PROC parameters STATUS, ST-OMIT, and MCP are ignored.

To specify program parameters through file APTSYSIN, add a DD statement for DD name APTSYSIN after the invocation of PROC APJP5310 in the JCL. If the APTSYSIN file resides on disk (instead of an instream file) it should contain 80-byte fixed length records. You can specify multiple records. You can also specify multiple selection criteria on each record, by separating them with a semicolon.

The program parameter keywords and syntax follows:

Keyword	Description
DATE="x/y/z"	Controls the date to which the next or final move dates of the Move Requests are compared. Today's date is the default. If you have to perform moves for a subsequent date, you can specify that date with this keyword, and selection acts as though it were actually that date. The date format is the same format as presented on the reports (MM/DD/YYYY, DD/MM/YYYY, or YYYY/MM/DD). If you specify only a two-digit year, the current century is used.
DESELECT-MISSING="x"	Controls how APJP5310 processes members being moved that do not exist. This does not pertain to members being backed out. When x is YES and a member existence exit cannot find a member, it reports the member is missing and the Move Request is bypassed from the selection process. When x is NO and a member is missing, processing is aborted. If this keyword is specified in both the OS parameter string passed to APCS5310, and in the APTSYSIN file, the value specified in APTSYSIN is used.

Keyword	Description
DUP="x"	Indicates whether duplicate members are allowed. Members are considered duplicates if they have the same destination member name and Library Code Inventory Qualifiers. The default is DUP="NO". When duplicate members are detected with DUP="NO", processing is aborted. DUP="YES" allows duplicate members. If this keyword is specified in both the OS parameter string passed to APCS5310, and in the APTSYSIN file, the value specified in APTSYSIN is used.
MPC="abc...xyz"	Specifies the Move Processing Cycles to use for a run. This is the same as the MPC= PROC parameter. If this keyword is specified in both the OS parameter string passed to APCS5310, and in the APTSYSIN file, the value specified in APTSYSIN is used.
MR="n,n,b:e"	This keyword enables you to select specific Move Request numbers or a range of Move Request numbers. A range is specified as b:e, where b is the beginning of the range, and e is the end of the range. Multiple values and ranges can be specified by separating them with commas, or by specifying the **MR** keyword more than once. Specifying this keyword can improve the performance of APJP5310, because it allows skip processing of the database, rather than reading all of the Move Request records. If you do not specify this keyword, then Move Request number values are not considered when selecting Move Requests.
MR-OMIT="n,n,b:e"	This is the opposite of the MR keyword. Any Move Requests with these Move Request number values are bypassed from selection, even if they pass all other selection criteria. Specifying this keyword can also improve the performance of the selection process, because it allows skip processing of the database. If this keyword is not specified, then Move Requests are not omitted by Move Request numbers.

Keyword	Description
SR="x,x,...x"	You can restrict the selection to Move Requests that have the listed Service Request values. More than one can be specified by either separating them with commas, or by specifying the **SR** keyword more than once. If you don't specify this keyword, then Service Request values are not considered when selecting Move Requests. **Note:** Because of the syntax of this keyword, you cannot specify a comma or a quotation mark as a character to select a Service Request.
SR-OMIT="x,x,...x"	This is the opposite of the SR keyword. Any Move Requests with these Service Request values are bypassed from selection, even if they pass all other selection criteria. If this keyword is not specified, then Move Requests are not omitted by Service Requests.
STATUS="xxx,xxx,...xxx"	This keyword enables you to select Move Requests by status. Multiple statuses can be selected by either separating them with commas, or by specifying the **STATUS** keyword more than once. This keyword is the same as the STATUS= PROC keyword.
STATUS-OMIT="xxx,xxx"	This is the opposite of the STATUS keyword, and is the same as the ST-OMIT PROC keyword.

PROC APJP5391

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT VSAM files. Change this to your site's high-level VSAM index.	none
OTHRPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level sequential index specified during the CA-PanAPT installation.	none
MMPCPFX=*x*	*x* is concatenated before the standard data set name or CA-PanAPT files and after the high-level sequential index that contains the control members for a Move Processing Cycle. *x* must be a 1 to 8 character standard IBM data set.	'M'

Parameter	Description	Default in PROC
POSTTYP=*x*	*x* must specify the type posting for the member to be accomplished. The value for *x* can be: 'I' Initial Posting for All Processing 'B' Begin move processing 'M' Post Move processing complete 'E' Post external processing complete 'S' Post external processing has started In job APJJ5310, POSTTYP is overridden to 'I'. Do not change this or erroneous posting occurs.	none
OUTPOST=*x*	*x* is control data for posting Move Request members that require external processing.	none
CCODE=*x*	If any previous condition codes exceed '*x*', APCS5391 is skipped. In job APJJ5310, CCODE is allowed to default. Do not change this or erroneous posting occurs.	0
JCLLIST=*x*	*x* must be a suitable SYSOUT class. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be a suitable SYSOUT class. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be a suitable SYSOUT class. Any SYSUDUMP output is routed to this destination.	*

Select Move Requests for a Special Run

Purpose

Select Eligible Move Requests for a special run for Processing. This job stream uses the same processing as Select Eligible Move Requests (APJJ5310) and must also be followed by the Move Job (APJJ5320).

The major difference is in the selection criteria. APJJ5311 creates a Selected file containing only Move Requests that are in a selected for move or backout status.

This job allows an authorized user to manually select the Move Requests to be moved for a special run of the Move Job (APJJ5320).

Follow this procedure:

1. Use the Status Change function to change the status of the Move Requests you need to move in a special run to a selected for move or backout status.
2. Run APJJ5311 to build the Selected Moves File. APJJ5311 includes in the new Selected Moves file only the Move Requests that are in a selected for move or backout status. Before submitting APJJ5311, review the STATUS and ST-OMIT parameters for the APJP5310 PROC. If you have changed the names of your move levels or have added any move levels, you might need to update the STATUS parameter.
3. Run APJJ5320 to perform the moves.

Activity

See Select Eligible Move Requests (APJJ5310).

Output

See Select Eligible Move Requests (APJJ5310).

JCL

See Select Eligible Move Requests (APJJ5310).

PROC

See Select Eligible Move Requests (APJJ5310).

Program

See Select Eligible Move Requests (APJJ5310).

Process Selected Move Requests

Purpose

1. Process Selected Moves file created by APJJ5310 or APJJ5311.
2. Perform Move Modeling for selected members.
3. Run JCL created by Move Modeling to perform the moves.
4. Update the move request status and inventory flags.
5. Perform Reassign/Release processing. See the "Move Requests" chapter for details.

Activity

Modeling is performed for each selected member. Models for each Library Code produce members in the Model Output library APTMDLO. To assure that all members contain information only from the current APJJ5320 run, the APTMDLO data set is deleted and reallocated each time APJJ5320 is executed.

Output

Report	Description
APCS5320-01	Today's Moves Sorted by Library Code
APCS5320-02	Model Processing Errors
APCS5323-01	Member List of Elements Updated in APTMDLO
APCS5391-01	Move Request Status Changes

Report	Description
APCS5395-01	Move Processing Summary
APCS5395-02	Move Processing Exceptions
APAS5395-03	Move Request Status Changes
APCS6390-01	Inventory Update Report

File	Description
APTMDLO	Recreated with each run.
APTMODEL	Models create control statements in members in APTDMLO.
APT5310.MOVES	Selected moves from APJJ5310
APT5310.STATUPD	Used to produce the Move Processing Summary and Exception report.
APT5310.DIBSUPD	Used by APCS6390 to update Inventory Assignment fields.
APTDB	CA-PanAPT Database

PROCS

APJP5320	Model processing.
APJP5391	Status Update for External Processing.
APJP5905	Submit Modeling output.
APJP5395	Produce Move Process Exception report.
APJP6390	Update Inventory Records.

Programs

APCS5320
APCS5391
APCS5905
APCS5395
APCS6390

PROC APJP5320

Parameter	Description	Default in PROC
SOFTPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level index for distributed software.	none
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT VSAM files. Change this to your site's high-level index for VSAM data sets.	none
OTHRPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT passed and temporary files. Change this to your site's high-level index for sequential CA-PanAPT data sets.	none
MMPCPFX=*x*	*x* is concatenated before the standard data set name for CA-PanAPT files and after the high-level sequential index that contains the control members for a Move Processing Cycle. *x* must be a 1 to 8 character standard IBM data set qualifier.	'M'
SORTBLK=*x*	*x* is the number of sortwork blocks.	1050
MDLOPR1=*x*	*x* is the number of primary space blocks for APTMDLO.	325
MDLOSEC=*x*	*x* is the number of secondary space blocks for APTMDLO.	50
MDLODIR=*x*	*x* is the number of directory blocks for APTMDLO.	100
SYSDA=*x*	*x* is the DASD unit name.	SYSDA
JCLLIST=*x*	*x* must be suitable to be included as a SYSOUT class. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included as a SYSOUT class. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be suitable to be included as a SYSOUT class. Any SYSUDUMP output is routed to this destination.	*

PROC APJP5391

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT VSAM files. Change this to your site's high-level VSAM index.	none
OTHRPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level sequential index specified during the CA-PanAPT installation.	none
MMPCPFX=*x*	*x* is concatenated before the standard data set name for CA-PanAPT files and after the high-level sequential index that contains the control members for a Move Processing Cycle. *x* must be a 1 to 8 character standard IBM data set qualifier.	'M'
POSTTYP=*x*	*x* must specify the type posting for the member to be accomplished. The value for *x* can be: 'I' Initial Posting for all Processing 'B' Begin Move Processing 'M' Post Move processing complete 'E' Post external processing complete 'S' Post external processing has started In job APJJ5320 POSTTYP is overridden to 'B'. Do not change this or erroneous posting might occur.	none
OUTPOST=*x*	This field is to control data for posting Move Request members that require processing.	none
CCODE=*x*	If any previous condition codes exceed '*x*', APCS5391 is skipped. In job APJJ5320, CCODE is allowed to default. Do not change this or erroneous posting might occur.	0
JCLLIST=*x*	*x* must be a suitable SYSOUT class. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be a suitable SYSOUT class. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be a suitable SYSOUT class. Any SYSUDUMP output is routed to this destination.	*

PROC APJP5395

This procedure is executed from the JCL created by modeling. It is positioned to execute after all the move steps are complete.

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT VSAM files. Change this to your site's high-level VSAM index.	none
OTHRPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level sequential index specified during the CA-PanAPT installation.	none
MMPCPFX=*x*	*x* is concatenated before the standard data set name for CA-PanAPT files and after the high-level sequential index that contains the control members for a Move Processing Cycle. *x* must be a 1 to 8 character standard IBM data set qualifier.	'M'
SYSDA=*x*	*x* indicates the disk type.	SYSDA
SORTBLK=*x*	*x* indicates the number of blocks of sortwork area to allocate.	1050
JCLLIST=*x*	*x* must be a suitable SYSOUT class. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be a suitable SYSOUT class. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*
DUMPS=*x*	*x* must be a suitable SYSOUT class. Any SYSUDUMP output is routed to this destination.	*

PROC APJP6390

A member's assignment is released when both of the following are true:

1. The member's Library Code specifies Auto Release
2. The Move Request the member belongs to is moved to its final move level (typically, your production level).

When a Move Request is moved to its final move level, APCS6390 checks the DIBSUPD file (a flat file created by APCS5310) to determine the members to release during the move cycle. However, APCS6390 does not verify if the Move Request is successful. Therefore, if the move fails, the members are released, because it has a record in the DIBSUPD file. For further information, see "Reassign/Release Processing" in the "Move Requests" chapter.

Parameter	Description	Default in PROC
VSAMPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level VSAM index.	None
OTHRPFX=*x*	*x* is concatenated ahead of the standard data set name for CA-PanAPT files. Change this to your site's high-level sequential index.	None
MMPCPFX=*x*	*x* is concatenated before the standard data set name for CA-PanAPT files and after the high-level sequential index that contains the control members for a Move Processing Cycle. *x* must be a 1 to 8 character standard IBM data set.	'M'
NEWOLD=*x*	Change values to old or new values. Valid values are NEW and OLD. If NEWOLD=OLD, the DD assignments of members and Last Moved by fields in the Inventory File equal their pre-APJJ5310 (old) states. If NEWOLD=NEW, the DD assignments of members and the Last Moved by fields in the Inventory File equal their post-APJJ5310 (new) states.	None
JCLLIST=*x*	*x* must be suitable to be included in SYSOUT=*x*. Utility messages, control totals, and so forth are routed to this destination.	*
REPORTS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Output reports are routed to this destination. Change this in the JCL to your site's standards.	*

Parameter	Description	Default in PROC
DUMPS=*x*	*x* must be suitable to be included in SYSOUT=*x*. Any SYSUDUMP output is routed to this destination.	*

PVREXX Parameters to Specify Global Defaults

Global defaults (for processing of all Library Codes) can be specified in file PVREXXIN. If used, this optional file must contain valid REXX statements. Each statement must be wholly contained on a line, it cannot span multiple lines.

To use a PVREXXIN file, specify a DD override for step APJP5423, file PVREXXIN. The example below is for an in-stream file:

```
//APJP5423.PVREXXIN  DD DATA,DLM='++'
Model="GDG.MODEL"
++                          End of file
```

These changes should be coded into APJMPANV so that it is generated in the move JCL.

Parameter	Description
PfUnit	Specifies the unit on which to store protection files. This should be a unit your shop uses for tapes. Default: provided in PARMLIB member APJR5423
PfDCB=x	Specifies DCB information to use with the output protection files. Values must be specified using the syntax for the APTALLOC command. Acceptable DCB keywords are RECFM (record format), BLKSIZE (block size), LRECL (logical record length), LIKE (like those of another specified data set), and USING (using those of another specified ddname). For example, to define a record format of undefined with a block size of 10000, specify: PfDCB="RECFM(U) BLKSIZE(10000)" Default: provided in PARMLIB member APJR5423

Parameter	Description
TMSParm=x	Specifies label information to use with output protection files. Values must be specified using the syntax for the APTALLOC command. Intended keywords are RETPD (retention period) and EXPDT (expiration date). For example, to define a retention period of 90 days, specify: TMSParm="RETPD(90)" To define an expiration date of December 31, 1999, specify: TMSParm="EXPDT(99365)" or TMSParm="EXPDT(1999/365)" Default: provided in PARMLIB member APJR5423
Model=x	Specifies a model data set name to be used as the GDG model for the output protection files. **If you are using protection files you must specify this parameter or embed a value in the APIR5423 procedure, or the allocation of the output protection files fail.** Default: provided in PARMLIB member APJR5423
PvVersion=x	Overrides the version of CA-Panvalet. If specified it must be in the form *vv.r*. where *vv* is the version and *r* is the release/refresh. Default: provided in PARMLIB member APJR5423 and in MODEL APJMPANV.
PvLoadDsn	Overrides the data set name of the CA-Panvalet load library. Default: provided in PARMLIB member APJRRDSN
APTLoadDsn	Overrides the data set name of the CA-PanAPT load library. Default: provided in PARMLIB member APJRRDSN
RestartGroup	Specifies the group name at which to resume during a restart. Do not specify this parameter unless you are performing a restart of APJP5423. If specified, designate the group name as reported on message APIR5423-03 in the previous run. Default: none

Parameter	Description
RestartStep	Specifies the logical step at which to resume during a restart. Do not specify this parameter unless you are performing a restart of APJP5423. If specified, it must be one of the steps listed in message APIR5423-21 in the previous run. Default: none
RestartMems	Specifies the ddname of a list of restart members to be used during the first step of a restart. Do not specify this parameter unless you are performing a restart and have created a restart member list. Default: none

Parameters to Specify Group Overrides

Members being moved from the same origin library to the same destination for the same Library code are grouped together. The group is given a name identical to the Model system keyword $OUTPFX. Group overrides can be specified for any group processed by the APIR5423 REXX procedure. The file name to hold them is the group name appended with the character "@". If used, this optional file must contain valid REXX statements. Each statement must be wholly contained on a line; it cannot span multiple lines.

To use a group override file, specify a DD in the job step processing the groups move with the appropriate file name. An example of an in-stream file for group name MQACICS is shown below:

```
//MQACICS   DD   *
Model="CICSPAN.GDG.MODEL"   /* GDG model for CICS Panvalet
backups */
/*
```

All of the variables specified in file PVREXXIN except RestartGroup can be overridden in the group override file.

There are many group variables provided in Model APJMPANV. All of them can be overridden in the group override file. The following list shows their names and where they were derived:

Parameter	Origin
PvVersion	Modeling keyword LPV_VERSION
GrpModelTime	Modeling keyword $MODELTIME
GrpOrigDdn	Modeling keyword $ORIGDDN
GrpOrigDsn	Modeling keyword $ORIGDSN
GrpOrigSec	Modeling keyword $ORIGSEC
GrpOrigPfDsn	Modeling keyword PF_<$ORIGDDN> which is initialized in the Modeling specifications
GrpDest1Ddn	Modeling keyword $DEST1DDN

Parameter	Origin
GrpDest1Dsn	Modeling keyword $DEST1DSN
GrpDest1Sec	Modeling keyword $DEST1SEC
GrpDest1PfDsn	Modeling keyword PF_<$DEST1DDN> which is initialized in the Modeling specifications
GrpDest2Ddn	Modeling keyword $DEST2DDN
GrpDest2Dsn	Modeling keyword $DEST2DSN
GrpDest2Sec	Modeling keyword $DEST2SEC
GrpDest2PfDsn	Modeling Keyword PF_<$DEST2DDN> which is initialized in the Modeling specifications
LcOptD1ToD2	Modeling keyword $OPTD1TOD2
LcOptOrigToD1	Modeling keyword $OPTORIGTOD1
LcOptOrigDel	Modeling keyword $OPTORIGDEL
TmsParm	Modeling keyword TMSPARM, the tape management parm data
PfUnit	Modeling keyword PFUNIT, the Protection file unit

Restart Procedures for APIR5423

As APIR5423 is running it writes messages out to the printer. These messages are key to determining what APIR5423 has done, and what is necessary to restart. To restart APIR5423 you might have to specify a PVREXXIN DD statement (if you don't have one already) and specify some combination of the RestartGroup, RestartStep, and RestartMems parameters.

Message APIR5423-03 is issued as each new group of moves begins processing (members are in the same group when they are for the same Library Code and being moved from the same origin to the same destination). The message contains a generated name associated with the group. Unless you were processing the first or only group at the time that APJP5423 stopped, you need to specify the last group name that was being processed with the RestartGroup parameter in the PVREXXIN file. For example, if you need to restart with group name MQACICS, specify: **RestartGroup="MQACICS"**.

Message APIR5423-21 is issued as each logical step begins. This message contains the name of the logical step. In file PVREXXIN you need to specify the name of the step you were last processing, unless APIR5423 stopped before the first logical step for the current group began (perhaps due to a problem with the RestartGroup parameters. For example, if you need to restart at step DEST1XFER, specify: **RestartStep="DEST1XFER"**.

Notes:

If you were in a step that deletes members to CA-Panvalet protection files and you received message APIR5423-16 (informing you to check the status of the output protection file) then you must first look at the PAN#2 output to determine if the protection file that was cataloged was written to. If it was not written to, then you need to scratch it before you restart.

If you were in a PAN#2 Library to Library transfer step and you are using a version of CA-Panvalet prior to 14.1, or your PVOPT default restore status is PROD, and some of the members were successfully transferred, then you need to create a restart member list. (A Library to Library step is when all the steps end in name XFER.) Otherwise, when the transfer step is restarted it fails because the members exist in the target library.

To use a restart member list:

1. Copy a member in the APTMDLO data set whose name is the group name appended with an M to another file. This file contains a record for each member being moved for this Library Code. The records contain REXX assignment statements. Variable TN is assigned to the To member name.
2. Edit this new file and delete the entries with TN names matching those that were successfully transferred.
3. Restart APIR5423 allocating this new file to any DDname you choose, and specify the DDname for the RestartMems parameter. This causes the first logical step of the restart (which should be overridden with the RestartStep parameter) to operate on a subset of the group of members being moved.

Restart Procedures for Move Jobs

This section explains how to restart the Move jobs, in the event that they fail. There are three groupings of Move jobs. Job APJJ5310 is run first to select the Move Requests for the Move Cycle. Job APJJ5320 is run next to generate the JCL to perform the moves. Upon completion APJJ5320 submits the first or only generate Move Job.

Job APJJ5310

To restart the APJJ5310 job, simply rerun the job from the beginning. If program APCS5391 of this job altered the status of any Move Requests from an Approved for Move status to a Selected for Move status, you might need to use the Move Request online status action to alter them back to the Approved for Move status. This is only necessary if there are Move Request status selection or omission criteria for the APJP5310 proc that would bypass Move Requests in a Selected for Move status. Typically this is not done.

Job APJJ5320

Restart for the APJJ5320 job depends upon how far it progressed. If the APJP5320 proc had not completed yet, you must rerun the job from the beginning. If it was in either PROC APJP5391 or APJPNULL you should restart at the step that failed.

If APJJ5320 was running the APJP5905 proc, you must check the JES queues to see if APJP5905 got far enough to submit a job. If so there is no need to restart because APJP5905 was effectively done when it failed. If it hadn't submitted a job, you should restart at the APJP5905 job step.

Generated Moved Jobs

JCL in the generated move job varies depending on your Models, but typically it can be grouped into three types. The first grouping contains the move steps themselves. These are the steps that actually move members from one library to another. Most of the Models distributed with CA-PanAPT generate restart instructions along with the move JCL in the form of comments. An exception to this is the CA-Panvalet REXX style move; its restart instructions are documented earlier in this section. Other exceptions are the CA-Telon moves that can be rerun from their beginning.

The move steps might submit an external processing job as the last step. External Processing is the second grouping. This is submitted using the APJP5905 procedure. Just as in the APJJ5320 job, you must check to see if APJP5905 actually submitted anything. If it did, then no restart is necessary. Otherwise you must restart at the APJP5905 job step.

The second grouping contains optional external processing job(s) that act on the members after they have been moved. These jobs typically are doing compiles and/or link edits. They do not have restart instructions included in them but usually can either be rerun or restarted at the first step of any moved member's external processing. You can have one external processing job, or one per moved member, depending on how your Models are set up. If you have multiple jobs, the last step in each job (except for the last job) is an execution of the APJP5905 procedure to submit the next job. Once again, you should only rerun the APJP5905 procedure if it failed to submit a job.

The third grouping contains the CA-PanAPT APJP5935 and APJP6390 procedures. These procedures include the final steps of the last external processing job or, if there is no external processing, the final steps of the member movement job. APJP5935 produces reports showing the outcome of the move. It also posts any Special Handling moves as complete. APJP6390 performs Inventory reassign/release processing, if any. Both of these procedures can be restarted from their beginning.

When Status Posting Program (APCS5391) Halts

CA-PanAPT executes the Status Posting program (APCS5391) for a Library Code according to condition codes set by the programs that effect the member moves. Typically, if one member fails in a Library Code, the moving program sets a bad condition code. If that happens, APCS5391 does not execute for that Library Code and none of the members for the Library Code are posted. None of the Move Requests that contain these members can be marked complete.

It is possible for a Move Request to be complete, but not have a status of complete. To determine if a Move Request is complete, even though the status does not reflect it, use this procedure along with the Move Processing Summary report (APC55395-01):

1. Locate the Move Requests in question.
2. Determine which members are not marked complete. (Status flags on each member indicates the member is not complete.)
3. Determine the Library Codes to which they belong.
4. Determine whether those members did, in fact, get moved. You can see the JCL and output of the move processing Job to see whether any members for that Library Code were moved.
5. Ensure that processing has completed for all members of the Library Code. You might have to edit the input to some of the processing steps and resubmit the Job.
6. When you know that all members have been moved, you can change the status using a CA-PanAPT online activity. Or, you can run the posting program using the original input intended for the PROC that failed with a post type of M.

If the Move Processing Summary report is not available, you can determine the proper status of a Move Request using the CA-PanAPT ISPF facilities.

1. Using the Move Request Maintenance BRO function, select the appropriate status codes that allow you to monitor the Move Processing Cycle (SL, AM, AE, SL-B, AM-E, and AE-B for all of your move levels).

2. Select the Move Requests in question by using the INQ function from the Browse Move Requests List panel.
3. Determine whether any member in the Move Request has a status flag set.
4. If all members have completed processing, use the Move Request Maintenance STA function to change the Move Request to whichever status is appropriate: Move to *level-name*, Awaiting *next-level-name* App, Approved for *next-level-name*, or *level-name* Bkot Complete.

Chapter 10: Online Report Facility

The CA-PanAPT Online Report Facility provides a generalized processing environment where CA-PanAPT batch reports can execute in the fore\-ground and you can browse the output reports through standard ISPF services.

This section contains the following topics:

Selecting the Report (see page 401)
Report Processing Option Control Values (see page 403)
Browsing the Selected Report (see page 407)

Selecting the Report

Online Report Facility Report Selection Panel

To access the Online Report Facility, type **REP** or **R** on the CA-PanAPT Main Menu. The Online Report Facility - Report Selection panel displays.

For more information on what each report provides, enter the **HELP** command (PF1) to access a help panel that describes each report.

Panel Field Description

Action

Required. Length: 1-3. Type: alphanumeric.

Select the desired report by entering the following report code listed on the Report Selection panel.

A

Produces the APCS6111-01 Inventory Report, after first displaying a panel prompting for report selection criteria.

B

Produces the APCS5105-01 Group Cross-Reference Report. There is no selection criteria for this report.

C

Produces the APCS5104-01 Approval Category Cross-Reference Report. There is no selection criteria for this report. When you select the Inventory Report, CA-PanAPT displays the current values of the selected report's processing option control values.

Final Panel Processing

Specify an Action and press ENTER to continue. If you select report A (APCS6111 - Inventory Report), the Online Report Facility - APCS6111 Criteria panel displays. Otherwise, the selected report is generated, and ISPF BROWSE is invoked to let you view the report.

Discontinue Processing

If you want to exit this activity without completing the Action, enter the END command (PF3) before pressing ENTER. You then return to the CA-PanAPT Main Menu.

Report Processing Option Control Values

Online Report Facility APCS6111 Criteria Panel

When you select Report A (APCS6111 - Inventory Report), CA-PanAPT displays the Online Report Facility - APCS6111 Criteria panel.

This panel contains the current processing option control values for the report you selected. The values are from the user's profile. If profile variables do not exist, all values are blank.

The function of the control options are identical to the control parameters specified in the batch SYSIN control stream (see APJJ6111). The control values are specified through ISPF variables instead of control stream para\-meters to reduce the possibility of syntax errors. When processed, the non-blank values are saved in the profile pool.

If all values are blank, the profile is not updated and no parameters are passed to the report program.

You can display a help panel describing the function and defaults of each report control value by entering **HELP** (PF1).

The Inventory Record must meet all selection values to be included in the report. Blank values are allowed and indicate that the item is not used as a selection criterion.

Panel Field Descriptions

Report Form

Required. Length: 1. Valid values: L or S. Default: S.

The Report Form value controls the format of the report. A value of L (Long) produces a detailed report. A value of S (Short) produces an abbreviated listing.

Sort By

Required. Length: 1. Valid values: L, M, or A. Default: M.

The Sort By value controls the order of the presentation of detail data. A value of L sorts the detail data first by ascending Library Code values and second by ascending name values. A value of M sorts the detail data first by ascending member name values and second by ascending Library Code values. A value of A sorts the detail data by ascending assigned user ID name values.

Libcode

Optional. Library Code length: 1-4. No default.
Subcode length: 1-3. No default.

The Libcode value controls the selection of specific Inventory File Records associated with the specified Library Code value. Enter a Library Code value in this form: Library Code/Subcode. The * and ? wildcard characters can be used.

Member

Optional. Length: 1-10. Type: alphanumeric. No default.

The Member value controls the selection of specific Inventory File Records associated with the specified member name value. The * and ? wildcard characters can be used.

Last MR

Optional. Length: 1-6. Type: numeric. No default.

The Last MR controls the selection of specific Inventory File Records last moved by the specified Move Request. The * and ? wildcard characters can be used.

Owner

Optional. Length: 1-8. Type: alphanumeric. No default.

The Owner value controls the selection of specific Inventory File Records associated with the specified Owner name value. The * and ? wildcard characters can be used.

Assigned MR

Optional. Length: 1-6. Type: numeric. No default.

The Assigned MR controls the selection of specific Inventory File Records assigned to the specified Move Request. The * and ? wildcard characters can be used.

Assigned

Optional. Length: 1. Valid values: Y (Yes), N (No), or blank. Default: blank.

The Assigned value controls the selection of specific Inventory File Records that are (or are not) in the Assigned state. A value of Y selects all Inventory File Records that are Assigned. A value of N selects all Inventory File Records that are not Assigned. A value of blank selects all Inventory File Records.

Application

Optional. Length: 1-8. Type: alphanumeric. No default .

The Application value controls the selection of reporting on specific Inventory File Records associated with the specified Application name value.

Assigned To

Optional. Length: 1-8. Type: alphanumeric. No default.

The Assigned To value controls the selection of specific Inventory File Records assigned to the specified user ID name value. The * and ? wildcard characters can be used.

Environment

Optional. Length: 1-8. Type: alphanumeric. No default.

The Environment value controls the selection of reporting on specific Inventory File Records associated with the specified Environment name value.

Approved

Optional. Length: 1. Valid values: Y (Yes), N (No), or blank. Default: blank.

The Approved value controls the selection of specific Inventory File Records that are (or are not) in the Approved state. A value of Y selects all Inventory File Records that are Approved. A value of N selects all Inven\-tory File Records that are not Approved. A value of blank selects all Inven\-tory File Records.

Language

Optional. Length: 1-8. Type: alphanumeric. No default.

The Language value controls the selection of specific Inventory File Records associated with the specified language name value.

User0001 0005

Optional. Length: 1-8. Type: alphanumeric.

Enter a value in User0001 through User0005 to select Inventory Records containing those field's values.

User0006 0010

Optional. Length: 1-16. Type: alphanumeric.

Enter a value in User0006 through User0010 to select Inventory Records containing those field's values.

Final Panel Processing

Specify the desired control values and press ENTER to process. The Inventory Report is generated, and ISPF BROWSE is invoked to let you view the report.

Discontinue Processing

If you want to exit this activity without completing the Action, enter the **END** command (PF3) before pressing ENTER. You then return to the Online Report Facility - Report Selection panel.

Browsing the Selected Report

After you select the report control values and press ENTER, the foreground execution of the report program begins. The successful execution of the report program produces a sequential report file (with no carriage controls). When control is returned to the Online Report Facility, CA-PanAPT uses the ISPF BROWSE service to display the report.

Chapter 11: User Identification Facility (UIF)

This section contains the following topics:

About UIF (see page 409)
CA-PanAPT/UIF Setup Requirements (see page 410)

About UIF

CA-PanAPT provides an independent logon facility, the User Identification Facility (UIF). The CA-PanAPT/UIF provides a centralized facility to define details about a working environment to CA-PanAPT. For example, it includes which database to allocate and access, the authorized users and passwords for job submissions, the panel, message, skeleton, and table libraries to allocate, as well as other entries. This is very useful for single development teams or groups within departments to have their own CA-PanAPT databases. Many times a single group is working on several different projects or products, and by using this facility (with the appropriate CA-PanAPT logon system ID), instructs CA-PanAPT which environment to set up for a session.

The CA-PanAPT/UIF provides four major functions:

- Creating logon system IDs
- Changing logon system IDs
- Deactivating logon system IDs
- Enforcing the use of this facility by using external security (Unicenter for OS/390 Common Services CAISSF) and restricting specific logon system IDs.

For more information on using and setting up external security, see the "Update Your Security System" step in the chapter "Installation and Customization Using SMP/E," in the *CA-PanAPT Getting Started Guide*.

CA-PanAPT/UIF Setup Requirements

During the installation process, an ISPF table is created which contains panels and messages that are required for the CA-PanAPT/UIF functions. If you create your own ISPF table data set, you must move all the members from the ISPF table that was created during the installation process.

You must add APTSIDTB DD to your Logon Proc to point to either the ISPF table data set that was created during the installation process or to the table you might have created. This is required whether using the CA-PanAPT/UIF functionality or not. CA-PanAPT allocates the data set that DD APTSIDTB points to and checks whether a CA-PanAPT Logon ID is required by issuing an External Security Call.

The following steps explain what changes have to be made to your entry panels to enter CA-PanAPT or the CA-PanAPT/UIF.

Step 1: Create TSO Logon Procedure

Create a TSO logon procedure to allocate the necessary CA-PanAPT software libraries. Concatenate these data sets with the corresponding IBM ISPF/PDF data sets. Use the following general guidelines for creating this LOGON procedure:

- Concatenate the corresponding CA-PanAPT software library as the first data set for each applicable ddname.
- Specify the CA-PanAPT load library and the IBM LE/390 COBOL Compiler runtime library in the allocation for the ddname STEPLIB or ISPLLIB. As an alternative, place these libraries in the LINKLIST. This example assumes the proper runtime libraries have been added to the LINKLIST.
- Ensure that the CA-PanAPT PDS libraries have a block size that is equal to or larger than all of the other data sets in each concatenation, or unpredictable results occur.
- The SYSOUT DD is required by some sort programs. Without it, the sort might pass back a non-zero return code, causing online reports to fail.

A sample TSO logon procedure is shown next.

Authorize several TSO user IDs to use this LOGON PROC so you can see the effects of CA-PanAPT security authorization.

```
//STEPNAME     EXEC PGM=IKJEFT01,PARM='PROFILE',DYNAMNBR=25
//*
//*  Note: This example LOGON procedure assumes that a CLIST
//*        named PROFILE exists in the SYSPROC concatenation,
//*        and that it will allocate the user's ISPPROF data set.
//*        This is done via the PARM='PROFILE' on the EXEC
//*        statement. If you do not want to follow this
//*        procedure, remove the PARM='PROFILE' from the EXEC.
//*
//STEPLIB     DD   DISP=SHR,DSN=CAI.LOADLIB
//            DD   DISP=SHR,DSN=ISR.V2R3M0.ISRLOAD
//            DD   DISP=SHR,DSN=ISP.V2R3M0.ISPLOAD
//ISPLLIB     DD   DISP=SHR,DSN=CAI.LOADLIB
//            DD   DISP=SHR,DSN=ISR.V2R3M0.ISRLOAD
//            DD   DISP=SHR,DSN=ISP.V2R3M0.ISPLOAD
```

```
//ISPPLIB     DD   DISP=SHR,DSN=CAI.ISPPLIB
//            DD   DISP=SHR,DSN=ISR.V2R3M0.ISPPLIB
//            DD   DISP=SHR,DSN=ISP.V2R3M0.ISPPLIB
//ISPMLIB     DD   DISP=SHR,DSN=CAI.ISPMLIB
//            DD   DISP=SHR,DSN=ISR.V2R3M0.ISRMLIB
//            DD   DISP=SHR,DSN=ISP.V2R3M0.ISPMLIB
//ISPSLIB     DD   DISP=SHR,DSN=CAI.ISPSLIB
//            DD   DISP=SHR,DSN=ISR.V2R3M0.ISRSLIB
//            DD   DISP=SHR,DSN=ISP.V2R3M0.ISPSLIB
//ISPTLIB     DD   DISP=SHR,DSN=CAI.ISPTLIB
//            DD   DISP=SHR,DSN=ISR.V2R3M0.ISRTLIB
//            DD   DISP=SHR,DSN=ISR.V2R3M0.ISPTLIB
//SYSPROC     DD   DISP=SHR,DSN=CAI.CLISTLIB
//            DD   DISP=SHR,DSN=ISR.V2R3M0.ISRCLIB
//APTSIDTB    DD   DISP=SHR,DSN=CAI.APTSIDTB
//SYSPRINT    DD   TERM=TS
//SYSOUT      DD   TERM=TS
//SYSIN       DD   TERM=TS
//*
//* If you are not using the CA-PanAPT/UIF and you are invoking
//* CA-PanAPT without invoking the APT CLIST, you must allocate
//* the APTDB and APTMODEL data sets prior to executing
//* PGM(APCS1000) from the primary option menu.
//*
//* APTDB     DD   DISP=SHR,DSN=CAI.APTDB
//* APTMODEL  DD   DISP=SHR,DSN=CAI.APTMODEL
```

Step 2: Modify the ISPF Primary Option Menu

Modify the ISPF Primary Option Menu to allow access to CA-PanAPT.

A modified copy of the IBM sample ISPF/PDF Primary Option Menu panel is distributed with CA-PanAPT on the CAI.ISPPLIB data set as member APIPPRIM. It has been modified to place the CA-PanAPT option on the display definition and on the corresponding SELECT statement in the PROC section. The modifications have been changed with this release to activate the CA-PanAPT/UIF. A sample SELECT statement for CA-PanAPT without the CA-PanAPT/UIF has been provided as a comment line. APIPPRIM has been provided with the assumption that you will want to use the CA-PanAPT/UIF.

Examine these modifications and make the same modifications to your Primary Option Menu panel (ISR@PRIM). Or, use APIPPRIM as distributed after renaming it ISR@PRIM and after reviewing it for compatibility with your system.

There are three modifications you can make to your Primary Option Menu panel:

- CA-PanAPT using the new User Identification Facility (UIF). Call CA-PanAPT for development under a specific pre-defined UIF development environment.
- CA-PanAPT/UIF setup and administration. Call the CA-PanAPT/UIF to define or administer a development environment.
- CA-PanAPT without the CA-PanAPT/UIF activated.

A sample ISPF/PDF Primary Option Menu panel for CA-PanAPT with both the UIF (Option A) and the UIF administrator's function (Option U) visible is shown next. Notice the line below Option A, there is an input field associated with the selection of this option. Be sure to include this line if you want to use CA-PanAPT with the UIF feature.

```
  ------------------  ISPF/PDF PRIMARY OPTION
MENU  ---------------------
  OPTION  ===>

USERID   - BUTRO02
   0  ISPF PARMS    - Specify terminal and user parameters
TIME     - 17:29
   1  BROWSE        - Display source data or output listings
TERMINAL - 3278
   2  EDIT          - Create or change source data            PF
KEYS  - 24
   3  UTILITIES     - Perform utility functions
   4  FOREGROUND    - Invoke language processors in foreground
   5  BATCH         - Submit job for language processing
   6  COMMAND       - Enter TSO command or CLIST
   7  DIALOG TEST   - Perform dialog testing
   8  LM UTILITIES  - Perform library management utility functions
   A  CA-PanAPT     - Development and Production Turnover System:
        For UIF, Enter CA-PanAPT Logon System-ID or * for MSL =>

________
   U  CA-PanAPT/UIF - APT User Identification Facility, System-ID
setup
   C  CHANGES       - Display summary of changes for this release
   T  TUTORIAL      - Display information about ISPF/PDF
   X  EXIT          - Terminate ISPF using log and list defaults

  Enter END command to terminate ISPF.
```

See the sections that follow for instructions on how to invoke CA-PanAPT with the UIF feature or how to invoke CA-PanAPT without the UIF feature.

Invoke CA-PanAPT With the UIF

To modify your ISPF/PDF Primary Option Menu panel to invoke CA-PanAPT and have the UIF establish a development environment at the same time, add the statements in the following sections to ISR@PRIM:

)BODY section

```
"% A +CA-PanAPT  - Development and Production Turnover System:
"

"  For UIF, Enter CA-PanAPT Logon System-ID or * for MSL
=>_APTSYSID+ "
```

)INIT section

```
".CURSOR = ZCMD "
```

)PROC section

```
"A,'PGM(APCS1000) NEWAPPL(APT) PARM(&ZTRAIL;&APTSYSID)
NOCHECK' "
```

Invoke the UIF Administration Function

To modify your ISPF/PDF Primary Option Menu panel to invoke the CA-PanAPT UIF administration function, add the statements in the following sections to ISR@PRIM:

)BODY section

```
"% U +CA-PanAPT/UIF - APT User Identification Facility,
System-ID setup "
```

)PROC section

```
"  U,'PGM(APAS4UIF) NOCHECK'  "
```

The UIF feature requires the presence of an ISPF table data set allocated to ddname APTSIDTB. Create a new ISPF table data set or use an existing one, as appropriate for your environment. Suggested DCB attributes: (RECFM FB LRECL 80 BLKSIZE 3120).

Invoke CA-PanAPT Without the UIF

To modify your ISPF/PDF Primary Option Menu panel to invoke CA-PanAPT without the UIF feature, add the statements in the following sections to ISR@PRIM:

)BODY section

```
"% A +CA-PanAPT - Development and Production Turnover System "
```

)PROC section

```
"A,'CMD(%APT) NOCHECK' "
```

Or, if you previously allocated the APTDB and APTMODEL data sets, use the

following statement :

```
"A,'PGM(APCS1000) NEWAPPL(APT) PARM(&ZTRAIL) NOCHECK' "
```

CA-PanAPT Logon System ID Setup

Use the CA-PanAPT Logon System ID Setup panel to create a CA-PanAPT logon system ID, change an existing CA-PanAPT logon system ID, or copy an existing system ID to use as a template.

You access the CA-PanAPT Logon System ID Setup panel from your ISPF/PDF Primary Option Menu.

From the CA-PanAPT Logon System ID Setup panel you can enter an existing system ID to display the values of the system ID, as shown in the third panel. If you enter a new system ID, the Logon System ID Setup panel displays with the Active fields set to N (No) and the Value fields blank, as shown in the first panel. Or, you can enter an asterisk (*****) to display the Logon System ID List panel to select from an MSL of existing system IDs, as shown in the second panel.

The CA-PanAPT UIF provides pre-defined keywords to set up CA-PanAPT logon system IDs. The CA-PanAPT logon system IDs contain the specifications for the database, model data set, and other pre-defined controls to use.

Panel Field Descriptions

System-ID

Required. Length: 1-8. Type: alphanumeric.

This is the INDEX (member name). The keyword records are saved to this logon system ID. Use this name when you log on to CA-PanAPT.

Active

Required. Length: 1. Type: alphabetic. Valid values: Y (Yes) or N (No).

Enter Y to activate the value entered or enter N to deactivate the value entered. If you set the Active field to Y, you must enter a value in the Value field.

Act

Required. Length: 1. Type: alphabetic. Valid values: C or blank (Change), D(Delete), or I (Concatenation).

You can change or delete the corresponding keyword information for the specified logon system ID. You can also concatenate the panel, message, table, and skeleton libraries.

Value up to 56 bytes Optional.

Length: 56. Type: alphanumeric. Enter the corresponding information for the keyword.

Note: CA-PanAPT does not validate the contents of the Value field. For example, it does not validate if the syntax is correct or if the data set name exists. When the contents of this field are entered incorrectly, a diagnostic error message is issued when logging on to CA-PanAPT or when the value entered is used.

Keywords

COMMENT

Description of the logon system ID that you are creating.

APTDB

Name of the database to allocate when logging on to CA-PanAPT.

APTMODEL

Name of the model data set to use for job submissions.

PANESRL

Name of the CA-Panexec system data set to use.

AUTH-ID

User ID authorized to run batch jobs when submitted through CA-PanAPT.

AUTH-PW

Authorized password for above user ID to run batch jobs when submitted through CA-PanAPT.

ISPPLIB

This keyword identifies the panel libraries to allocate when logging on to CA-PanAPT. You can concatenate panel libraries by entering an I in the Action field.

ISPMLIB

This keyword identifies the message libraries to allocate when logging on to CA-PanAPT. You can concatenate message libraries by entering an I in the Action field.

ISPTLIB

This keyword identifies the table libraries to allocate when logging on to CA-PanAPT. You can concatenate table libraries by entering an I in the Action field.

ISPSLIB

This keyword identifies the skeleton libraries to allocate when logging on to CA-PanAPT. You can concatenate skeleton libraries by entering an I in the Action field.

Chapter 12: Project Administration

This section contains the following topics:

What Are Projects? (see page 420)
Project Administration Main Panel (see page 422)
Register Development Test Libraries for Projects (see page 425)
Register Development Work Libraries for Users (see page 435)

What Are Projects?

A "Project" definition creates a CA-PanAPT system record that associates a special group of libraries, called "Development Libraries" with a group of members defined in one or more Move (Change) Requests. Each Project has a unique name that can be cross-referenced (or tied) to a specific Move Request. The Description of Move Request panel (accessed by the Move Request Maintenance function) has a Project field that can now be used to associate a specific Project Name. An individual Project Name can be associated with several Move Requests. Therefore, the modules that are associated with the Project's Move Requests are associated with the Project and are eligible to be processed by the CA-PanAPT Development Facility.

Development Libraries are used to contain modules that are to be modified for a Project. There are two types of Development Libraries that can be defined by a Project:

- Development Test Library associated with a Library Code, and
- Development Work Library associated with a Library Code and a specific user ID.

Typically each developer will have their own private Development Work Libraries. It allows them to make changes without impacting other developers. When you check out a member and your Project is using Development Work Libraries, the members are checked out into the developer's work library. If your Project is not using Development Work Libraries, then members are checked out into the shared Development Test Libraries.

When the developer is done making changes and is ready to promote the changes so the other developers on the Project can share the changes, the developer will then check in the changes to the Development Test Libraries.

Note: In your CA-PanAPT system, the names Development Work and Development Test might have been changed. As a result, some of your panels might appear different than those in this chapter; the names for the Development Work and Development Test levels appear there. The Development Work level is the lowest level defined to CA-PanAPT, and the Development Test level is the next level up.

The Development Facility uses a Project definition to determine which Development Library data set is associated with a particular member from a particular Library Code being accessed by a particular user ID. The Project Administration functions described in this chapter can control the association of a physical data set with a Project library for a particular Project and Library Code.

When CA-PanAPT determines which Development Work Library to use, it performs a search for the Development Work Libraries defined to the developer. Each work library has a lookup criteria that includes a Library Code, a Library Code type, an Access Method, and a Project Name. Wildcard characters (explained in detail later in this chapter) can be specified for any of the lookup criteria, except the Access Method (which also serves as the Access Method of the work data set). The first work library with lookup criteria that matches the actual Library Code, Library Code type, Library Code Development Options Access Method, and Project in use is selected.

Likewise when CA-PanAPT determines which Development Test Library to use, it performs a search for the Development Test Libraries defined to the Project. Each Development Test Library has the same lookup criteria as a work library, except for a Project Name. The first Development Test Library with lookup criteria that matches the actual Library Code, Library Code type, and Library Code Development Options Access Method is selected.

Usually when CA-PanAPT searches for a Development Work or Development Test Library, and one cannot be located, the function being performed is aborted. However, some functions, such as a Browse, perform without aborting.

Project Administration Main Panel

The Project Administration panel is used to create and maintain both Projects and Move Requests.

A new Project is created by registering a Development Test Library to a new Project Name. Once a Project and Development Test Library exists, it can be associated with one or more Move Requests by entering the Project Name in the Project field (in the Description of Move Request panel). Either the Manipulate Change Request Action (of Project Administration) or the Create, Display, or Update a Move Request Option (of the CA-PanAPT Main Menu) provides this service. Several functions are provided on this panel:

- You can add, update, delete, or inquire on a Project and optionally add, update, delete, or inquire on a Development Test Library definition associated with a Project.
- You can update or inquire on a Development Work Library definition for a particular user ID (already registered to CA-PanAPT).
- You can also add, update, or inquire on a Move Request. If a Move Request is already in the migration path, you can now retrieve (copy for rework) the members and make the necessary changes.

From the CA-PanAPT Main Menu, enter **PA** or **P** to display the Project Administration panel.

Panel Field Descriptions

Enter Action

Required. Length: 1-3. Type: alphanumeric.

ADD or A

When the Register Development Test Libraries function is selected, this action lets you add a Project to the Control File.

When the Manipulate a Change Request function is selected, this action lets you add a Move Request to the Pending File.

CHG or C

When either the Register Development Test Libraries or Register Work Libraries function is selected, this action lets you change a Project in the Control File

When the Manipulate a Change Request function is selected, this action lets you change a Move Request on the Pending File.

INQ or I

When either the Register Development Test Libraries or Register Work Libraries function is selected, this action lets you inquire on a Project in the Control File.

When the Manipulate a Change Request function is selected, this action lets you view a Move Request on the Pending File.

DEL

When the Register Development Test Libraries function is selected, this action lets you delete a Project from the Control File.

CR

This action lets you copy a Move Request for rework. Select a particular Move Request by entering either a Move Request Number or Change Name, or by entering blanks to display a Move Request Selection List.

After the Move Request has been selected, you can then select from the associated members so that they can be changed.

Select To

Required. Length: 1. Valid value: S.

Enter **S** in the Select To: field column for one of the following processing options:

- Register DEV TEST Libraries for Projects. This processing option enables you to set up a Development Test Library that is to be associated with the specified Project Name. For instructions on how to use this option, see "Register Development Test Libraries for Projects" later in this chapter.
- Register WORK libraries for users. This processing option enables you to set up a Development Work Library for a particular user ID. For instructions on how to use this option, see the Register Development Work Libraries for Users later in this chapter.
- Manipulate a Change Request. This processing option lets you perform selected Move Request Maintenance functions: Add (ADD/A), Change (CHG/C), Copy for Rework (CR), or Inquire (INQ/I). For more information, see the "Move Requests" chapter.

Enter Project Name

Optional. Length: 1-16. Type: alphanumeric.

Enter the Project Name you would like to ADD (create), CHG (update), INQ (view), or DEL (delete). If you leave this field blank, a list displays of all existing Projects from which to select.

Enter UserID

Optional. Length: 1-8. Type: alphanumeric.

This must be a pre-existing CA-PanAPT user ID defined by the Control File Maintenance function. This function provides a (private) Development Work Library to be defined and associated with the specified user ID. Thus, when the user ID requests the Checkout development function, the pre-defined Development Work Library will be used as the destination for the Checkout copy job.

Enter Change Name

If you leave this field blank, the Move Request Selection List panel displays a list of current Move Requests for your selection. Otherwise, you can enter a particular Change Name and/or Move Request Number.

Note: For the ADD function, this field is ignored because the system automatically assigns a Move Request Number (the new Change Name can be supplied during the ADD process).

Optional. Change Name Length: 1-16. Type: alphanumeric. Optional. Move Request Number Length: 1-6. Type: numeric.

Enter the Move Request Number or Change Name to access. If a number is entered, it does not have to be right- or left-justified or zero-filled. For example, 18 is translated to "000018."

Final Panel Processing

When you have completed the processing of the selected Project or Move Request, the Development Facility panel redisplays for further input. Select another action and press ENTER to process or enter the END command (PF3) to return to the CA-PanAPT Main Menu panel.

Discontinue Processing

To discontinue the current process, enter the END command (PF3) to return to the Project Administration panel for further input.

Register Development Test Libraries for Projects

When you select Register DEV TEST Libraries for Projects on the Project Administration panel, the Project Selection List panel or the Project Maintenance panel displays. If no Project Name is entered, the Project Selection List panel displays. Otherwise, the Project Maintenance panel displays.

Project Selection List Panel

The Project Selection List panel displays when you select Register DEV TEST Libraries for Projects on the Project Administration panel and do not specify a Project Name. The Project Selection List panel also displays when you enter **?** for Project on the Description of Move Request panel in Move Request Maintenance.

From the Project Selection List panel you can select a Project for the action specified on the Project Administration panel by entering **S** in the Act field to the left of the Project and pressing ENTER. If displayed from Move Request Maintenance because you entered a ? for the Project Name, you can view a Project by entering **I** in the Act field, or you can select a Project to use for that Move Request.

Final Panel Processing

When you have entered an action in the Act field, press ENTER. If the action I was entered, the Project Maintenance panel displays to view the Project. If the action S was entered and you got here from Move Request Maintenance, you are returned to the Description of Move Request panel with the Project Name filled in for you. If the action S was entered and you got here from the Project Administration panel, you are taken to the Project Maintenance panel to continue the action entered on the Project Administration panel.

When you finish on the Project Maintenance panel, you are returned to this panel where you can select another Project.

Discontinue Processing

To end out of this function, enter the **END** command (PF3). You return to the Project Administration panel or the Description of Move Request panel.

Project Maintenance Panel

The Project Maintenance panel enables you to set up and maintain Test Development Libraries for Projects. Use this panel to tell the system what libraries to use for Checkouts, Checkins, certain Development functions (such as Edit and Merge), and Library types (such as Object, Source, MACLIBs, and so forth).

Panel Field Descriptions

Project

Display only. This field displays the Project Name you entered on the previous panel.

Description

Required for ADD and CHG. Optional for INQ and DEL. Length: 1-50. Type: alphanumeric.

This field contains the description of the Project. No edits are performed beyond disallowing blanks.

View/maintain DEV TEST libraries

Required. Length: 1. Valid values: Y (Yes) or N (No).

A Y indicates you are to be presented a list of Development Test Libraries to maintain or view.

User WORK libraries enabled

Display only for INQ and DEL. Required for ADD and CHG. Length: 1. Valid values: Y (Yes) or N (No).

A Y indicates that user Development Work Libraries are used for this Project for the Library Codes that also have the work level enabled in the development options. An N indicates that only the Development Test Libraries are used.

Final Panel Processing

Press ENTER. For the ADD and CHG actions, the Project is added or updated. If you entered Y for View/maintain DEV TEST libraries, you now proceed to the Project Development Library List panel, discussed next. When you exit from the Project Development Library List panel, you return here and can make additional changes if you want.

For the DEL action, the Project is deleted when you press ENTER with N entered for View/maintain DEV TEST libraries. That is, if you are viewing the Development Test Libraries, the delete of the Project is deferred until you have viewed them and pressed ENTER again.

If you enter N for View/maintain DEV TEST libraries, the update or delete, if any, takes place. You then return to the Project Administration panel or the Project Selection List panel.

Discontinue Processing

To discontinue with no further changes, enter the **END** command (PF3). You then return to the Project Administration panel or the Project Selection List panel.

Project Development Library List Panel

When you enter **Y** for View/maintain DEV TEST libraries on the Project Maintenance panel, you proceed to the Project Development Library List panel. From this panel you are shown the list of Development Test Libraries defined to this Project. You can add libraries to the list, remove libraries from the list (assuming they are not in use), change data in the libraries' definitions, or view the details of a library. You can also change the positions of the libraries, which can influence which library is selected when a Development Test Library is needed.

Panel Field Descriptions

Command

Optional. Type: alphanumeric.

In addition to any ISPF commands available to any panel, there are some commands pertinent to this panel.

To add a library definition to the list, enter the **ADD** command. You are taken to the Project Development Library Setup panel to enter the details for the new library. The new library is positioned at the end of the list unless an action of B (Before) or A (After) was specified to the left of another library, in which case it determines the position.

To undo the changes you made from this panel, you can enter the **CANCEL** command. You are returned to the Project Maintenance panel with your changes backed out.

You can also issue the **XM** (Expert Mode) and **HM** (Help Mode) commands, as shown near the top of the panel, to display all of the actions on the panel or to leave off the actions, allowing more rows to be shown at a time.

Act

Optional. Type: alphabetic. Length: 1-3. Valid values: see below.

Chg or C

Lets you change the library definition. You are taken to the Project Development Library Setup panel to change the details.

Del or D

Deletes the library definition if it is not in use. You are taken to the Project Development Library Setup panel to confirm the delete. Enter the **END** command on the Project Development Library Setup panel if you decide not to delete the library definition.

Inq or I

Lets you view the library definition, using the Project Development Library Setup panel.

M

Lets you move a library definition to change the order the libraries are searched when CA-PanAPT is determining which Development Test Library to use for a member. The A or B action must be specified next to another library to specify where to move the library to.

A and B

Lets you specify where to move or add a library definition. For a move, the M action must be specified next to the library definition you want to move. A indicates to position the library after the library on which the A action is specified. B indicates to position the library before the library on which the B action is specified.

Library Code

Display only. The lookup Library Code is displayed.

Type

Display only. The lookup Library Code Type is displayed.

Access Method

Display only. The library's Access Method is displayed.

Data set name

Display only. The library's data set name is displayed.

Final Panel Processing

After entering data, press ENTER. If the ADD command or the CHG, DEL, or INQ action is specified, you are taken to the Project Development Library Setup panel.

When you are satisfied with your changes, enter the **END** command (PF3). The Project is updated with changes, and you return to the Project Maintenance panel.

Discontinue Processing

To cancel your changes, enter the **CANCEL** command and press ENTER. You return to the Project Maintenance panel with your changes backed out.

Project Development Library Setup Panel

The Project Development Library Setup panel lets you view and maintain a Project development test library definition. This panel displays when you enter an action on the Project Development Library List panel.

Panel Field Descriptions

Project

Display only. The name of the specified Project is displayed.

Description

Display only. The description of the Project is displayed.

Project Library Lookup Criteria

Library Code name

Required. Length: 1-7. Type: alphanumeric.

Enter the Library Code name or pattern. Wildcard characters can be used. If you want to enter a name but cannot remember what it is, you can enter the **LC** command to display a list of all your Library Codes. When you select one, its name is entered here. Its type and development options Access Method are also entered on this panel.

Wildcard notation allows for generic pattern matching in Library Code names. This allows a single library definition to be used for multiple Library Codes.

The two wildcard characters used are:

- Asterisk (*) - indicates any number of characters or no characters
- Question mark (?) - indicates any single character.

A Library Code and/or Subcode can contain only one asterisk (*) but can contain any number of question marks (?). One Library Code and/or Subcode can contain both an asterisk and question marks.

Sample Pattern	Meaning
MY*/ONE	All Library Codes with LIBCODE values that begin with the first two letters 'MY' and a SUBCODE value of 'ONE' are associated with the specified data set (setup) definition. For example, this includes Library Codes such as 'MY/ONE', 'MY10/ONE', and 'MY1/ONE'.

Sample Pattern	Meaning
MY?/ONE	All Library Codes with LIBCODE values of length 3 that begin with the first two letters 'MY' and a SUBCODE value of 'ONE' are associated with the specified data set (setup) definition. For example, this includes Library Codes such as 'MY1/ONE', but not 'MY/ONE', 'MY10/ONE', or 'MY1/TWO'.
*/ONE	All Library Codes with any LIBCODE value and a SUBCODE value of 'ONE' are associated with the specified data set (setup) definition. For example, this includes Library Codes such as 'MY1/ONE' and 'YOUR/ONE', but not 'MY/TWO', or 'YOUR/TWO'.
/	All Library Codes with any LIBCODE value and any SUBCODE value are associated with the specified data set (setup) definition.
MY/O?E	All Library Codes with a LIBCODE value of 'MY' and a SUBCODE value that begins with the letter 'O' and ends with the letter 'E' are associated with the specified data set (setup) definition. For example, this includes Library Codes such as 'MY/ONE', but not 'MY1/ONE', 'MY/ON', or 'MY/WE'.

Library Code type

Required. Length: 1-8. Type: alphanumeric.

Enter the Library Code type value or wildcard pattern to be matched. The Library Code type indicates what the Library Code is used for, such as source or object. This is important when wildcards are used for PDS Library Codes because you would not want source, object, and executable all in the same PDS. For PDS data sets, this is an easy way to indicate that one library is for source and another library is for object. Normally, this is not necessary for CA-Panvalet or CA-Librarian data sets because they are normally used only for source, and the Access Method is sufficient.

Access Method

Optional. Length: 1-2. Type: alphanumeric.

Enter the Access Method of the data set. This must also match the Library Code development options Access Method. If you cannot remember your Access Method names, enter the **AM** command and press ENTER to display a list of Access Methods.

Data set information

Data set name

Required. Length: 1-44. Type: alphanumeric.

Enter the OS/390 data set name to use for the Development Test Library.

Security

Optional. Length: 1-10. Type: alphanumeric.

Enter any required password or control field required for the library. CA-PanAPT does not edit the data entered in any way.

The security field is used by the model processing. It is model-dependent.

Examples of entries into this security field are a CA-Panvalet control code or a special password.

Final Panel Processing

When you are done, press ENTER. CA-PanAPT accepts the changes and returns to the Project Development Library List panel.

Discontinue Processing

If you decide not to make any changes, enter the **END** command (PF3). CA-PanAPT returns you to the Project Development Library List panel without changing the library definition.

Register Development Work Libraries for Users

The Work Library List for User panel enables you to view and maintain Development Work Library definitions (setups) for a specified user ID. You can create (ADD), update (CHG), delete (DEL), or view (INQ) setups for lookup and data set information definitions that identify a Development Work Library.

From the Project Administration panel enter **CHG** or **INQ** in the Enter Action field and **S** in the Register WORK libraries for users field to display the Work Library List for User panel.

Panel Field Descriptions

Library Code

Display only. The lookup Library Code is displayed.

Type

Display only. The lookup Library Code Type is displayed.

Access Method

Display only. The library's Access Method is displayed.

Project

Display only. The lookup Project is displayed.

Command Line Functions

Optional. Length: 1-6. Valid values: see below.

Add

Add a new entry to the list. You are taken to the Work Library Setup for User panel to enter the details for the new library. The new library is positioned at the end of the list unless an action of B (Before) or A (After) was specified to the left of another library, in which case it determines the position.

END

End changes. Same as the END command (PF3) end processing. The changes are updated on the database at this time.

CANCEL

Backout changes. The associated changes are not updated.

XM

Expert Mode. Displays a different view of the same table, called Expert Mode. The Command Line and Action Command prompt information are eliminated to provide a larger table display area.

Action Commands

Required. Length: 1-3. Valid values: see below.

CHG or C

Change work library definition. This action lets you update a pre-existing Development Work Library definition for the user ID. This action displays the Work Library Setup for User panel (described below) for change processing. Upon conclusion, the Work Library List for User panel redisplays for further processing with the newly updated row.

Del or D

Delete work library definition. This action lets you delete a pre-existing Development Work Library definition for the user ID. This action displays the Work Library Setup for User panel (described below) for delete confirmation processing. Upon conclusion, the Work Library List for User panel redisplays for further processing (less the deleted row).

Inq or I Inquire.

This action lets you view a pre-existing Development Work Library definition for the user ID. This action displays the Work Library Setup for User panel (described below) for display only. Upon conclusion, the Work Library List for User panel redisplays for further processing.

M A/B

Move entry After or Before, to change processing order. Since the generic Development Test Library List is searched from top-to-bottom when determining the associated Development Work Library data set, the order of the table affects the outcome. Thus, the M (Move) Action lets you adjust the table order. Enter M on the row that is to be moved, and A (After) or B (Before) on the row that identifies the destination of the move. Note that the A and B actions also affect the position that a new library definition is added, as mentioned with the Add command.

Final Panel Processing

After entering data, press ENTER. If the Add command or the CHG, DEL, or INQ action is specified, you are taken to the Work Library Setup for User panel.

When you are satisfied with your changes, enter the END command (PF3). The Project is updated with changes, and you return to the Project Maintenance panel.

Discontinue Processing

To cancel your changes, enter the CANCEL command and press ENTER. You return to the Project Maintenance panel with your changes backed out.

Work Library Setup for User Panel

The Work Library Setup for User panel lets you view and maintain a user development work library definition. This panel displays when you enter an action on the Work Library List for User panel.

Panel Field Descriptions

Project Library Lookup Criteria

Library Code name

Required. Length: 1-7. Type: alphanumeric.

Enter the Library Code name or pattern. Wildcard characters can be used. If you want to enter a name but cannot remember what it is, you can enter the **LC** command to display a list of all your Library Codes. When you select one, its name is entered here. Its type and development options Access Method are also entered on this panel.

Wildcard notation allows for generic pattern matching in Library Code names. This allows a single library definition to be used for multiple Library Codes.

The two wildcard characters used are:

- Asterisk (*) - indicates any number of characters or no characters
- Question mark (?) - indicates any single character.

A Library Code and/or Subcode can contain only one asterisk (*) but can contain any number of question marks (?). One Library Code and/or Subcode can contain both an asterisk and question marks.

Sample Pattern	Meaning
MY*/ONE	All Library Codes with LIBCODE values that begin with the first two letters 'MY' and a SUBCODE value of 'ONE' are associated with the specified data set (setup) definition. For example, this includes Library Codes such as 'MY/ONE', 'MY10/ONE', and 'MY1/ONE'.
MY?/ONE	All Library Codes with LIBCODE values of length 3 that begin with the first two letters 'MY' and a SUBCODE value of 'ONE' are associated with the specified data set (setup) definition. For example, this includes Library Codes such as 'MY1/ONE', but not 'MY/ONE', 'MY10/ONE', or 'MY1/TWO'.

Sample Pattern	Meaning
*/ONE	All Library Codes with any LIBCODE value and a SUBCODE value of 'ONE' are associated with the specified data set (setup) definition. For example, this includes Library Codes such as 'MY1/ONE' and 'YOUR/ONE', but not 'MY/TWO', or 'YOUR/TWO'.
/	All Library Codes with any LIBCODE value and any SUBCODE value are associated with the specified data set (setup) definition.
MY/O?E	All Library Codes with a LIBCODE value of 'MY' and a SUBCODE value that begins with the letter 'O' and ends with the letter 'E' are associated with the specified data set (setup) definition. For example, this includes Library Codes such as 'MY/ONE', but not 'MY1/ONE', 'MY/ON', or 'MY/WE'.

Library Code type

Required. Length: 1-8. Type: alphanumeric.

Enter the Library Code type value or wildcard pattern to be matched. The Library Code type indicates what the Library Code is used for, such as source or object. This is important when wildcards are used for PDS Library Codes because you would not want source, object, and executable all in the same PDS. For PDS data sets, this is an easy way to indicate that one library is for source and another library is for object. Normally, this is not necessary for CA-Panvalet or CA-Librarian data sets because they are normally used only for source, and the Access Method is sufficient.

Access Method

Optional. Length: 1-2. Type: alphanumeric.

Enter the Access Method of the data set. This must also match the Library Code development options Access Method. If you cannot remember your Access Method names, enter the **AM** command and press ENTER to display a list of Access Methods.

Project name

Required. Length: 1-16. Type: alphanumeric.

Enter the Project Name or pattern to use with this data set. Wildcard characters can be used. If you want to enter a name but cannot remember what it is, you can enter the **PROJ** command to display a list of all your Projects. When you select one, its name is entered here.

Data Set Information

Data Set name

Required. Length: 1-44. Type: alphanumeric.

Enter the OS/390 data set name to use for the Development Work Library.

Security

Optional. Length: 1-10. Type: alphanumeric.

Enter any required password or control field required for the library. CA-PanAPT does not edit the data entered in any way.

The security field is used by the model processing. It is model-dependent.

Examples of entries into this security field are a CA-Panvalet control code or a special password.

Final Panel Processing

When you are done, press ENTER. CA-PanAPT accepts the changes and returns to the Work Library List for User panel.

Discontinue Processing

If you decide not to make any changes, enter the **END** command (PF3). CA-PanAPT returns you to the Work Library List for User panel without changing the library definition.

Chapter 13: Development Facility

This section contains the following topics:

Development Facility Main Panel (see page 443)
Using the Member Browse (MB) Action (see page 445)
Using the Member Scratchpad (MS) Action (see page 449)
Using the Development Environment (MSL) Action (see page 451)
Line Commands (see page 467)
Action Commands (see page 481)

Development Facility Main Panel

Use the following panel to access the Development Facility functions. The MSL action provides development functions for members that are associated with an existing Project. However, the MB and MS actions provide functions for members that are not associated with a specific Project.

From the CA-PanAPT Main Menu, enter **DEV** or **D** to display the Development Facility panel, APIP400.

Panel Field Descriptions

Enter Action

MSL

Development Facility MSL. Access the development environment to perform functions such as Checkout/Checkin, member text modifications, and member compile/link processing for members that are associated with a defined Project. For detailed instructions on using this function, see Using the Development Environment (MSL) Action later in this chapter.

MB

Browse members in data sets defined by LibCodes Request. Browse the members in associated data sets of selected Library Codes. In addition, you can build a member scratchpad to add selected members to a Move Request (or Change Name). For detailed instructions on using this function, see Using the Member Browse (MB) Action discussed next.

MS

Process current MEMBER “SCRATCHPAD” created by MB. Use the scratchpad to review members for possible modifications. For detailedinstructions on using this function, see Using the Member Scratchpad (MS) Action later in this chapter.

Note: The Member Scratchpad uses temporary storage and is deleted when you terminate CA-PanAPT.

MSL Criteria

Required. Length: 1. Valid values: Y (Yes) or N (No).

If you want to specify the MSL options criteria before the list of members is presented, specify a Y. Otherwise specify an N.

Enter Change Name or Move Request #

Optional. Change Name Length: 1-16. Type: alphanumeric.

Move Request Number Length: 1-6. Type: numeric. Enter the Change Name or Move Request Number on which you want to perform the MSL action. When using a Move Request Number, it does not have to be right- or left-justified, nor zero-filled. For example, 18 is translated to “000018”. Or you can leave this field blank to invoke the Move Request Browse facility to search for a Move Request Number or Change Name.

Final Panel Processing

After the processing of a selected action, the Development Facility panel redisplays. Select another action and press ENTER to process or enter the END command (PF3) to return to the CA-PanAPT Main Menu.

Discontinue Processing

To discontinue processing of a selected action, enter the END command (PF3) to return to the CA-PanAPT Main Menu.

Using the Member Browse (MB) Action

Use the Member Browse (MB) action to inspect all defined Library Codes with their associated level data set definitions and browse the members in the data set associated with each level. Any member can then be selected to add to an ongoing list of members called the Member "Scratchpad." The Member Scratchpad is used to add members to a development Project and is automatically created from temporary storage for each user ID upon entry to CA-PanAPT. You can selectively access the Member Scratchpad when adding members of a Move Request.

Note: The Member Scratchpad uses temporary storage and is deleted when you terminate CA-PanAPT.

From the Development Facility panel, enter **MB** in the Enter Action field to display the Member Browse Library Code Selection List panel, APIP400B.

Note: To use this action to browse a specific data set name, an Access Method must already be defined to the CA-PanAPT system. For detailed instructions on defining Access Methods, see Access Method Maintenance in the "Control File" chapter.

Member Browse Library Level Selection List Panel

From the Member Browse Library Code Selection List panel, enter **S** in the Act field to display the Member Browse Library Level Selection List panel, APIP450B.

Panel Field Descriptions

Action Commands

S

Enter "S" in "ACT" to select the LEVEL. Enter **S** in the Act field to select a single level entry to produce a table display of all the members in the associated data set.

Final Panel Processing

After the selected Library Code Level is successfully processed, the Member Browse Member Selection List panel displays a list of all the members in the selected Library Code Level data set.

Discontinue Processing

To discontinue processing of the Member Browse Library Level Selection List panel, enter the **END** command (PF3). The Member Browse Library Code Selection List panel redisplays with a cancellation message under the associated Library Code. You can make further selections or enter the **END** command (PF3) to return to the Development Facility panel.

Member Browse Member Selection List Panel

From the Member Browse Library Level Selection List panel, enter **S** in the Act field to display the Member Browse Member Selection List panel, APIP400C.

Panel Field Descriptions

Line Command

A or ALL

Enter "A" or "ALL" to select those members not excluded with "X". Enter the **A** or **ALL** command to add all members to the Member Scratchpad, except those excluded using the X action command.

S

Enter "S" to select those members selected with "S". Enter the **S** command to select all the members marked using the S action command to the Member Scratchpad.

M or MORE

Enter "M" or "MORE" for additional input, or **END** to terminate. Enter the **M** or **MORE** command to select another library. The members of the selected library are added to the Member Browse Member Selection List.

Action Commands

X

Exclude members from selection. Use the X action command to exclude a member from the Member Scratchpad. When the A or S command is entered, any members marked with the X action command are not added to the Member Scratchpad.

S

To select members. Use the S action command to include a member for the Member Scratchpad. When the S command is entered, only the members marked with the S action command are added to the Member Scratchpad.

B

To Browse member from the associated LIBCODE LEVEL library. Use the B action command to browse a member. A row is processed by entering the appropriate Browse Service for the Access Method and data set associated with the member, Library Code, and Level data set.

Note: If you enter the B action command for a member, any S or X action that was entered is cleared and must be reentered if still desired.

Final Panel Processing

After entering the **A**, **ALL**, or **S** commands, the selected members are added to the Member Scratchpad.

If you had selected additional Library Codes from the Member Browse Library Code Selection List panel (APIP400B), you are presented with the Member Browse Library Level Selection List panel (APIP450B) for the next Library Code.

If this was the last or only Library Code selected from the Member Browse Library Code Selection List panel (APIP400B), you are returned to the Member Browse Library Code Selection List panel where you can either select additional Library Codes or **END** the creation of the Member Scratchpad.

Discontinue Processing

To discontinue the processing of the Member Browse Member Selection List panel, enter the **END** command (PF3). If you had selected additional Library Codes from the Member Browse Library Code Selection List panel (APIP400B), you are presented with the Member Browse Library Level Selection List panel (APIP450B) for the next Library Code.

If this was the last or only Library Code selected from the Member Browse Library Code Selection List panel (APIP400B), you are returned to the Member Browse Library Code Selection List panel where you can either select additional Library Codes or **END** the creation of the Member Scratchpad.

Browse by Data Set Name

Use the Browse by Data Set Name option to build a list of selected member names from specified data set names and Access Methods for the purpose of browsing the contents of the members.

From the Member Browse Library Code Selection List panel, APIP400B, enter the data set name and Access Method in the labeled fields to display the Browse By Dsname Member Selection List panel, APIP400G.

Panel Field Descriptions

Action Commands

B

BROWSE member from associated Data Set. Enter B in the Act field for each selected member to browse the contents of the associated member. If more than one line is selected, each member is browsed in-turn (from the top-to-bottom in the table display).

Final Panel Processing

When you select more than one member and complete the browse on an individual member, the next member is browsed automatically. When only one member or the last one of several members completes browse processing, the Member By Dsname Member Selection List panel redisplays for further selections. Enter the **END** command (PF3) to return to the Member Browse Library Code Selection List panel.

Discontinue Processing

When you select more than one member and discontinue the browse on an individual member, the next member is browsed automatically. When only one member or the last one of several members discontinues browse processing, the Member By Dsname Member Selection List panel redisplays for further selections. Enter the **END** command (PF3) to return to the Member Browse Library Code Selection List panel.

Processing Note:

Each time the Browse by Data Set Name Member Selection List panel is accessed by specifying new BROWSE Dsname/Access Method field values (on the Member Browse Library Code Selection List panel), the current members from the specified data set name are added in ascending alphabetical order by member name to the top of the table. Thus, previous member selections lists from other data set name requests are kept for additional browse processing. When a Library Code value is selected from the Member Browse Library Code Selection List panel, the contents of the table are deleted. Thus, the table displays only a Library Code or Data Set member selection but does not display both at the same time.

Using the Member Scratchpad (MS) Action

Use the Member Scratchpad (MS) action to display and maintain an ongoing list of members created by the Member Browse (MB) action. The Member Scratchpad is automatically created from temporary storage for each user ID upon entry to CA-PanAPT. You can selectively access the Member Scratchpad when adding members of a Move Request.

Note: The Member Scratchpad uses temporary storage and is deleted when you terminate CA-PanAPT.

From the Development Facility panel, enter **MS** in the Enter Action field to display the Member Scratchpad panel, APIP400E.

Panel Field Descriptions

Line Command

DA

Enter “DA” to DELETE ALL entries. Enter DA on the Command line to delete all the rows in the Member Scratchpad table. When a delete is performed, all the rows in the Member Scratchpad table are deleted; however, the table is not deleted.

Action Commands

D

DELETE the entry from the MEMBER “SCRATCHPAD”. Enter D in the Act field for any members that you want to delete from the Member Scratchpad table.

B

BROWSE member from the associated LIBCODE LEVEL library. Enter B in the Act field for any members that you want to browse. A row is processed by entering the appropriate Browse Service for the Access Method and data set associated with the member, Library Code, and Level data set.

Final Panel Processing

After the processing of a selected action, the Member Scratchpad panel redisplays. Select another action and press ENTER to process or enter the END command (PF3) to return to the Development Facility panel.

Discontinue Processing

To discontinue the Browse action, enter the END command (PF3) to return to the Development Facility panel.

Using the Development Environment (MSL) Action

The Member Selection List panel represents all the members from various Library Codes and Levels that are associated with a specified Project Name. This panel provides a Development Environment for a Project through a host of commands (discussed later in this chapter).

You can access the Development Environment from the Development Facility panel by entering **MSL** in the Enter Action field and either:

- Enter a specific Change Name or Move Request Number in the Enter ===> field to display the Member Selection List panel, or
- Enter blanks in the Enter ===> field to display the Change, Move Selection Criteria panel.

See the following sections for instructions on how to use the Member Selection List panel and the Change, Move Selection Criteria panel.

Change, Move Selection Criteria Panel

Use the Change, Move Selection Criteria panel to create a Move Request Selection List. This list is generated according to a series of selection criteria that you enter. The selection criteria is saved to your ISPF Profile, so you can select similar Move Requests from session to session.

You can perform other Move Request functions directly from the Move Request Selection List or inquire on the status of Move Requests during the current move cycle. You can also browse an individual Move Request to check which members have been moved or select a Move Request for additional external processing.

From the Development Facility panel, enter **MSL** in the Enter Action field and blanks in the Enter Change Name or Move Request Number field to display the Change, Move Selection Criteria panel, APIP230.

Panel Field Descriptions

Range Criteria

Move Request Numbers (From - To)

Optional. Length: 1-6. Type: numeric.

Enter the range of Move Request Numbers you want to include in the Move Request Selection List. If no Move Request range is specified, the default is from 000001 to 999999.

Final move dates (From - To)

Optional. Format: mm/dd/yyyy, dd/mm/yyyy, or yyyy/mm/dd

Enter the date range when the members in the Move Requests are scheduled to be moved to their final destination level (typically production). You can copy the value in the From field to the To field by entering an equal sign (**=**) in the first position of the To field. If no final move date is specified, the default is from 01/01/1900 to 12/31/2099.

Next move dates (From - To)

Optional. Format: mm/dd/yyyy, dd/mm/yyyy, or yyyy/mm/dd

Enter the date range when the members in the Move Requests are scheduled to be moved to their next destination level (such as quality assurance). You can copy the value in the From field to the To field by entering an equal sign (**=**) in the first position of the To field. If no next move date is specified, the default is from 01/01/1900 to 12/31/2099.

Other Criteria

Change Name

Optional. Length: 1-16. Type: alphanumeric.

You can restrict the scope of the Move Request Selection List to Changes Names that match a pattern. The * and ? wildcard notation can be used. To select only unnamed Move Requests, leave this field blank. To select only named Move Requests, specify ?*. If you do not want to select by Change Name, specify *.

Note: The value of this field is not case sensitive.

Library Code/Subcode

Optional. Length: 1-7. Type: alphanumeric.

Enter the Library Code/Subcode of the Move Requests. Only Move Requests that use this Library Code/Subcode are included in the Move Request Selection List. You can narrow your selection by using the wildcard characters ? or *.

Member Name

Optional. Length: 1-10. Type: alphanumeric.

Enter the member name in the Library Code/Subcode specified. If you do not want to select a member name, leave this field blank. Only Move Requests that use the Library Code/Subcode specified and involve this member are included in the Move Request Selection List. You can narrow your selection by using the wildcard characters ? or *.

Originator

Optional. Length: 1-8. Type: alphanumeric.

Enter the user ID of the CA-PanAPT user. Only Move Requests that were added by this user ID are included in the Move Request Selection List. If you want to search for Move Requests assigned to your user ID, enter an equal sign (**=**) in the first position of this field. CA-PanAPT substitutes with your user ID. You can narrow your selection by using the wildcard characters ? or *.

Move Type

Optional. Length: 1. Type: alphanumeric.

Enter a valid move type of a Move processing cycle. Move types are defined by your site. Only Move Requests with the specified move type are included in the Move Request Selection List.

Project Name

Optional. Length: 1-16. Type: alphanumeric.

Projects are used by the Development Facility to identify development and work libraries with a Move Request.

You can restrict the scope of the Move Request Selection List to Move Requests that are associated with a specific Project by entering that Project Name in this field. If you leave this field blank, only Move Requests without Projects are included in the Move Request Selection List.

You can vary your selection by using the wildcard characters ? or * as follows:

- To select Move Requests without regard to Project Names, enter an *****.
- To select Move Requests that have a Project without regard to any specific project, enter **?***.

Held Move Requests

Optional. Length: 1. Type: alphanumeric.

You can restrict the scope of the Move Request Selection List to members that have restrictions preventing the close of the Move Request by entering any non-blank character in this field. If you leave this field blank, the scope of the Move Request is not restricted to these members.

A member with any of the following status values prevent the Move Request from being closed:

A

Member requires assignment, but it is not properly assigned.

I

Member has an unapproved Inventory Record.

V

Member was rejected by a site-defined Edit Exit or a site-defined Edit Exit could not be found.

Service Request

Optional. Length: 1-16. Type: alphanumeric.

You can restrict the scope of the Move Request Selection List to members that are associated with a specific Service Request by entering that Service Request in this field. If you leave this field blank, the scope of the Move Request is not restricted to these members. Do not use the * or ? wildcard characters because a Service Request might contain these.

Note: The value of this field is not case sensitive.

Additional Criteria

Optional. Length: 1. Type: alphabetic. Valid values: A - Approvals & Verifications, S - Status, or blank.

Enter **A** (Approvals and Verifications) to specify the Approvals and Verifications criteria to limit the selection of Move Requests. Or, enter **S** (Status) to specify a Status that is associated with a specific level to limit the selection of Move Requests.

Note: If you choose to specify the selection of Move Requests by Status and associated level, then the Status selections specified in the Approvals and Verifications criteria are overridden.

Approvals and Verifications Selection Criteria

After you select A (Approvals and Verifications), the following fields display:

Must satisfy all

Optional. Length: 1. Valid values: Y (Yes) or N (No).

Enter **Y** to include only the Move Requests that satisfy all the categories selected from the Approvals and Verifications categories. If **N** is specified, all Move Requests are included. This switch applies only to the Approvals and Verifications categories.

Select Move Verifications (Y, U, W, N, or S)
Select Move Approvals (Y, D, W, or N)
Select Move Bkot Approvals (Y, D, W, or N)

Optional. Length: 1-20. Type: alphabetic.

You can define a list of Move Requests based on the status of specific approvals for Moves or Backouts, and/or specific verifications for Close or Moves by entering one of the valid characters under the category number. The description of each character is shown below:

For Approvals:

Y

Yes, approved. Approval is required for this category, and it has been granted.

D

Denied. Approval is required for this category, but it has been denied.

W

Waiting for approval. Approval is required for this category, but the Move Request is waiting for the approval of this category. This includes Move Requests that have been granted approval, and those that have been denied approval for this category.

N

Not waiting for approval. Move Requests that are not waiting for approval of this category. This includes Move Requests that require this category and have been granted approval, and those that do not require this category.

For Verifications:

Y

Yes, verified. Verification is required for this category, and it has been verified.

U

Unverified. Verification is required for this category, but it has not been verified.

W

Waiting for verification. Verification is required for this category, but the Move Request is waiting for verification of this category. This includes Move Requests that have been verified, and those that have not been verified for this category.

N

Not waiting for verification. Move Requests that are not waiting for verification of this category. This includes Move requests that require this category and have been verified, and those that do not require this category.

S

Started. Verification has started on this Move Request. This means the verification procedure for this category is in progress for this Move Request.

Approvals and Verifications can only be granted when Move Requests are in particular Statuses. Only Move Requests in the required Status are considered when this selection is specified. The statuses corresponding to this selection criteria are:

Move Approvals	-	Awaiting Move approval (AW*)
Move BKot Approvals	-	Awaiting Bkot approval (AW*-B)
Start Verification	-	Being created (CRE)
Move Verification	-	Awaiting Move approval (AW*)

If no Approval or Verification categories are selected, these fields are not considered selection criteria.

Status Selection Criteria

Enter **S** (Status) to select Moves and Backout statuses. Each status is associated with a specific level except for Being Created (CRE) status and Deleted (DEL) status (for more information on the CRE and DEL statuses, see the "Move Requests" chapter). For example, if you want to include all Move requests with an AP status (Approved for Move), enter **X** under AP for each level defined. Likewise, to include all Move Requests at a specific level, enter **X** for the level (typically QA) under each status.

The following status identifiers display (the asterisk is replaced by the level suffix):

Moves:

AW*	Awaiting Approval
AP*	Approved for Move
SL*	Selected for Move
AM*	Awaiting Move
AE*	Awaiting External Processing
MV*	Moved to final level

Backout:

AW*-B	Awaiting Backout Approval
AP*-B	Approved for Backout
SL*-B	Selected for Backout
AM*-B	Awaiting Backout
AE*-B	Awaiting Backout External Processing
MV*-B	Backout Complete

Final Panel Processing

After you have specified the selection criteria, press ENTER to display the Move Request Selection List panel, described next.

Discontinue Processing

To discontinue the selection criteria, enter the **END** command (PF3) to return to the Development Facility panel.

Move Request Selection List Panel

From the Change, Move Selection Criteria panel, enter the desired selection criteria and press ENTER to display the Move Request Selection List panel, APIP8231.

Panel Field Descriptions

Action Commands

S or Sel

Select a Move Request for processing. Enter **S** or **Sel** on one Move Request entry to access the Member Selection List panel, provided that a Project is defined for this Move Request.

I or Inq

Display Move Request information. Enter **I** or **Inq** on one Move Request entry to display the Description of Move Request and Move Members (inquiry) panels.

Final Panel Processing

After you have completed the select processing, the Development Facility panel redisplays. Select another action and press ENTER to process or enter the **END** command (PF3) to return to the CA-PanAPT Main Menu.

After you have completed the inquiry processing, the Move Request Selection List panel redisplays. Select another action and press ENTER to process or enter the **END** command (PF3) to return to the Change, Move Selection Criteria panel for further processing.

Discontinue Processing

To discontinue the select processing, enter the **END** command (PF3) to return to the Development Facility panel.

To discontinue the inquiry processing, enter the **END** command (PF3) to return to the Move Request Selection List panel.

Member Selection List Panel

Use this panel to modify and move members to a test environment before you move them into the start of the migration path. The migration path can consist of a minimum of two levels (lowest level and final level). The lowest level being the start of the migration path, and the final level being the destination.

Before the Member Selection List panel displays, the last profiled Member Selection List Option request is automatically executed. See MSL Options (MO) for further details.

This panel provides three different modes in which to work in the Development Environment:

- Help
- Normal
- Expert.

Each mode is described in the topics that follow.

Help Mode

You can access the Member Selection List (Help, Right View) panel, APIP401A, from the Move Request Selection List panel or from the Development Facility panel. The panel shown below is in the Help mode "view." This view is intended for users to become familiar with all the available Line commands and Action commands.

This panel provides two different views in which to view information. To view additional information not displayed, such as the fields containing Description, Status, and so forth, use the Left/Right Scroll keys. Enter the **LEFT** command (PF11) to display the Member Selection List (Help, Left View) panel, APIP401D, shown next. Enter the **RIGHT** command (PF10) to redisplay the right view.

Panel Field Descriptions

Line Command

Required. Length: 1-3. Type: alphabetic.

blank

(Default) Selects which members of the MSL to add to the Move request.

S

Adds only members selected using the S select character to the Move Request.

A

Adds all members listed on the MSL to the Move Request, except members specifically excluded using the X select character.

END

Discontinues processing and return to the Member Moves panel.

select field

This unlabeled field is the first entry field on each member line.

Optional. Length: 1. Type: alphabetic.

blank

(Default) This field selects which members of the MSL are added to the Move Request.

S

Add this member to the Move Request when the A or S command is entered. Use S to add only a few of the listed members to the Move Request.

X

DO NOT add this member to the Move Request when the A or S command is entered. Use X when you want to add the majority of the listed members to the Move Request; use X to exclude the unwanted members.

Member Data

As many rows are displayed as fit on the panel. If the list contains more members, they can be scrolled using standard ISPF scrolling commands. The data displayed has been returned from the MSL exit program specified for this Library Code.

Note: The MSL Processing program does not validate any of these fields to ensure that they meet the specifications for the Library Code. Validation is performed upon return to the Member Moves panel. You can, however, update the fields on this panel before returning to the Member Moves panel.

Act

Optional. Length: 1. Type: alphabetic.

Enter an action that you want to perform on a specific entry in the MSL.

Appl

Display only. Displays the name of the Application belonging to the member.

LibCode

Display only. Displays the name of the Library Code (Migration Path) used by the member.

Env

Display only. Displays the name of the Environment belonging to the member.

Lang

Display only. Displays the Language Type of the member.

Member

Display only. Displays the name of the member.

Lvl?

Optional. Length: 1-3. Type: alphanumeric.

Enter the name of the level within the Library Code structure. This field can also be used as an input field for Browse when browsing other than the current work library. If you do not know the level name, enter an **?** or ***** in the Lvl? field to display the Level Selection List.

Description

Display only. Displays the description of the member. It is also used to display diagnostic error messages that can occur when an Action command is taken.

Development state

Display (left view) only. Displays the current development state of the member. For example, "Checked out," "Checked in," "Pending Check out," and so forth.

UserID

Display (left view) only. Displays the user ID of the user who performed the function displayed in the Development state field when applicable. For example, Checkout.

Status

Display (left view) only. Summarizes the use of Action commands. For example, "B" indicates the Browse action was selected.

Line Command Summary

All the Line commands that are available in the Development Environment are summarized below. See Line Commands later in this chapter for commands requiring a more detailed description.

CIA

Checkin ALL applies the CI (Checkin) action command to all the rows in the MSL table. Each row is processed as if the CI command was entered on each table row.

CIMA

Checkin/Migration ALL applies the CIM (Checkin to Migrate) action command to all the rows in the MSL table. Each row is processed as if the CIM command was entered on each table row.

The CIMA command attempts to move all Checked out members in the MSL to the lowest level in the migration path. All members moved must be assigned, that is the members must have an owner. If a member is not assigned, you can assign an owner by using the Modify Members (MM) command.

Use this action when you complete the processing of all functions and are ready to System Test, QA Test, move to Production, or move to any level above Development.

CLA

Compile/Link ALL applies the CL (Compile/Link) action command to all the rows in the MSL table. Each row is processed as if the CL command was entered on each table row.

COA

Checkout ALL applies the CO (Checkout) action command to all the rows in the MSL table. Each row is processed as if the CO command was entered on each table row.

F

Find searches for the first occurrence of the specified string. It uses the information entered as a string. If the string contains blanks, you must put the string in quotes. When a table row is found that matches the string, it becomes the top row of the table display.

HM

Help Mode displays the Member Selection List panel with all the Line commands and Action commands. This view is intended for users to become familiar with all the available Line commands and Action commands.

L

Locate searches for the first occurrence of the specified member name. You must enter the full member name. Wildcard characters are not valid and cannot be used when specifying a member name. When a member name is found that matches the string, it becomes the top row of the table display.

MM

Modify Members enables manipulation of any member associated with a Project. The MM command displays the Modify Members panel where you can assign, add, or delete members. See Modify Members (MM) later in this chapter for further details.

MO

MSL Options enable MSL content manipulation. The MO command displays the Member Selection List Options panel where you can sort the MSL, display members in specific statuses, and print the MSL. See MSL Options (MO) later in this chapter for further details.

NM

Normal Mode displays the Member Selection List panel with the Line commands and Actions commands used by the average user. You can modify this panel to display the Line commands and Action commands that are normally used at your site. See Normal Mode later in this chapter for further details.

R

Reset Description restores the original Description field on the MSL for each member that might have had messages from a previous action.

S

Show displays the data sets that are used in your current development environment. See Show (S) later in this chapter for further details.

XM

Expert Mode displays the Member Selection List panel without the Line commands and Action commands. This view is for users that already know all the possible Line commands and Action commands. See Expert Mode later in this chapter for further details.

Action Command Summary

All the Action commands that are available in the Development Environment are summarized below. See the Action Commands topic later in this chapter for commands requiring a more detailed description.

IA

Add inventory allows inventory information to be added for a member.

IC

Change inventory allows existing inventory information to be modified. If the inventory is already flagged as approved, you can try using the IP command to make the change.

IV

View inventory allows inventory information to be viewed for a member.

IP

Approve inventory allows inventory information to be approved for a member.

B

Browse retrieves a member from a selected Library Level into an ISPF Browse Session. You can enter **B** on more than one entry, and the members are processed one at a time.

CAN

Cancel Pending turns off the pending indicator to instruct CA-PanAPT that the member is ready for the next action.

Perform this action when a problem is resolved manually to instruct CA-PanAPT that the member that failed the last function is now ready for further processing.

CC

Cancel Checkout attempts to cancel members that are checked out for Development. After CIM (Checkin to Migrate) is performed, the members are no longer considered checked out.

CD

Cancel Development cancels all the member's references from the Development Environment.

CI

Checkin attempts to check in (copy) a member to the associated development test level. You can enter **CI** on more than one entry. The Checkin Member Selection List panel displays with all the successfully processed members. See Checkin (CI) later in this chapter for further details.

CIM

Checkin to Migrate attempts to move a member to the lowest library level in the migration path. A member must be assigned, that is the member must have an owner. If a member is not assigned, you can assign an owner by using the Modify Members (MM) command.

Use this action when you complete the processing of all functions and are ready to System Test, QA Test, move to Production, or move to any level above Development.

C/L/CL

Compile/Link generates a batch job that compiles, links, or compiles and links selected members. You can enter **C**, **L**, or **CL** on more than one entry. A Compile/Link Member Selection List panel displays with all the successfully processed members. See Compile and Link (C/L/CL) later in this chapter for further details.

CO

Checkout attempts to check out (copy) a member to the associated development test level. You can enter **CO** on more than one entry. The Checkout Member Selection List panel displays with all the successfully processed members. See Checkout (CO) later in this chapter for further details.

CP

Compare generates a batch job that compares members from two existing library levels and produces a report of the line-by-line differences in an output file. You can perform further processing of the output file by using the OCP action. See Compare (CP) later in this chapter for further details.

E

Edit retrieves a member from a Development Library into an ISPF Edit Session. You can enter **E** on more than one entry, and the members are processed one at a time.

H

History displays all the information available for a member. See History (H) later in this chapter for further details.

LO

Listing Options (if available) displays an MSL of existing listings for a member. The listings can be browsed, browsed in HEX Dump Mode, or printed.

MG

Merge generates a batch job that merges members from three existing library levels and produces a report of the line-by-line processing in an output file. You can perform further processing of the output file by using the OMG action. See Merge (MG) later in this chapter for further details.

OCP

Output of Compare displays the Output of Compare Options panel that enables you to process the output listing produced by the CP action. See Output of Compare (OCP) later in this chapter for further details.

OMG

Output of Merge displays the Output of Merge Options panel that enables you to process the output listing produced by the MG action. See Output of Merge (OMG) later in this chapter for further details.

POST

Post Pending turns on the pending indicator to instruct CA-PanAPT that the member did not complete the last action.

This action is performed when a failure occurred before CA-PanAPT could mark a function as pending. The problem is usually resolved manually or otherwise, therefore, the member that failed must be marked as pending.

U

Utilities provides access to certain utility functions for the selected member and associated Development Library's Access Method. Depending on the Access Method, general utility functions are provided for the copying, renaming, and deleting of a selected member. In addition, special utility functions are provided for CA-Librarian and CA-Panvalet. See Utilities (U) later in this chapter for further details.

X

Cross Reference (if available) displays a report listing items such as what source created an object, the processing date and time, associated data set names, and so forth.

Final Panel Processing

After the specified Line command or Action command has completed, the Member Selection List panel redisplays. Select another command and press ENTER to process or enter the END command (PF3) to return to the Development Facility panel.

Discontinue Processing

To discontinue processing, enter the END command (PF3) to return to the Development Facility panel.

Normal Mode

This panel allows more table rows to be displayed than in the Help Mode, shown previously.

From the Member Selection List (Help Mode) panel, enter **NM** on the Command line to display the Member Selection List (Normal, Right View) panel, APIP401B.

To view more information, enter the **LEFT** command (PF11) to display the Member Selection List (Normal, Left View) panel, APIP401E. Enter the **RIGHT** command (PF12) to redisplay the right view panel.

See the corresponding sections under the topic Help Mode under Member Selection List Panel earlier in this chapter.

Panel Field Descriptions, Final/Discontinue Processing

See the corresponding sections under the topic Help Mode under Member Selection List Panel earlier in this chapter.

Expert Mode

This panel allows more table rows to be displayed than in the Normal Mode, shown previously.

From the Member Selection List (Help Mode) panel, enter **XM** on the Command line to display the Member Selection List (Expert, Right View) panel, APIP401C.

To view more information, enter the **LEFT** command (PF11) to display the Member Selection List (Expert, Left View) panel, APIP401F. Enter the **RIGHT** command (PF12) to redisplay the right view panel.

Panel Field Descriptions, Final/Discontinue Processing

See the corresponding sections under the topic Help Mode under Member Selection List Panel earlier in this chapter.

Line Commands

This section provides detailed instructions on using the following Line commands:

- Modify Members (MM)
- MSL Options (MO)
- Show (S).

See Line Command Summary earlier in this chapter for a summary of all the available Line commands.

Modify Members (MM)

This Modify Members panel lets you view or edit the list of members associated with a Project. When editing, commands are available allowing you to add, delete, change, or assign members for the Project.

From the Member Selection List panel, enter **MM** on the Command line to display the Modify Members panel, APIP414Z.

Panel Field Descriptions

Line Commands

A or ADD

Adds a member to the Project. Depending upon the Library Code, Inventory, and Assignment options, the Inventory AUTOADD panel can be displayed and Assignment processing can be performed. Member Restriction Flags are set immediately on the newly added member. To add new member data, you must enter **A** or **ADD** on the Command line to display the Add Member Moves panel for processing. See Entering New Member Data in the "Move Requests" chapter for further details about the Add Member Moves panel.

MSL

Optional. Length: 3. Valid values: LIB, INV, IA, MR, MS, or blank. Default: blank.

This field requests CA-PanAPT to display a Member Selection List (MSL). The value entered for this field determines which type of MSL to build. When one of the following MSL types is requested, the MSL Selection Criteria panel displays.

LIB

An MSL is to be prepared based on members in a specific library. The Library MSL Selection Criteria panel, APIP699, displays.

INV

An MSL is to be prepared based on information stored in the CA-PanAPT Inventory file. The Inventory Selection Criteria panel, APIP153, displays.

IA

An MSL is to be prepared based on the results of a CA-Pan/LCM Configuration Manager Impact Analysis of the Move Request. This lets you add members to the Move Request that are impacted by other members on your Move Request. The Impact Analysis MSL Options panel, APIP155, displays.

MR

An MSL is to be prepared based on the contents of another Move Request. This can be useful if you are adding members to a Rework Move Request or if you are combining multiple Move Requests into one. The Move Request Member MSL Selection Criteria panel, APIP152, displays.

MS

An MSL is to be prepared from the current contents of the Member Scratchpad created by the Member Browse function of the Development Facility. This can be useful if you are adding members from several different Library Codes that are associated with a particular Project or Move Request. The Member Scratchpad MSL Selection Criteria panel, APIP150Y, displays.

Power Input

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Y

When the Add Member Moves panel is entered (using the ADD command), the Power Input mode is active. This option lets you add members to the Project more quickly when using the Add Member Moves panel. When initially active, the default Library Codes from the Control File System record are displayed. You can also activate Power Input mode on the Add Member Moves panel. See Entering New Member Data later in this chapter for further details about the Add Member Moves panel and the Power Input mode.

N

When the Add Member Moves panel is entered (using the ADD command), the Power Input mode is inactive.

Change Defaults

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Y

Provides the ability to supply default field values to save you input time. Use them to specify default values that can be copied into the lower panel fields by entering an equal sign (**=**) into the line item fields.

The POWER INPUT Options panel, APIP814P, displays to provide for the input for the following fields:

Member

Optional. Length: 1-10. Type: alphanumeric.

The value that you place in this field is substituted for each equal sign (=) in the Member columns below. You can enter a complete or partial name. The default member value is used only where you enter an equal sign below the Member field.

User-Data

Optional. Length: 1-8. Type: alphanumeric.

The value that you place in this field is substituted for each equal sign (=) in the User-Data columns below. You can enter complete or partial User-data. The default User-Data value is used only where you enter an equal sign below the User-Data field.

In the User-Data columns, characters following the equal sign are appended to the end of the value entered in the Default User-Data field. If you use the equal sign, it must be the first character in the field.

LIB/Subcode

Optional. Length: 1-7. Type: alphanumeric.

The value that you place in this field (all seven characters) is substituted for each equal sign (=) in the Library Code/Subcode column below. The default Library Code/Subcode value is used only where you enter an equal sign below the Library Code/Subcode field.

N

The defaults are not changed.

Sort

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Y

The members are sorted by the current Order (field name) specifications set by the Order action of the Development Facility. See MSL Options (MO) later in this chapter.

N

No sorting is required.

This field allows the members listed on the panel to be re-sorted. This is useful after selecting members from an MSL or after adding members.

Early-Stop Level

Display only. If this Move Request is to stop before what would normally be its final destination level, the level at which it ends is shown here.

Action Commands

When Power Input is not enabled, you can perform the following types of Action command processing:

- Change a line by typing over the member names, User-data, or Library Code. You can type C in the Act Cmd column, but this is not required.
- Delete a line by typing DEL in the Act Cmd column. When you enter DEL or C, the member being deleted from the Move Request goes through Reassign/Release Processing. For further information, see Reassign/Release Processing earlier in this chapter.
- Assign a member's Inventory Record to yourself by typing S in the Act Cmd column. If the member is already assigned to a user, but not to a Move Request, the Assigned-To Move Request is filled in with the number of the Move Request you are updating. You must not change any information when you are assigning the member.
- Inventory maintenance lets you change (IC), add (IA), view (IV), or approve (IP) an Inventory Record for a member by typing the desired command in the Act Cmd column next to the member.
- Clear a member's Concurrent Development flag by typing CDC in the Act Cmd column. If the member has unapproved inventory, the C flag is replaced with the I flag; otherwise it is blank. You must not change any information when you do this.

- Set a member's Concurrent Development flag by typing CDS in the Act Cmd column. You should not normally do this, CA-PanAPT sets the C flag automatically. This Action command is provided so that you can undo an erroneous CDC action command. You must not change any information when you do this.
- Purge a member by typing PUR in the Act Cmd column. Purge is the same as delete except that it also removes the member from the starting level library. Purge is only valid for Move Requests in Being Created status. Furthermore, not all Library Codes honor purge; they require Member Existence exits that are capable of actually deleting members. The PDS member existence exit APAS0200 honors purge. Like delete, when you purge a member, it goes through Reassign/Release processing.

If you use action commands DEL or PUR to delete a member name from a Move Request, the member's assignment is affected:

- If the member name/Library Code is not found on any other Move Request, the member's assignment is released and the assigned-to Move Request number is set to blanks.
- If the member name/Library Code is present in other Move Requests, the member's assigned-to Move Request number is set to the Move Request that contains the member and has the earliest scheduled move date.

If you use action command C to change a member name or its Library Code, the member's assignment is affected:

- If the member name or Library Code changes, the old member's assign\-ment release is based on the same conditions listed for the action command DEL in the previous paragraph.
- The new member name/Library Code causes the new member's assigned-to Move Request number to be set to the Move Request to which the member was just added, depending on how auto-assignment is set in the Library Code for the new member.

If you use a non-blank line for a Delete, the line you use is deleted if you do not change the To Member Name or the Library Code. If you change either or both of these fields, the member to which you change them is deleted, and the original member is not affected.

If you try to assign this member to yourself, assignment takes place as described in the "Inventory Records" chapter. If you try to assign and retrieve a member, assignment and retrieve takes place as described in the "Inventory Records" chapter.

If you are changing a Move Request that has been added to the Pending file through the Batch Add Interface, each member in that Move Request is processed as though the action command C was entered on each Line command. Processing continues until all members of this Move Request have been successfully verified.

Use the **UP** (PF7) and **DOWN** (PF8) commands to scroll the display.

Status

Display only. The current status of the members for the Move Request displays.

- During Move Request Maintenance, the Status field can contain the flags A, I/C, V, and *. These four codes indicate members that have restrictions that prevent closing the Move Request. Status flags set prior to Close are:

A

Member has not been properly Assigned, Move Request cannot be closed or moved.

I

Inventory Record has not been Approved, Move Request cannot be closed.

C

The same member was moved on another Move Request since it was added to this Move Request. Changes made concurrently to the module might need to be merged into this Move Request's copy. The Move Request cannot be closed or moved until the CDC action command is used to clear the C flag.

Notes: The C flag masks the I flag, so after clearing the C flag, the I flag might appear if it was set but not visible.

Also note that the C flag is only set if you indicated in the Control File System Information record that Concurrent Development assistance is enabled.

V

The Member Existence Exit named in the Library Code rejected the member, the Move Request cannot be closed.

*****

The member is currently undergoing development using the CA-PanAPT Development Facility.

- In addition, during the Move Processing Cycle, the Status field can contain the flags M, E, S, or W. These four codes allow you to monitor the progress of the Move Request as it is processed. The status flags set during Move Processing are:

M

Move processing has started for the Move Request, but this member has not been moved yet.

E

External processing required for this member.

S

External processing has started for this member.

W

Member has been selected for move processing, but remodeling has not completed.

CA-PanAPT sets the status flags to alert you to resolve these error conditions. These flags are reset at the end of each change session.

The status flags, with the exception of the C flag, are also reset at Move Closure. Prior to formal Closure, you can do a Trial or Verification Close from the Move Request Closure panel, APIP190. This process checks each member and sets the member and Move Request flags according to the conditions present at that time. This process allows the owner to confirm the status of each member in preparation for formal Closure. You can periodically monitor and address any outstanding problems.

Action Command Processing

When Power Input is not enabled, you can perform the following types of Action

command processing:

- Change a line by typing over the member names, User-data, or Library Code. You can type C in the Act Cmd column, but this is not required.
- Delete a line by typing DEL in the Act Cmd column. When you enter DEL or C, the member being deleted from the Move Request goes through Reassign/Release Processing. For further information, see Reassign/Release Processing earlier in this chapter.
- Assign a member's Inventory Record to yourself by typing S in the Act Cmd column. If the member is already assigned to a user, but not to a Move Request, the Assigned-To Move Request is filled in with the number of the Move Request you are updating. You must not change any information when you are assigning the member.
- Inventory maintenance lets you change (IC), add (IA), view (IV), or approve (IP) an Inventory Record for a member by typing the desired command in the Act Cmd column next to the member.
- Clear a member's Concurrent Development flag by typing CDC in the Act Cmd column. If the member has unapproved inventory, the C flag is replaced with the I flag; otherwise it is blank. You must not change any information when you do this.
- Set a member's Concurrent Development flag by typing CDS in the Act Cmd column. You should not normally do this, CA-PanAPT sets the C flag automatically. This Action command is provided so that you can undo an erroneous CDC action command. You must not change any information when you do this.
- Purge a member by typing PUR in the Act Cmd column. Purge is the same as delete except that it also removes the member from the starting level library. Purge is only valid for Move Requests in Being Created status. Furthermore, not all Library Codes honor purge; they require Member Existence exits that are capable of actually deleting members. The PDS member existence exit APAS0200 honors purge. Like delete, when you purge a member, it goes through Reassign/Release processing.

If you use action commands DEL or PUR to delete a member name from a Move Request, the member's assignment is affected:

- If the member name/Library Code is not found on any other Move Request, the member's assignment is released and the assigned-to Move Request number is set to blanks.
- If the member name/Library Code is present in other Move Requests, the member's assigned-to Move Request number is set to the Move Request that contains the member and has the earliest scheduled move date.

If you use action command C to change a member name or its Library Code, the member's assignment is affected:

- If the member name or Library Code changes, the old member's assignment release is based on the same conditions listed for the action command DEL in the previous paragraph.
- The new member name/Library Code causes the new member's assigned-to Move Request number to be set to the Move Request to which the member was just added, depending on how auto-assignment is set in the Library Code for the new member.

If you use a non-blank line for a Delete, the line you use is deleted if you do not change the To Member Name or the Library Code. If you change either or both of these fields, the member to which you change them is deleted, and the original member is not affected.

If you try to assign this member to yourself, assignment takes place as described in the “Inventory Records” chapter. If you try to assign and retrieve a member, assignment and retrieve takes place as described in the “Inventory Records” chapter.

If you are changing a Move Request that has been added to the Pending file through the Batch Add Interface, each member in that Move Request is processed as though the action command C was entered on each Line command. Processing continues until all members of this Move Request have been successfully verified.

Use the UP (PF7) and DOWN (PF8) commands to scroll the display.

From Starting Level

There are ten rows available on this panel for the entry of member and User-data. You can enter member and User-data on one or more of the rows. A blank field in this column indicates that no User-data is needed for this member.

You can enter an equal sign (**=**) in the first position of any field in this column and it is replaced with the default member, User-data or Library Code/Subcode specified at the top of the panel. If you use the equal sign, you must specify a default member, User-data, or Library Code/Subcode value above. If you do not, CA-PanAPT gives you an error message. CA-PanAPT appends characters that appear after the equal sign to the end of the default value to create the new value. CA-PanAPT does field edits on the new value after substituting the default value.

Member

Required. Length: 1-10. Type: alphanumeric.

Enter the member name of the member on the Starting Level Library you want to move. The Library Code typed in the same row dictates the allowed length and characteristics of member names.

User-Data

Required, optional, or invalid depending on the Library Code Specifications. Length: 0-8. Type: alphanumeric.

Enter any User-data for the member on the Starting Level Library you want to move. User-data can be any additional information about the member. The Library Code entered on the same line dictates the allowed length and characteristics of User-data.

To Destination Levels

There are ten rows available on the panel for the entry of member and User-data. You can enter member and User-data on one or more of the rows.

You can enter an equal sign (**=**) in the first position of any field in this column. It is replaced with the default value specified at the top of the panel. If you use the equal sign, you must specify a default member or User-data value above. If you do not specify default member or User-data, CA-PanAPT displays an error message. CA-PanAPT appends characters that appear after the equal sign to the end of the default member or User-data value to create the new value. CA-PanAPT edits fields on the new value after substituting the default value.

If you enter a greater-than sign (>) in the first position, the From Starting Level Member or User-data field is copied to this field. CA-PanAPT appends characters that appear after the greater-than sign to the end of the copied value to create the new value.

Member

Required. Length: 1-10. Type: alphanumeric. Default: from test member.

Enter the member name for all levels beyond the starting test level.

The Library Code typed on the same line dictates the allowed length and characteristics of member names. If you leave this field blank or precede it with an equal sign, the From Member name is used as the default name. Any characters you type following the equal sign are appended to the From Member name to create the To Member name.

User-data

Required, optional, or invalid depending on the Library Code Specifications. Length: 0-8. Type: alphanumeric.

Enter the User-data for the member for all levels beyond the starting test level. User-data can be any additional information about the member. The Library Code typed on the same line dictates the allowed length and characteristics of User-data.

Library CODE / SUB

Required. Length: 1-7. Type: alphanumeric and national characters.

This column displays all of the Library Code/Subcodes associated with the members listed on the Move Request that you selected on the Move Request Maintenance panel. You can leave the displayed Library Code/Subcodes or change them.

Note: If you leave the Library Code/Subcode blank, CA-PanAPT copies it from the immediately preceding line. If the immediately preceding Library Code is blank, CA-PanAPT displays an error message indicating that a Library Code is required.

MSL Options (MO)

The Member Selection List Options panel lets you define the contents of the Development MSL and to save the MSL options to your ISPF Profile data set. You can also order the MSL and print the MSL.

From the Member Selection List panel, enter **MO** on the Command line to display the Member Selection List Options panel, APIP401M.

Panel Field Descriptions

Profile last MO request

Enter **Y** to select the Profile MO request option. This causes the last Select (field) requests (and Order/Print MSL requests) to be saved in your ISPF Profile data set. Upon entry to this panel (APIP401M), the profiled values are used as initial values for these fields. Also, when the Development Facility MSL is initially entered, the last MO request is automatically executed before the MSL is displayed.

If there was no Select option profiled or all the Select fields were Profiled with blanks, the MO option is not automatically executed.

Order the MSL

Enter **Y** to select the order in which the MSL rows appear. After the MSL content selections have been processed, the Member Selection List Order Options panel displays. See Member Selection List Order Options Panel later in this chapter for further details.

Print the MSL

Enter **Y** to print the MSL. After the MSL content selections have been processed, the Member Selection List Print Options panel displays. See Member Selection List Print Options Panel later in this chapter for further details.

Select

Enter **S** to select an MSL content option to include in the re-construction of how you want the MSL to appear. You can select more than one MSL content option.

UserID

Enter a specific user ID or * to designate any user ID.

Final Panel Processing

After you have entered all selections and pressed ENTER:

- The MSL is re-constructed according to the MSL content options.
- If Order the MSL was selected, the Member Selection List Order Options panel displays for further processing.
- If Print the MSL was selected, the Member Selection List Print Options panel displays for further processing.

When all processing is complete, the Member Selection List Options panel redisplays.

Discontinue Processing

To discontinue (cancel) the MO, Order, or Print MSL commands, enter the **END** command (PF3) to return to the Member Selection List Options panel.

Member Selection List Order Options Panel

The Member Selection List Order Options panel allows the sorting of the MSL in many different ways for better viewing. There are five fields that can be sorted in various order and sequence by using the Sort/Sequence Indicators on each field.

The Sort and/or Sequence of the MSL applies only while you are in the Member Selection List Options panel. However, you can elect to Profile your last specification.

From the Member Selection List Options panel, enter **Y** in the Order the MSL field to display the Member Selection List Order Options panel, APIP401O.

Panel Field Descriptions

Sort Order

Optional. Valid values: 0, 1, 2, 3, 4, or 5.

Enter **1** thru **5** to indicate the order in which to sort and display the fields. If you do not want to include a field in the sort, enter **0**.

Sequence

Optional. Valid values: A or D.

Enter **A** to indicate ascending sort sequence or **D** to indicate descending sort sequence in which you want the selected fields to be sorted and displayed.

Appl

This is the Application field on the Member Selection List panel.

Libcode

This is the LibCode field on the Member Selection List panel.

Env

This is the Environment field on the Member Selection List panel.

Lang

This is the Language field on the Member Selection List panel.

Member

This is the Member field on the Member Selection List panel.

Profile

Valid values: Y, N, or blank.

Enter **Y** to copy the current Sort/Sequence settings to your Profile data set and use as the default when the Member Selection List is constructed and displayed. If you do not want to copy the Sort/Sequence settings to your Profile data set, enter **N**.

Final Panel Processing

After you have entered all specifications and pressed ENTER:

- The re-constructed Member Selection List is sorted according to the specified criteria.
- If Print the MSL was selected on the Member Selection List Options panel, the Member Selection List Print Options panel displays for further processing.

When all processing is complete, the Development Facility panel redisplays.

Discontinue Processing

To discontinue (cancel) the Order MSL command, enter the **END** command (PF3) to return to the Member Selection List panel.

Member Selection List Print Options Panel

The Member Selection List Print Options panel allows the setting of print options for the report that you want to print.

From the Member Selection List Options panel, enter **Y** in the Print the MSL field to display the Member Selection List Print Options panel, APIP414R.

Panel Field Descriptions

Report Type

Required. Valid value: STANDARD.

Currently the only option is STANDARD, which is 133 characters per line.

Line per page

Optional. Numeric range: 1-60. Type: numeric. Default: 60.

Enter the number of lines to print on a page. The maximum lines per page is 60.

Detail Line Grouping

Optional. Numeric range: 1-60. Type: numeric. Default: 5.

Enter the number of lines to group together. A blank line is used to separate a grouping of lines. Maximum is 60, which is equivalent to single spacing.

Printer destination

Optional. Length: 1-8. Type: alphanumeric. Default: spaces (none).

Enter a valid JES printer ID.

SYSOUT CLASS

Optional. Length 1. Type: alphanumeric. Default: space.

Enter a valid JES SYSOUT class.

Show (S)

The Show Selection panel lets you select and display the data set names and library types of members that are Checked Out.

From the Member Selection List panel, enter **S** or **Show** on the Command line to display the Show Selection panel, APIP414S.

Panel Field Descriptions

Request

Data set name and type (PDS, CA-Librarian or CA-Panvalet) Enter **1** on the Command line to display the Show Data Set Names panel.

Final Panel Processing

After you enter 1 and press ENTER, the corresponding Show Data Set panel displays.

Discontinue Processing

To discontinue (cancel) the Show command, enter the **END** command (PF3) to return to the Member Selection List panel.

Show Data Set Panel

The Show Data Set panel displays a table of all the development data sets associated with members in a Project that have been checked out.

From the Show Selection panel, enter **1** on the Command line to display the Show Data Set panel, APIP415A.

Final Panel Processing

You can scroll through the table to review all the rows.

Discontinue Processing

To discontinue reviewing the Show Data Set panel, enter the **END** command (PF3) to return to the Member Selection List panel.

Action Commands

This section provides detailed instructions on using the following commands:

- Checkin (CI)
- Checkout (CO)
- Compare (CP)
- Compile and Link (C/L/CL)
- History (H)
- Merge (MG)
- Output of Compare (OCP)
- Output of Merge (OMG)
- Utilities (U).

See Action Command Summary earlier in this chapter for a summary of all the Action commands.

Checkin (CI)

The Checkin Processing Options panel lets you specify options and overrides for all the members being checked in. Use the scroll feature to move forward and backward through the Member List.

From the Member Selection List panel, enter **CI** in the Act field of the desired row to display the Checkin Processing Options panel, APIP712A.

Panel Field Descriptions

Enter JOB statements

Required. Length: 1-72. Type: alphanumeric.

Enter up to four JOB CONTROL statements. These statements precede the JCL created by the Checkin model(s). Unless your models generate JOB statements, you must enter at least one // JOB CONTROL statement.

Number of Members per Job

Optional. Length: 1-2. Type: numeric.

If you want to limit the number of members grouped together per job, specify the value here. If left blank, the default is 25 members per job. If you experience system 322 abends (too much CPU time) when checking in multiple members, reducing this value can correct this.

Lib Code

Display only. Displays the member's associated Library Code name.

Member

Display only. Displays the name of the member being checked in. It is the same as the To Member on the Move Request (Project).

From Data

Optional. Length: 1-8. Type: alphanumeric. Default: null ("").

This field is provided to pass data to the Checkin Model. The value of this field is accessible through the $FROMDATA System Modeling Keyword. The data is intended to be associated with the member on the origin library.

To Data

Optional. Length: 1-8. Type: alphanumeric. Default: null ("").

This field is provided to pass data to the Checkin Model. The value of this field is accessible through the $TODATA System Modeling Keyword. The data is intended to be associated with the member on the destination library.

Line Commands

S

Start. Enter S on the Command line to start Checkin model processing. Only the rows of the table marked with the S (select) action command are processed.

A

All. Enter A on the Command line to start Checkin model processing on all rows of the table except those marked with the X (exclude) action command.

All rows including those that are not marked (blank) are processed.

Action Commands

S

Select. The S action marks the row eligible for Checkin model processing when the S Line command is entered.

X

Exclude. The X action marks the row not eligible for Checkin model processing when the A Line command is entered.

Final Panel Processing

After you have entered the JOB statements and Checkin processing options, enter the **A** or **S** command and press ENTER to start the Checkin.

Discontinue Processing

To discontinue (cancel) the Checkin action at any time without starting the Checkin, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Checkout (CO)

The Checkout Processing Options panel lets you specify options and overrides for all the members being checked out. Use the scroll feature to move forward and backward through the Member List.

From the Member Selection List panel, enter **CO** in the Act field of the desired row to display the Checkout Processing Options panel, APIP711A.

Panel Field Descriptions

Enter JOB statements

Required. Length: 1-72. Type: alphanumeric.

Enter up to four JOB CONTROL statements. These statements precede the JCL created by the Checkout model(s). Unless your models generate JOB statements, at least one // JOB CONTROL statement must be entered.

Number of Members per Job

Optional. Length: 1-2. Type: numeric.

If you want to limit the number of members grouped together per job, specify the value here. If left blank, the default is 25 members per job. If you experience system 322 abends (too much CPU time) when checking in multiple members, reducing this value can correct this.

Checkout From Lvl

Required. Length: 1-4. Type: alphabetic.

This field determines the origin of the requested From Member name. If the member has been checked in before on this Move Request (Project), enter the valid value level used by the member's Library Code and the development level. This field is filled in for you automatically. CA-PanAPT searches from the Development Test level up through your highest migration level looking for the member and supplies the first level that it finds for the member. If the member is not found, the level is blank, and the Checkout From Type value is ADD. If CA-PanAPT cannot search for the member because its access method does not have a browse exit defined, the highest active level defined to the Library Code is filled in. A blinking asterisk appears to the right of the level to indicate this.

Checkout From Type

Optional. Length: 1-4. Valid values: BKUP, BU, U, BKOT, BO, O, or ADD.

This field further determines the origin of the requested From Member name by allowing you to specify the levels Backup (BKUP, BU, U) or Backout (BKOT, BO, O) Libraries. If not specified, the primary library for the level is the origin of the Checkout. You can also specify a value of ADD indicating that you are adding a new member. When you specify ADD, the Checkout From Lvl field must be blank. Only specify ADD if your Checkout models support it. They must add a prototype member to the test library. The distributed PDS, CA-Panvalet, and CA-Librarian Retrieve models all support this.

From Member

Display only. Displays the name of the requested member to use for the copy utility.

From Data

Optional. Length: 1-8. Type: alphanumeric. Default: null ("").

This field is provided to pass data to the Checkout model. The value of this field is accessible through the $FROMDATA System Modeling Keyword.

To Member

Optional. Length: 1-10. Type: alphanumeric.

Determines the name of the copied member within the starting library. The name defaults to the From Member name. This member must not already exist in the starting library unless the Replace Member option is Y; otherwise, the Checkout JOB fails.

To Data

Optional. Length: 1-8. Type: alphanumeric. Default: null ("").

This field is provided to pass data to the Checkout model. The value of this field is accessible through the $TODATA System Modeling keyword. This data is intended to be associated with the To Member name.

Rep

Required. Length: 1. Valid values: Y or N. Default: N.

Enter Y to allow an existing To Member to be replaced on the starting library or enter N to prohibit a replace.

Lib Code

Display only. Displays the member's associated Library Code name.

Line Commands

S

Start. Enter S on the Command line to start Checkout model processing.Only the rows of the table marked with the S (select) action command are

processed.

A

All. Enter A on the Command line to start Checkout model processing on all rows of the table except those marked with the X (exclude) action command. All rows including those that are not marked (blank) are processed.

Action Commands

S

Select. The S action marks the row eligible for Checkout model processing when the S Line command is entered.

X

Exclude. The X action marks the row not eligible for Checkout model processing when the A Line command is entered.

Final Panel Processing

After you have entered the JOB statements and Checkout processing options, enter the **A** or **S** command and press ENTER to start the Checkout.

Discontinue Processing

To discontinue (cancel) the Checkout action at any time without starting the Checkout, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Compare (CP)

The Compare Level Selection List panel lets you select the level inputs for the generation of a batch Compare JOB stream. The selection list represents all data sets from the primary levels in which the associated member was found to physically exist. Optionally, the Backup and/or Backout levels can also be searched for member existence.

From the Member Selection List panel, enter **CP** in the Act field of the desired row to display the Compare Level Selection List panel, APIP450A.1.

Panel Field Descriptions

Search BKUP

Optional. Length: 1. Valid values: Y or N. Default: N.

Enter Y to initiate a member existence search of all Backup libraries associated with the Library Code. If the requested member is found in any of the Backup libraries, the corresponding data set selection row is inserted in the table display. If you enter N, a Backup library search is not initiated.

Note: If no Backup libraries are currently defined in the Library Code, a diagnostic error message is issued.

Search BKOUT

Optional. Length: 1. Valid values: Y or N. Default: N.

Enter Y to initiate a member existence search of all Backout libraries associated with the Library Code. If the requested member is found in any of the Backout libraries, the corresponding data set selection row is inserted in the table display. If you enter N, a Backout library search is not initiated.

Note: If no Backout libraries are currently defined in the Library Code, a diagnostic error message is issued.

Action Commands

1

Enter 1 to identify the selected row as the level data set that contains the member with the NEW source. The NEW source member is used to compare against the OLD source member.

2

Enter 2 to identify the selected row as the level data set that contains the member with the OLD (unmodified) source. The NEW source member is used to compare against the OLD source member.

Final Panel Processing

After the NEW and OLD source members have been identified, press ENTER to display the Compare Processing Options panel for further processing.

Discontinue Processing

To discontinue (cancel) the Compare action at any time without starting the Compare, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Compare Processing Options Panel

The Compare Processing Options panel lets you specify options and overrides for all the members being Compared. Use the scroll feature to move forward and backward through the Member List.

From the Compare Level Selection List panel, enter **1** and **2** in the Act field of the desired rows to display the Compare Processing Options panel, APIP714.

Panel Field Descriptions

Enter JOB statements

Required. Length: 1-72. Type: alphanumeric.

Enter up to four JOB CONTROL statements. These statements precede the JCL created by the Checkout model(s). Unless your models generate JOB statements, at least one // JOB CONTROL statement must be entered.

Member

Display only. Displays the name of the member being Compared. It is the same as the Member field on the Member Selection List panel.

Type

Display only. This field displays the NEW source (1st) and OLD source (2nd) input files and associates them with the corresponding data set names of the selected library levels.

Data set name of the input libraries

Display only. Displays the corresponding data set name of the selected library levels.

Listing

Display only. Displays the member name that is used by the batch Compare JOB stream for the (temporary) output Report file. The Report file is added to the Utility Listing Library specified in the CA-PanAPT Control File.

Line Commands

S

Start. Enter S on the Command line to start Compare model processing. Only the rows of the table marked with the S (select) action command are processed.

A

All. Enter A on the Command line to start Compare model processing on all rows of the table except those marked with the X (exclude) action command. All rows including those that are not marked (blank) are processed.

Action Commands

S

Select. The S action marks the row eligible for Compare model processing when the S Line command is entered.

X

Exclude. The X action marks the row not eligible for Compare model processing when the A Line command is entered.

Final Panel Processing

After you have entered the JOB statements and Compare processing options, enter the **A** or **S** command and press ENTER to start the Compare.

Discontinue Processing

To discontinue (cancel) the Compare action at any time without starting the Compare, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Compile and Link (C/L/CL)

The Compile (and Link-edit) Processing Options panel lets you specify options and overrides for all the members being Compiled and/or Link-edited. Use the scroll feature to move forward and backward through the Member List.

From the Member Selection List panel, enter **C** (Compile), or **L** (Link-edit), or **CL** (Compile and Link-edit) in the Act field of the desired row to display the Compile (and Link-edit) Processing Options panel, APIP713.

Note: To enable the C, L, or CL action, the associated Library Code must have the following Library Code Maintenance Development options set:

- For Compile (C action), the Compile supported field must be set to **Y**.
- For Compile and Link-edit (CL action), the Compile and Link-edit supported field must be set to **Y**.
- For Link-edit (L action), the Link-edit supported field must be set to **Y**.

Panel Field Descriptions

Enter JOB statements

Required. Length: 1-72. Type: alphanumeric.

Enter up to four JOB CONTROL statements. These statements precede the JCL created by the Checkout model(s). Unless your models generate JOB statements, at least one // JOB CONTROL statement must be entered.

Compile/Link Options

Level name or ? for MSL

Required. Length: 4. Type: alphabetic.

Enter the Library Level name or Short name assigned to the specific levels of libraries. For example, PROD, TEST, WORK, and so forth. You can also enter a ? to display an MSL of levels from which to select.

Number of MBRS per Job

Optional. Length: 1-2. Type: numeric. Default: 25.

This field is provided to instruct CA-PanAPT how many members to process in one submitted job stream. The maximum is 25 members per job. For example, you might have 30 members to compile and you might want to compile five members at a time. CA-PanAPT submits six jobs with five members per job.

Lib Code

Display only. This is the Library Code that is used for the source of the Compile (and Link-edit) model processing.

From Data

Optional. Length: 1-8. Type: alphanumeric. Default: null ("").

This field is provided to pass data to the Compile model. The value of this field is accessible through the $FROMDATA System Modeling keyword. This data is intended to be associated with the member on the origin library.

To Data

Optional. Length: 1-8. Type: alphanumeric. Default: null ("").

This field is provided to pass data to the Compile model. The value of this field is accessible through the $TODATA System Modeling keyword. This data is intended to be associated with the member on the destination library.

Line Commands

S

Start. Enter S on the Command line to start Compile/Link-edit model processing. Only the rows of the table marked with the S (select) action command are processed.

A

All. Enter A on the Command line to start Compile/Link-edit model processing on all rows of the table except those marked with the X (exclude) action command. All rows including those that are not marked (blank) are processed.

Action Commands

S

Select. The S action marks the row eligible for Compile/Link-edit model processing when the S Line command is entered.

X

Exclude. The X action marks the row not eligible for Compile/Link-edit model processing when the A Line command is entered.

Final Panel Processing

After you have entered the JOB statements and Compile/Link-edit processing options, enter the **A** or **S** command and press ENTER to start the Compile/Link-edit.

Discontinue Processing

To discontinue (cancel) the Compile/Link-edit action at any time without starting the Compile/Link-edit, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Note: The associated Library Code Compile/Link-edit model can only process a single language type. Thus, a mixture of more than one language type in a single Library Code is not supported by the distributed Compile/Link-edit model.

History (H)

The History panel displays the current status of any developmental changes made to a selected member while associated with the current Project.

From the Member Selection List panel, enter **H** in the Act field of the desired row to display the History panel, APIP414H.

Final Panel Processing

To view User Data information press ENTER to display the History User Data panel or enter the **END** command (PF3) to return to the Member Selection List panel.

Discontinue Processing

To discontinue (cancel) the History action, enter the **END** command (PF3) to return to the Member Selection List panel.

History User Data Panel

The History User Data panel displays User Data information. Press ENTER from the History panel to display the History User Data panel, APIP414U.

Final/Discontinue Processing

Enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Merge (MG)

The Merge Level Selection List panel lets you select the level inputs for the generation of a batch Merge JOB stream. The selection list represents all data sets from the primary levels in which the associated member was found to physically exist. Optionally, the Backup and/or Backout levels can also be searched for member existence.

From the Member Selection List panel, enter **MG** in the Act field of the desired row to display the Merge Level Selection List panel, APIP450A.

Panel Field Descriptions

Search BKUP

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Enter Y to initiate a member existence search of all Backup libraries associated with the Library Code. If the requested member is found in any of the Backup libraries, the corresponding data set selection row is inserted in the table display. If you enter N, a Backup library search is not initiated. **Note:** If no Backup libraries are currently defined in the Library Code, a diagnostic error message is issued.

Search BKOUT

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Enter Y to initiate a member existence search of all Backout libraries associated with the Library Code. If the requested member is found in any of the Backout libraries, the corresponding data set selection row is inserted in the table display. If you enter N, a Backout library search is not initiated. **Note:** If no Backout libraries are currently defined in the Library Code, a diagnostic error message is issued.

Action Commands

P

Parent Merge Input File. Use the P action to identify the selected row as the level data set that contains the member to use as the CA-Pan/Merge Parent input file. The Parent file is the base file (original) for the changes made to create File#1 and File#2. This file acts as the focal point for CA-Pan/Merge processing. Without this file, File#1 and File#2 cannot relate to one another. The use of the Parent file aids in identifying inserts, deletes, moves, and conflicts.

1

1st Changed Merge Input File. Use the 1 action to identify the selected row as the level data set that contains the member to use as the CA-Pan/Merge File#1 input file. File#1, the first changed file, is one of the two independently modified files needed as input to CA-Pan/Merge. This file should have been created by copying the Parent file and making changes to the copy. These changes can be inserts, deletes, and moves. This file has a direct relationship to the Parent through these changes. File#1 has no direct relationship to File#2 but does have an indirect relationship due to the fact that both were created from the Parent.

2

2nd Changed Merge Input File. Use the 2 action to identify the selected row as the level data set that contains the member to use as the CA-Pan/Merge File#2 input file. File#2, the second changed file, is one of the two independently modified files needed as input to CA-Pan/Merge. This file should have been created by copying the Parent file and making changes to the copy. These changes can be inserts, deletes, and moves. This file has a direct relationship to the Parent through these changes. File#2 has no direct relationship to File#1 but does have an indirect relationship due to the fact that both were created from the Parent.

Final Panel Processing

After the Parent, File#1, and File#2 CA-Pan/Merge input file have been identified, press ENTER to display the Merge Processing Options panel for further processing.

Discontinue Processing

To discontinue (cancel) the Merge action at any time without starting the Merge, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Merge Processing Options Panel

The Merge Processing Options panel lets you specify options and overrides for all the members being Merged. Use the scroll feature to move forward and backward through the Member List.

From the Merge Level Selection List panel, enter **P**, **1**, and **2** in the Act field of the desired rows to display the Merge Processing Options panel, APIP715.

Panel Field Descriptions

Enter JOB statements

Required. Length: 1-72. Type: alphanumeric.

Enter up to four JOB CONTROL statements. These statements precede the JCL created by the Checkout model(s). Unless your models generate JOB statements, at least one // JOB CONTROL statement must be entered.

Member

Display only. Displays the name of the member being Compared. It is the same as the Member field on the Member Selection List panel.

Type

Display only. This field displays the NEW source (1st) and OLD source (2nd) input files and associates them with the corresponding data set names of the selected library levels.

Data set name of the input libraries

Display only. Displays the corresponding data set name of the selected library levels.

Listing/Output

Display only. Displays the member name to use by the batch Merge JOB stream for the (temporary) output file name of both the CA-Pan/Merge Composite Output and Report files. The Composite Output file is added to the CA-PanAPT Development Level Library where Checkout action has previously copied the associated member. Whereas, the Report file is added to the Utility Listing Library specified in the CA-PanAPT Control File.

Line Commands

S

Start. Enter S on the Command line to start Merge model processing. Only the rows of the table marked with the S (select) action command are processed.

A

All. Enter A on the Command line to start Merge model processing on all rows of the table except those marked with the X (exclude) action command. All rows including those that are not marked (blank) are processed.

Action Commands

S

Select. The S action marks the row eligible for Merge model processing when the S Line command is entered.

X

Exclude. The X action marks the row not eligible for Merge model processing when the A Line command is entered.

Final Panel Processing

After you have entered the JOB statements and Merge processing options, enter the **A** or **S** command and press ENTER to start the Merge.

Discontinue Processing

To discontinue (cancel) the Merge action at any time without starting the Merge, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Output of Compare (OCP)

The Output of Compare Options panel lets you process the output from the last batch Compare JOB generated by the CP action.

From the Member Selection List panel, enter **OCP** in the Act field of the desired row to display the Output of Compare Options panel, APIP450C.

Note: If no CP action command scheduled a Compare batch JOB, this panel is suppressed and the following message is displayed on the selected row:

```
"=> NO OCP SCHEDULED"
```

Panel Field Descriptions

Enter

Required. Length: 1. Valid values: L, D, or C.

L

Browse Listing. Enter **L** and press ENTER for an ISPF Browse session of the Compare Report file created by the Compare JOB generated by the last CP action. Upon completion, the Output of Compare Options panel redisplays for further processing.

D

Delete. Enter **D** and press ENTER to start an online process to delete the Compare Report file and the association with the member in the Project. Upon completion, the Member Selection List panel redisplays for further processing.

C

Clear. Enter **C** and press ENTER to clear the association of the Compare Report file with the member in the Project. Upon completion, the Member Selection List panel redisplays for further processing.

Note: The Compare Report file is not deleted from the Utility Listing Library.

Final Panel Processing

Consult the processing options (above).

Discontinue Processing

To discontinue (cancel) the Output of Compare processing at any time without processing the Compare output listing file, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Output of Merge (OMG)

The Output of Merge Options panel lets you process both the CA-Pan/Merge Composite Output and Report files created from the last batch Merge JOB generated by the MG action.

From the Member Selection List panel, enter **OMG** in the Act field of the desired row to display the Output of Merge Options panel, APIP450M.

Note: If no MG action command scheduled a Merge batch JOB, this panel is suppressed and the following message displays:

```
"=> NO OMG SCHEDULED"
```

CA-Pan/Merge Composite Output File

The Composite Output File is the final merged output of CA-Pan/Merge. This file is created by merging changes represented by File#1 and File#2 based upon the Parent file. It contains the result of all inserts, deletes, moves, and conflicts determined by CA-Pan/Merge processing.

CA-Pan/Merge Report File

The Report File is a detailed account of all the findings of CA-Pan/Merge processing and/or a summary of all Merge operations.

Panel Field Descriptions

Enter

Required. Length: 1. Valid values: E, O, L, R, D, or C.

E

Browse Edit. Enter **E** and press ENTER for an ISPF Edit session of the CA-Pan/Merge Composite Output file created by the Merge JOB generated by the last MG action. Upon completion, the Output of Merge Options panel redisplays for further processing.

O

Browse Output. Enter **O** and press ENTER for an ISPF Browse session of the CA-Pan/Merge Composite Output file created by the Merge JOB generated by the last MG action. Upon completion, the Output of Merge Options panel redisplays for further processing.

L

Browse Listing. Enter **L** and press ENTER for an ISPF Browse session of the CA-Pan/Merge Report file created by the Merge JOB generated by the last MG action. Upon completion, the Output of Merge Options panel redisplays for further processing.

R

Replace Member. Enter **R** and press ENTER to start an online process of replacing the existing (checked out) copied member residing in the CA-PanAPT Development Level Library with the current CA-Pan/Merge Composite Output file. Upon completion, the CA-Pan/Merge Composite Output and Report files are deleted and the association is cleared with the member in the Project. The Member Selection List panel redisplays for further processing.

D

Delete. Enter **D** and press ENTER to start an online process of deleting both the CA-Pan/Merge Composite Output and Report files and their association with the member in the Project. The Member Selection List panel redisplays for further processing.

C

Clear. Enter **C** and press ENTER to clear the association of the CA-Pan/Merge Composite Output and Report file with the member in the Project. Upon completion, the Member Selection List panel redisplays for further processing.

Note: The CA-Pan/Merge Composite Output and Report files are not deleted from their corresponding libraries.

Final Panel Processing

Consult the processing options (above).

Discontinue Processing

To discontinue (cancel) the Output of Merge processing at any time without processing the Merge Output files, enter the **END** command (PF3) to return to the Member Selection List panel for further input.

Utilities (U)

The Utility panel has a different format depending on the Access Method associated with the Development Library of the selected member. From the Member Selection List panel, enter **U** in the Act field of the desired row to automatically display one of the following supported types of Utility panels:

- PDS Utilities – This Utility panel automatically displays when the selected member resides in a Development Library with an Access Method of PO (Partitioned Access Method). This Utility panel provides the ability to Copy, Rename, and Delete the selected member.
- CA-Panvalet Utilities – This Utility panel automatically displays when the selected member resides in a Development Library with an Access Method of PV (CA-Panvalet). This Utility panel provides the ability to Copy and/or Change the CA-Panvalet attributes of the selected member.
- CA-Librarian Utilities – This Utility panel automatically displays when the selected member resides in a Development Library with an Access Method of L (CA-Librarian). This Utility panel provides the ability to Copy the selected member.

See the topics that follow for detailed instructions on using these panels.

PDS Utilities

From the Member Selection List panel, enter **U** in the Act field of the desired row to display the Utility panel, APIP440A, for Partitioned (PO) Access Method Development Libraries.

Panel Field Descriptions

Action

Required. Length: 1. Valid values: D, C, or R. Default: none.

D

Deletes the specified member in the From Dsname PDS library.

C

Copies the specified member in the From Dsname PDS library to the To Dsname PDS library (optionally using the (New) Member name).

R

Renames the specified member in the From Dsname PDS library to the (New) Member name.

From Dsname

Required. Length: 44. Type: alphanumeric. Default: The data set name of the Development Library associated with the selected row.

- For the Delete action, this is the data set name of a PDS that contains the Old Member to delete.
- For the Copy action, this is the data set name of a PDS that contains the Old Member to use for the copy.
- For the Rename action, this is the data set name of a PDS that contains the Old Member to rename to the (New) Member name.

Old Member

Required. Length: 8. Type: alphanumeric. Default: The member name associated with the selected row.

- For the Delete action, this is the member name that is contained in the From Dsname to delete.
- For the Copy action, this is the member name that is contained in the From Dsname to use for the copy.
- For the Rename action, this is the member name that is contained in the From Dsname to rename to the (New) Member name.

To Dsname

Optional. Length: 44. Type: alphanumeric. Default: If the (New) Member field value (below) is specified, this field value defaults to the current From Dsname field value. For the Copy action, this is the data set name of the PDS to which the Old Member in the From Dsname is to be copied. This field is not used for the Delete and Rename actions.

(New) Member

Optional. Length: 8. Type: alphanumeric. Default: If the To Dsname field value (above) is specified, this field value defaults to the current Old Member field value.

- For the Copy action, this is the member name to use in the To Dsname when copying the Old Member in the From Dsname.
- For the Rename action, this is the member name to use when renaming the Old Member in the From Dsname.

This field is not used for the Delete action.

Replace

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

For the Copy action, when the Replace field is set to Y, the member is copied to the To Dsname even if it previously exists. However, when the Replace field is set to N, the member is not copied to the To Dsname if it previously exists. This field is not used for the Rename or Delete actions.

CONFIRM

Member Delete

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

For the Delete action, when the Member Delete field is set to Y, the Delete Confirmation panel (APIP440X) displays allowing you to review the From Dsname and Old Member values before the Delete actually occurs. You can cancel the Delete by issuing the END (PF3) command, or you can continue with the Delete process by pressing ENTER. This field is not used for the Copy or Rename actions.

Truncation

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

For the Copy action, when the Truncation field is set to Y, the Truncation Warning panel (APIP440Y) displays before the actual Copy occurs. When the logical record length of the Old Member (in the From Dsname) is greater than the logical record length of the (New) Member (in the To Dsname), the Truncation Warning panel lets you review this situation. You can cancel the Copy by issuing the END (PF3) command, or you can continue with the Copy process by pressing ENTER. This field is not used for the Rename or Delete actions.

Blank Padding

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

For the Copy action when the Blank Padding field is set to Y, the Blank Padding Warning panel (APIP440Z) displays before the actual Copy occurs. When the logical record length of the Old Member (in the From Dsname) is less than the logical record length of the (New) Member (in the To Dsname), the Blank Padding Warning panel lets you review this situation. You can cancel the Copy by issuing the END (PF3) command, or you can continue with the Copy process by pressing ENTER. This field is not used for the Rename or Delete actions.

Final Panel Processing

When you have successfully completed the processing of the selected action, the Member Selection List panel redisplays for further processing. However, if an error occurred while processing the selected action, a diagnostic message is issued and the Utility panel (for Partitioned (PO) Access Method Development Libraries) redisplays so that the condition can be corrected and the action can be retried.

Discontinue Processing

When you have discontinued the processing of the selected action, the Utility panel (for Partitioned (PO) Access Method Development Libraries) redisplays. Enter the **END** command (PF3) to return to the Member Selection List panel.

CA-Panvalet Utilities

From the Member Selection List panel, enter **U** in the Act field of the desired row to display the Utility panel, APIP440B, for CA-Panvalet (P) Access Method Development Libraries.

Panel Field Descriptions

Change Attributes

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Enter **Y** to change the CA-Panvalet attributes of the selected member. The modified attribute field values of Status, Level Number, Lock, User Code, Security Level, or Comment is used to update the attributes of the selected member. Note that only attribute fields whose value has changed from the last ENTER command is used to update the corresponding attributes of the selected member. If no field values have changed, no update occurs.

Enter **N** to not update the member attributes of the selected member.

Display Attributes

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Enter **Y** to display the CA-Panvalet Attributes Display panel, APIP440F. This panel shows the following CA-Panvalet member attributes of the selected member: locked status (user ID, time, and data), last accessed status (time and date), last modified status (user ID, time, and date), physical number of blocks, logical number of statements, average bytes per line, language name, number of subsets, logical record length, format or no format status, carriage control, and last action.

Enter **N** to not display the CA-Panvalet Attributes Display panel.

Status

(1st field)

Optional. Length: 1. Valid values: T or P. Default: Current production status.

Enter **T** to designate TEST status or enter **P** to designate PRODUCTION status. Once a member is in PRODUCTION status you cannot change it back to TEST status.

(2nd field)

Optional. Valid values: I or A. Default: Current activity status.

Enter **I** to designate INACTIVE status or enter **A** to designate ACTIVE status.

(3rd field)

Optional. Valid values: D or E. Default: Current enabled status.

Enter **D** to designate DISABLED status or enter **E** to designate ENABLED status. If any of these fields have been modified, the corresponding member attributes are updated with this value for the selected member:

- displayed in the title line when the Change Attributes field is set to Y.
- in the To Dsname and (New) Member fields when the ACTION field is set to A or B.

Level Number

Optional. Length: 1-3. Type: numeric. Default: Current level number of the selected member.

When a CA-Panvalet member is edited (changed) and saved, the member's level number is incremented by 1. You can enter a new level number to replace the current one. If any of these fields have been modified, the corresponding member attributes are updated with this value for the selected member:

- displayed in the title line when the Change Attributes field is set to Y.
- in the To Dsname and (New) Member fields when the ACTION field is set to A or B.

Lock

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Often times it is desirable to prevent modifications to a CA-Panvalet member when performing offline work to that member. Any CA-Panvalet member can be LOCKed or UNLOCKed regardless of the member's current status.

If no user ID appears below the Lock field (see the USERID field description below) the member is UNLOCKed and can be LOCKed by entering **Y** in this field. You cannot LOCK a member that is currently LOCKed by another user ID.

If your user ID appears below the Lock field, the member can be UNLOCKed by entering **N** in this field.

If this field has been modified, the LOCK status member is changed for the selected member:

- displayed in the title line when the Change Attributes field is set to Y.
- in the To Dsname and (New) Member fields when the ACTION field is set to A or B.

User Code

Optional. Length: 1-4. Type: numeric. Default: Current user code of the selected member.

The user code is a 1 to 4-digit number assigned when a member is created. If no user code is specified when the member is created, 0 is the default. You can enter a new number 0-9999 to replace the current access code.

If this field has been modified, the user code member attributes are updated with this value for the selected member:

- displayed in the title line when the Change Attributes field is set to Y.
- in the To Dsname and (New) Member fields when the ACTION field is set to A or B.

Security Level

Optional. Length: 1. Type: numeric. Default: Current security level of the selected member.

Optionally, you can assign a security level to selected members by using this field. Zero (0) is the default value for all library members and indicates that no special actions are necessary to protect the contents of an individual member. Specifying a value of 1, 2, or 3 as a member's security level results in a security controlled member.

To access a secured member, you must specify the full access code value, which is a combination of the security level and user code.

If this field has been modified, the security level member attributes are updated with this value for the selected member:

- displayed in the title line when the Change Attributes field is set to Y.
- in the To Dsname and (New) Member fields when the ACTION field is set to A or B.

USERID

Display only. Default: User ID of the owner of the selected member if LOCKed or blanks.

This field is used in combination with the Lock field to tell the user the current LOCKed status of the selected member. When the Lock field is set to Y, the USERID field value is the associated user ID of the owner of the member's lock. When the Lock field is set to N, the member is UNLOCKed and this field is blank.

Comment

Optional. Length: 50. Type: alphanumeric. Default: Current user comment of the selected member.

A user comment record can be associated with each CA-Panvalet member. A record can contain any alphanumeric/national characters.

If this field has been modified, the comment record member attributes are updated with this value for the selected member:

- displayed in the title line when the Change Attributes field is set to Y.
- in the To Dsname and (New) Member fields when the ACTION field is set to A or B.

ACTION

Required. Length: 1. Valid values: C, A, or B. Default: none.

C

Copies the specified member (in the From Dsname and Old Member fields) to the CA-Panvalet library (in the To Dsname and (New) Member fields).

A

Changes the attributes of the specified member (in the From Dsname and Old Member fields) to the CA-Panvalet library (in the To Dsname and (New) Member fields). The member attribute fields (described above) are used as input for the attribute changes.

B

Copies and Changes the attributes of the specified member (in the From Dsname and Old Member fields) to the CA-Panvalet library (in the To Dsname and (New) Member fields). The member attribute fields (described above) are used as input for the attribute changes.

From Dsname

Required. Length: 44. Type: alphanumeric. Default: The data set name of the Development Library associated with the selected row.

For the C and B (Copy) actions, this is the data set name of the CA-Panvalet library that contains the Old Member to use as input for the Copy.

This field is not used for the A (Change Attributes) action.

Old Member

Required. Length: 10. Type: alphanumeric. Default: The member name associated with the selected row.

For the C and B (Copy) actions, this is the member name of the CA-Panvalet library member to use as input for the Copy.

This field is not used for the A (Change Attributes) action.

Control

Optional. Length: 5. Type: numeric. Default: none.

Enter the CA-Panvalet control code associated with the From Dsname if required.

Access

Optional. Length: 5. Type: numeric. Default: none.

Enter the CA-Panvalet access code associated with the Old Member if required.

To Dsname

Optional. Length: 44. Type: alphanumeric. Default: If the (New) Member field value (below) is specified, this field value defaults to the current From Dsname field value.

- For the C and B (Copy) Actions, this is the data set name of the CA-Panvalet library that contains the (New) Member. The To Dsname CA-Panvalet library is used as output for the Copy.
- For the A (Change Attributes) action, this is the data set name of the CA-Panvalet library that contains the member to which the member attributes are updated.

(New Member)

Optional. Length: 10. Type: alphanumeric. Default: If the To Dsname field value (above) is specified, this field value defaults to the current Old Member field value.

- For the C and B (Copy) actions, this is the member name to use in the To Dsname when copying the Old Member in the From Dsname.

- For the A (Change Attributes) action, this is the CA-Panvalet member in the To Dsname to which the member attributes are changed.

Control

Optional. Length: 5. Type: numeric. Default: none.

Enter the CA-Panvalet control code associated with the To Dsname if required.

Access

Optional. Length: 5. Type: numeric. Default: none.

Enter the CA-Panvalet access code associated with the (New) Member if required.

Replace

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

For the C and B (Copy) actions, when the Replace field is set to Y, the member is copied to the To Dsname even if it previously exists. However, when the Replace field is set to N, the member is not copied to the To Dsname if it previously exists.

This field is not used for the A (Change Attributes) action.

Final Panel Processing

When you have successfully completed the processing of the selected action, the Member Selection List panel redisplays for further processing. However, if an error occurred while processing the selected action, a diagnostic message is issued and the Utility panel (for CA-Panvalet (P) Access Method Development Libraries) redisplays so that the condition can be corrected and the action can be retried.

Discontinue Processing

When you have discontinued the processing of the selected action, the Utility panel (for CA-Panvalet (P) Access Method Development Libraries) redisplays. Enter the **END** command (PF3) to return to the Member Selection List panel.

CA-Librarian Utilities

From the Member Selection List panel, enter **U** in the Act field of the desired row to display the Utility panel, APIP440C, for CA-Librarian (L) Access Method Development Libraries.

Panel Field Descriptions

Action

Required. Length: 1. Valid values: C. Default: none.

C

Copies the specified member (in the From Dsname and Old Member fields) to the To Dsname CA-Librarian library (optionally using the (New) Member name).

From Dsname

Required. Length: 44. Type: alphanumeric. Default: The data set name of the

Development Library associated with the selected row. This is the data set name of a CA-Librarian library that contains the Old Member used as input for the Copy action.

Old Member

Required. Length: 8. Type: alphanumeric. Default: The member name associated with the selected row.

This is the member name that is contained in the From Dsname used as input for the Copy action.

Password

Required. Length: 4. Type: alphanumeric. Default: none.

Enter the CA-Librarian password associated with the Old Member in the From Dsname.

Set LIBGET options

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Enter Y to display the LIBGET Options panel, APIP440D, to specify extended LIBGET functionality. See CA-Librarian LIBGET Options later in this chapter for further details.

To Dsname

Optional. Length: 44. Type: alphanumeric. Default: If the (New) Member field value (below) is specified, this field value defaults to the current From Dsname

field value. This is the data set name of a CA-Librarian library that contains the (New) Member used as output for the Copy action.

(New) Member

Optional. Length: 8. Type: alphanumeric. Default: If the To Dsname field value (above) is specified, this field value defaults to the current Old Member field

value. This is the member name to use in the To Dsname when copying the Old Member in the From Dsname.

Password

Required. Length: 4. Type: alphanumeric. Default: none.

Enter the CA-Librarian password associated with the (New) Member in the From Dsname when the member previously exists.

Set LIBEXP options

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

Enter Y to display the LIBEXP Options panel, APIP440E, to specify extended LIBEXP functionality. See CA-Librarian LIBEXP Options later in this chapter for further details.

Replace

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

When set to Y, the member is copied to the To Dsname even if it previously exists. However, when set to N the member is not copied to the To Dsname if it previously exists.

Final Panel Processing

When you have successfully completed the processing of the Copy action the Member Selection List panel redisplays for further processing. However, if an error occurred while processing the Copy action, a diagnostic message is issued and the Utility panel (for CA-Librarian (L) Access Method Development Libraries) redisplays so that the condition can be corrected and the action can be retried.

Discontinue Processing

When you have discontinued the processing of the selected action, the Utility panel (for CA-Librarian (L) Access Method Development Libraries) redisplays. Enter the END command (PF3) to return to the Member Selection List panel.

CA-Librarian LIBGET Options

From the Utility panel (for CA-Librarian (L) Access Method Development Libraries), enter **Y** in the Set LIBGET options field to display the CA-Librarian LIBGET Options panel, APIP440D.

Panel Field Descriptions

ARC

Optional. Length: 12. Type: alphanumeric. Default: none.

Provides an archiving level selection for the selected/specified module. ARC with a date, date and time, relative level number, or absolute level number selects a specific level of a module for processing. If the ARC option is omitted from x and y, and the module is archived, the most recent level is selected for processing.

ARC(date)

Selects a specific level by date. The level that was current on the specific date is updated. The format of the date is: yymmddhhmmss.

ARC(Lx)

Is the absolute level as reported on the module listing. The absolute level can be specified up to 5 digits. The level number must be prefixed with the letter L.

ARC(-Y)

Is the relative level number. The level number can be specified up to 3 digits. The relative level number must be prefixed with the minus sign (-).

ARCINC

Optional. Length: 12. Type: alphanumeric. Default: none.

Provides an archiving level selection for all included modules. If this option is specified, then every archived module included is expanded using the specific level. If this option is not selected, the most recent level of any included archived module is selected. This option is ignored for any included module that has an archiving level selection on the -INC statement.

ARC(date)

Selects a specific level by date. The level that was current on the specific date is updated. The format of the date is: yymmddhhmmss.

ARC(Lx)

Is the absolute level as reported on the module listing. The absolute level can be specified up to 5 digits. The level number must be prefixed with the letter L.

ARC(-Y)

Is the relative level number. The level number can be specified up to 3 digits. The relative level number must be prefixed with the minus sign (-).

NO INCLUDE

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

When set to Y, this option suppresses the expansion of the -INC statements in the CA-Librarian module when it is retrieved by the LIBGET command.

INCLUDE(RESEQ)

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

When set to Y, this option reassigns to the records in the included module and the sequence numbers are consistent with those specified for the module.

INCLUDE(NORESEQ)

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

When set to Y, this option maintains the original sequence numbering in the (expanded) module. As a result of the non-sequencing of included records, the records of the data set could be out of sequence.

INCLUDE ASIS

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

When set to Y, this option copies all -INC statements exactly as they exist in the module without expansion and without identifying comment records.

Final Panel Processing

When you have successfully completed the processing of the LIBGET options, the Copy action processing continues as specified in the Final Panel Processing section under CA-Librarian Utilities. However, if an error occurred while processing the LIBGET options, a diagnostic message is issued and the LIBGET Options panel redisplays so that the condition can be corrected and the action can be retried.

Discontinue Processing

When you have discontinued the processing of the LIBGET options, the default LIBGET options are used and the Copy action processing continues as specified in the Final Panel Processing section under CA-Librarian Utilities.

CA-Librarian LIBEXP Options

From the Utility panel (for CA-Librarian (L) Access Method Development Libraries), enter **Y** in the Set LIBEXP options field to display the CA-Librarian LIBEXP Options panel, APIP440E.

Panel Field Descriptions

PGMR

Optional. Length: 15. Type: alphanumeric. Default: none.

Specifies the name of the programmer responsible for the module. The name can be 1 to 15 characters long and must not contain any blanks or commas. If PGMR is not specified but is required, a prompt is issued.

SEQCHK or SEQ

Column

Optional. Length: 2. Type: numeric. Default: none.

The value is the column in which the sequence number starts. Valid values are:

SEQCHK 1 to 80
SEQ 1 to 81

DES

Optional. Length: 30. Type: alphanumeric. Default: none.

Provides a description of the module. The description can be 1 to 30 characters long.

SEQCHK or SEQ

Length

Optional. Length: 1. Type: numeric. Default: none.

The value is the length of the sequence number field. Valid values are 1 to 9. If a starting column number of 81 is specified, then a length of 6 must be specified.

HIST

Optional. Length: 74. Type: alphanumeric. Default: none.

Provides history information for the module.

SEQCHK or SEQ

Increment

Optional. Length: 4. Type: numeric. Default: none.

The value is the increment of the sequence field. Valid values are 1 through 9999.

SEQCHK or SEQ

1st Record

Optional. Length: 4. Type: numeric. Default: none.

The value is the sequence number to be assigned to the first record of the module during addition of the module or during sequence updating.

PASSWORD

Optional. Length: 4. Type: alphanumeric. Default: none.

Use the password option to specify the 4-character, alphanumeric password currently assigned to the module.

RESEQ

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

When set to Y, this option is used to renumber the records of the module.

ARC

Optional. Length: 12. Type: alphanumeric. Default: none.

Provides an archiving level for the selected/specified module. ARC with a date, date and time, relative level number, or absolute level number selects a specific level of a module for processing. If the ARC option is omitted from x and y, and the module is archived, the most recent level is selected for processing.

ARC(date)

Selects a specific level by date. The level that was current on the specific date is updated. The format of the date is: yymmddhhmmss.

ARC(Lx)

Is the absolute level as reported on the module listing. The absolute level can be specified up to 5 digits. The level number must be prefixed with the letter L.

ARC(-Y)

Is the relative level number. The level number can be specified up to 3 digits. The relative level number must be prefixed with the minus sign (-).

ARCCLR

Optional. Length: 12. Type: alphanumeric. Default: none.

Deletes every level of an archived module up to, but not including, the level that was currently on the date that you specified. Archiving continues for updates made after an ARCCLR operation. The format of the date is: yymmddhhmmss.

NOARC

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

This option suspends the archiving of a module. When the module is updated while NOARC is in effect, the level selected for updating is replaced, more recently created levels (if any) are deleted, and older levels (if any) are maintained.

ARCOFF

Optional. Length: 1. Valid values: Y (Yes) or N (No). Default: N.

This option terminates archiving of a module and deletes all levels except the current level.

Final Panel Processing

When you have successfully completed the processing of the LIBEXP options, the Copy action processing continues as specified in the Final Panel Processing section under CA-Librarian Utilities. However, if an error occurred while processing the LIBEXP options, a diagnostic message is issued and the LIBEXP Options panel redisplays so that the condition can be corrected and the action can be retried.

Discontinue Processing

When you have discontinued the processing of the LIBEXP options, the default LIBEXP options are used and the Copy action processing continues as specified in the Final Panel Processing section under CA-Librarian Utilities.

Glossary

"Active" Move Request

A move request available for Move Processing. (That is, it has not been deleted, and its status is not Moved-QA Only, Moved to Production, or any Backout status.)

Activity

A CA-PanAPT online function. You can designate which users can perform CA-PanAPT activities using the CA-PanAPT security panels.

ACTIVITY (activity) Event

The security event called when a user tries to process data (presses Enter) after a function has been accessed but before the database is updated.

Activity Key

Describes the CA-PanAPT activities such as INVENTRY/ADD. Users must be authorized to perform the activity. See the "Control File" chapter for a list of CA-PanAPT activities.

Administrator

See system administrator or group administrator.

Age

The age of a move request, in terms of days, based on the Move Request's Move Date.

Approval

The granting of formal authorization to process a move request or an acknowledgment that notification of the move has been received. Author\-ized users grant Approvals online using an ISPF panel, eliminating delays of sequential signing of printed forms.

APTDB

The CA-PanAPT database, which is classified as a KSDS, VSAM file. The last node of the data set name of this file is the ddname used to reference this file. The APTDB contains a Control component, Inventory component, Library code component, and move request component together with a Member/Move request cross-reference component. Before CA-PanAPT 2.0, these entities were separate VSAM files; now they are consolidated into one VSAM file.

APTHIST

The CA-PanAPT history file that contains move requests that have been purged from the pending component of the APTDB file. This is the last node of the data set name of the history file and is usually the ddname used to reference the file.

APTMDLO

The CA-PanAPT modeling output file that contains the output from the modeling process. The members of this PDS are recreated each time the modeling operation is executed. APTMDLO is the last node of the data set name of the Modeling Output File and is usually the ddname used to reference the file.

APTMODEL

The CA-PanAPT PDS that contains models. It is the last node of the data set name of the PDS and is usually the ddname used to reference the file.

Assignment

Temporary ownership of a production member while it is being changed as part of a move request. Only one user can hold assignment for a member.

Assignment, Proper

Proper Assignment refers to the relationship tested when a move request is closed. The MOVEREQ/CLOASSGN activity defines the relationship and the Close Assignment Option (CLO) defines the user IDs to be tested.

Automatic Assignment

A method of assignment for unassigned members. Under Automatic Assignment, when a user adds an unassigned member to a move request, the member is assigned to the user as part of the operation.

Back Out

Physical movement of a member from a backup library to a level library to replace a member that is causing problems in the Level environment. The problem member is moved to a back out library.

Back Out Library

A library that contains the version of a Level software entity that was backed out from a level library.

Backup Library

A library that contains the most recently replaced version of a Level software entity.

CLISTLIB

The CA-PanAPT TSO CLIST/REXX Procedure library.

Control File

The file APTDB that retains CA-PanAPT site-defined data, system activity information and user information.

***DEFAULT**

The user ID CA-PanAPT uses in assigning CA-PanAPT activity authorization to CA-PanAPT users who are not explicitly defined to CA-PanAPT.

Development Facility

The CA-PanAPT Development Facility (DF) is a functional extension to CA-PanAPT that provides change management during the development portion of the life cycle before any migration is started. The development facility provides an environment to perform functions such as checkout/checkin, member text modifications, and member compile/link processing for members that are associated with a defined project.

Disapproval

The revoking of formal authorization to process a move request or an acknowledgment that notification of the move has been reviewed. When a Move Request is disapproved, only the user ID who disapproved an approval category or the CA-PanAPT System Administrator can *approve* or *unapproved* it. Authorized users revoke Approvals online using an ISPF panel.

Dual Maintenance

While converting non-critical parts of CA-PanAPT, you may continue to use the old CA-PanAPT version. However, the data that is updated on your old system must also be updated on the new CA-PanAPT system to ensure that the new system is consistent with the old system.

Enable

Activating a CA-PanAPT procedure or method. For example, "Auto assign\-ment is enabled" means that CA-PanAPT is using an automatic procedure for assigning members to users.

Entity

Any logical association of information that can be moved. This can include programs, JCL, files, or documentation.

Final-level Library

A library that contains the current version of a software entity used in a company's day-to-day operations.

Group

A logical association of user IDs used to specify authorizations more easily. Groups are identified when user IDs are defined.

Group Administrator

A specially designated CA-PanAPT user who may be allowed special author\-izations to perform CA-PanAPT activities.

History File

The APTHIST file, which contains move requests that have been purged from the pending file.

INIT (Initialization) Event

The security event activated when a user enters CA-PanAPT.

Inventory Approval

A formal acknowledgment that an inventory record meets local site stan\-dards. CA-PanAPT provides many fields for optional, site-specific, informa\-tion about a member. CA-PanAPT does not validate these fields when it creates the record or later. The inventory approval ensures that the indi\-vidual inventory record has been reviewed and meets site standards.

Inventory File

The Inventory component of the APTDB file that retains an inventory of any or all members of the final-level libraries.

Inventory Qualifier

An eight-character code used to link multiple library codes that use the same final-level library. You specify an inventory qualifier as part of the library code definition when several library codes share the same produc\-tion libraries.

Inventory Record

A record on the inventory file containing member-specific information about a Production member. Inventory Assignment uses this information to control member assignment. Model processing uses this information to control generation of JCL or control statements.

ISPMLIB

The CA-PanAPT ISPF message library.

ISPPLIB

The CA-PanAPT ISPF panel library.

ISPSLIB

The CA-PanAPT ISPF skeleton library.

ISPTLIB

The CA-PanAPT ISPF table input library.

JCLLIB

The CA-PanAPT JCL library.

Keywords

Representation of data element values used in modeling. Keyword values can be used to control logic in a model.

Levels

See Library Levels.

Library Code

A collection of information that defines member types and the data set names of the libraries where they reside. You must define at least one Library Code for each set of test, QA, production, backup, and backout libraries you use. You may choose to have more than one Library Code for a set of libraries (see Inventory Qualifier). The Library Code is most often used to describe the complete xxxx/yyy pattern used to distinguish data sets and processing. It is also used to differentiate the xxxx part of the pattern xxxx/yyy from the library subcode yyy.

Library Code File

The Library Code component of the APTDB that contains a record for each library code set up under CA-PanAPT.

Library Levels

Different classifications of libraries in the CA-PanAPT system. CA-PanAPT has a possible 16 library levels. The starting level is required, all subsequent levels can have their own backup and backout libraries. Apart from the final level subsequent levels are optional. Backup and backout libraries are not permitted at the test level and are optional for all succeeding, defined library levels.

Library Subcode

An optional qualifier that adds a further description to a library code. The subcode is the yyy part of the pattern xxxx/yyy.

LOADLIB

The CA-PanAPT load module library.

Model

A set of control and data statements that controls generation of JCL and/or control statements required to move a member. Models are stored as members of a CA-PanAPT-supplied PDS. They are prepared and changed with a standard ISPF editor.

Model File

The standard PDS file APTMODEL, which retains all CA-PanAPT models.

Modeling

A CA-PanAPT feature that generates 80-byte images, usually JCL or utility control cards. Modeling provides the flexibility necessary to move members of different library types according to site standards.

Move Processing Cycle

The batch portion of the move request cycle that entails actually proces\-sing the move requests.

Move Request

A unit of work to CA-PanAPT. A move request specifies the members that CA-PanAPT moves in one logical operation. It also specifies details about the move, such as the move date.

Move Request Cycle

A combination of batch and online procedures that takes a move request from creation to completion.

Move Request Status

The current state of a move request at any point during the entire CA-PanAPT move request cycle.

Operations

An attribute that denotes users responsible for the daily operation of CA-PanAPT activities. It may be specified for any user ID.

Ownership

The concept that a CA-PanAPT entity (a move request or an inventory record) explicitly belongs to a CA-PanAPT user.

PARMLIB

The CA-PanAPT PARM (parameter) library that contains control statements used by other parts of the system.

Pending File

The move request component of the APTDB that contains move request information.

Permanent Owner

A CA-PanAPT user ID who is responsible for a Production member when it is not assigned to a move request.

PROCLIB

The CA-PanAPT-cataloged procedure library.

Production Turnover

The movement of software entities into the production libraries where they are used during normal data center operation. The entities can be executable programs, documentation for reference, source code, or any other entity a site considers production.

Project

A project definition creates a CA-PanAPT system record that associates a special group of libraries, called "Development Libraries" with a group of members defined in one or more Move (Change) Requests.

Reassign/Release Processing

Processing that determines whether a member should be released or assigned to a different move request.

Release

Giving up assignment of a production member.

Retrieve

Physical movement of a member from a higher-level library to a starting-level library before modification.

Security Events

Logical points in the CA-PanAPT environment where a user-written security exit program can perform tests. There are three types of security events (see INIT Event, ACTIVITY Event, and TERM Event).

Security Exit Program

A user-written program that controls security processing. It performs tests that permit or restrict a user from performing a CA-PanAPT activity. If active, it complements CA-PanAPT authorization.

Site-specific

Refers to any standard, methodology, or convention not recognized by every other CA-PanAPT (OS/390) data processing site. Job and data set naming conventions are some of the more obvious site-specific standards. CA-PanAPT sites may also use the optional fields in inventory and library code definitions for their own purposes. These are site-specific standards, also.

Special Handling Move Request

A specially designated move request in which CA-PanAPT does not prepare a batch job or move any Entities. Special handling move requests never have members and approvals are not allowed. They are outside the normal move request cycle.

Status

See Move Request Status.

System Administrator

A specially designated CA-PanAPT user who can always use any CA-PanAPT activity. There can be more than one CA-PanAPT system administrator.

System Keywords

A type of keyword used in modeling that starts with a $ and is initialized by CA-PanAPT.

Starting-level Library

A library where a new version of a software entity is developed.

TERM (Termination) Event

The security event in which the user exits CA-PanAPT. The user-written security exit program can be modified to perform your own termination routine.

Transfer

Reassignment of assignment of a member to another CA-PanAPT user ID.

Turnover

See Production Turnover.

Unapproval

The removal of formal authorization to process a move request. This indicates that notification of the move has not been reviewed by an author\-ized user. When a move request is unapproved for an approval category, it is as if the move request has never had approval granted. Authorized users can remove approvals or disapprovals online using an ISPF panel.

User Identification Facility (UIF)

The CA-PanAPT UIF provides a centralized facility to define details about a working environment to CA-PanAPT. For example, it includes which database to allocate and access, the authorized users and passwords for job submissions, the panel, message, skeleton, and table libraries to allocate, as well as other entries.

User Keywords

A type of keyword used in modeling that is defined on the first model statement on which it is encountered.

Verification

Confirmation of the completeness, readiness, or validity of a move request and its contents given by an analysis procedure or program.

Verification Procedure

A program or set of programs designed to analyze the attributes of a move request and post a pass or fail indication.

Verification Procedure Category

A number from 01 to 20 identifying a specific verification procedure as defined in the control file. Each category has a description and associated model control statements.

Verification Requirements

A set of verification procedures that must be satisfied for a particular level (Starting-level, Final-level, and any level between) for any move request with a member from a library code which requires the verifications.

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