

CA Librarian®

LIB/CCF User Guide

r4.3



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Chapter 1: Introduction

This guide contains all the information necessary for LIB/CCF requestors, managers, programmers, and control group members to initiate, implement, and track a change request through the change request cycle.

Note: For information on the implementation and administration of LIB/CCF, see the *LIB/CCF Implementation Guide*.

LIB/CCF, the CA Librarian Change Control Facility, provides a way for a user to enter change requests and for a programming manager to assign them to a programmer. A series of reports tracks these changes through the entire process of updating, testing, and linking the modified programs.

The following example displays the ISPF LIB/CCF primary options menu.

```
--- mm/dd/yy ----- CA-LIBRARIAN CHANGE CONTROL FACILITY ----- TIME 15:25
OPTION ==>

0  CCF PARMS      - Specify user parameters
1  OPEN           - Open a change request
2  ASSIGN         - Assign, reassign, reject a change request
3  DISPLAY        - Display assigned change requests
4  LOGOUT         - Logout a module to test
5  LOGIN          - Login a module to production
6  LINK           - Initiate a production linkedit or bind
7  CLOSE         - Close a change request
8  REPORTS        - Print or display LIB/CCF reports
9  MOVEMENT STATUS - Display, process, reject LOGOUT/LOGIN requests
10 LINK STATUS    - Display, process, reject linkedit and bind requests
11 JOB STATUS     - Display, process, resubmit pending batch jobs
12 ADMIN SERVICES - LIB/CCF administrator services
T  TUTORIAL       - Display information about LIB/CCF
X  EXIT           - Terminate LIB/CCF
```

This section contains the following topics:

[LIB/CCF Request Cycle](#) (see page 10)

[Site Modifications](#) (see page 10)

[Reports](#) (see page 11)

[LIB/CCF Batch Utilities](#) (see page 13)

LIB/CCF Request Cycle

There are several ways that you can configure LIB/CCF to carry through a change request from beginning to end. This section describes the way things happen in the model system.

First, the user of an application uses Option 1 of LIB/CCF to open a change request online. The change request enters the queue of the application manager in charge of that application.

The application manager uses Option 2 to review the request, to add comments (if necessary), and to assign the request to one of the programmers defined to LIB/CCF as reporting to him.

The programmer the request is assigned to views it on Option 3, logs out the source modules from the production environment to test using Option 4, and makes the requested changes on the test master file.

When the changes are complete and tested, the programmer uses Option 5 to request that the control group log in the source modules to the production master file and Option 6 to link them to the application system. Finally, the programmer uses Option 7 to close the change request.

Site Modifications

The scenario just described is not the only way that LIB/CCF lets your site handle change control. The LIB/CCF administrator can tailor LIB/CCF in one of several different configurations.

The control group can perform the logout from production to test instead of the programmer. The transfer can take place either online or in batch. Batch movement cannot be done in a VM/ESA batch machine.

The programmer or control group can login from test to production, online or in batch. The application system link has the same options. Online link is possible only in the z/OS and OS/390 environment.

For LIB/CCF-ISPF(VM/ESA), additional information to supply on the job card panel in Option 0 is spool machine ID, spool tag ID, and the spool machine type. Programmers can optionally change the spool machine types before batch-only logouts (Option 4) and any type logins (Option 5). When a request is processed, a machine type specification panel displays. The rest of the job card information displays to the control group where it can be further modified if necessary. These panels default to data entered in Option 0 (CCF PARMS).

Reports

You can produce certain LIB/CCF reports automatically at various stages in the change cycle. You can request other reports through Option 8 (REPORTS). Batch summary reports providing a comprehensive overview of ongoing programming activities are also available.

Automatically Produced Reports

Site options control what reports are produced automatically in the course of LIB/CCF operations. By default, four reports are automatically produced, but site administration can turn off any or all of them.

- A Change Request Report is directed to the person who opens the change request.
- An Assignment Notification Report is also directed to the requestor when the applications manager assigns the change request to a programmer.
- A Module History Report is directed to the programmer when a member is logged in using Option 5.
- When the programmer uses Option 7 to close the change request, a complete Change Request Report is produced showing the original change request, a report of all activity (logouts, logins, links, and so on), and a close section describing the details of the changes made to complete the request. Three copies of the Change Request Report are directed to the programmer. They can be distributed as the site deems best, ordinarily one for the requestor, one for the applications manager, and one for the programmer.

In LIB/CCF-ISPF(VM/ESA), if reports are produced automatically by certain options, the user can make changes to the Report Print Specification panel that displays when those options are executed.

Requested Reports

Site options also control which reports you can request through Option 8. These reports are available to the applications manager, the programmer, the members of the control group, or some combination of these, depending on what the LIB/CCF administrator specified. The reports can print or display online using Option 8.

LIB/CCF-ISPF(VM/ESA) users executing these panels also see a Report Print Specification panel to permit them to make any necessary changes.

The following is a list of the reports that applications managers at your site can use:

- Unassigned Requests Report (Option 8.1). The applications manager can request this report of the unassigned requests for his own application system or systems.
- Assigned Requests Report (Option 8.2). This report shows the requests that a manager assigned to the programmers who report to him.
- Module Logout Report (Option 8.3). This report displays information about all members logged out to one programmer or all the programmers reporting to a manager.
- Module History Report (Option 8.4). Only the member's owner (the last programmer to make a change to the member) or the owner's programming manager can generate this report unless otherwise specified by the Administrator. It displays the member history information.
- Login/Logout Status Report (Option 8.5). This report displays outstanding login and logout requests from one or all of the programmers. A programmer, manager, or control group member can request it.
- Linkedit/Bind Request Status Report (Option 8.6). This report displays a list of all requests for system links that were submitted to the control group for processing by one or all of the programmers. A programmer, manager, or control group member can request it.
- Pending Job Status Report (Option 8.7). This report displays a list of all jobs submitted by one or all of the programmers of the manager requesting the report. They can include jobs to transfer members between the test and production environments or jobs submitted to link edit a new production application. A programmer, manager, or control group member can request it.
- Change Request Report (Option 8.8). This option can generate a complete or partial Change Request report for a change request. A complete Change Request Report shows the original change request, a report of all activity (logouts, logins, links, and so on), and a close section describing the details of the changes made to complete the request. Only the owner of the change request (the programmer it was assigned to) can request this report, unless the control group was also authorized to do so.
- DB2 Reports (Option 8.10). This option can generate various DB2 for z/OS and OS/390 reports. See the "Reports" chapter for details.

Batch Change Request Status Report

The Change Request Status Report program can be used to print comprehensive summary reports. Depending on the options selected, this report can be produced all change requests, all open change requests, all unassigned change requests, or all closed change requests.

The report will list the change requests for either a single programmer, a manager, or an application system.

Optionally the Batch Change Request Status report will print the analysis section for closed change requests, as well as the status of logouts, links, moves, and batch jobs associated with each selected change request. See your LIB/CCF administrator for details on the availability and use of this report utility.

Note: For details on the availability and use of this report utility, see your LIB/CCF administrator .

LIB/CCF-CA Earl Reporting Interface

LIB/CCF is distributed with a [set the earl variable for your book] (Easy Access Report Generation) interface. [set the earl variable for your book] is a report generation system that uses a high-level programming language to produce customized reports. The interface provides access to information collected by LIB/CCF.

Note: For details on the availability and use of the LIB/CCF-CA Earl interface, see your LIB/CCF administrator.

LIB/CCF Batch Utilities

Four batch utilities are available to process change requests:

- Logout utility logs out multiple modules at the same time (for z/OS and OS/390 and VSE/ESA).
- Login utility logs in multiple modules at the same time (for z/OS and OS/390 only).
- Change request initiation utility opens and assigns change requests (for z/OS and OS/390 only).
- Change request close utility closes change requests (for z/OS and OS/390 only).

Note: For details on the availability and use of these utilities, see your LIB/CCF administrator.

Chapter 2: Requestor Function

This chapter describes the requestor function.

This section contains the following topics:

[Opening a Change Request \(Option 1\)](#) (see page 15)

Opening a Change Request (Option 1)

To open a change request, sign on to LIB/CCF and request Option 1 (OPEN). The system administrator must have defined you to LIB/CCF as a user authorized to open a change request. Complete the fields in the Open Change Request panel and press Enter. LIB/CCF displays the panel again, providing an opportunity for you to confirm the information or cancel the open function.

If you confirm the change request, LIB/CCF assigns an identification number to your request. Make a note of this number for future reference; all LIB/CCF functions are keyed to it.

LIB/CCF prints a Change Request Report when the change request is opened if the system administrator selected this option.

When you open a change request, the programming manager defined as responsible for the application system can view the request and assign it to a programmer. When the request is assigned, LIB/CCF prints an Assignment Notification Report and directs it to you if the system administrator selected this option.

The following example shows the Open Change Request panel. Site customization can change the appearance of the panel.

THU 06/31/03 ----- OPEN CHANGE REQUEST ----- 14.08.07

COMMAND ==>

REQUESTOR ==>

PHONE ==>

APPL/SYSTEM ==>

COORDINATOR ==>

MANAGER ==>

DEPARTMENT ==>

PHONE ==>

TYPE ==> PROBLEM() MODIFICATION() AUTHORIZATION==>

DESCRIPTION ==>

==>

==>

==>

==>

==>

==>

==>

==>

Available commands: APPLICATIONS

Panel Fields

The following fields appear on the Open Change Request panel. Complete all the fields that appear.

REQUESTOR

Your name.

PHONE

Your telephone number.

MANAGER

The name of your manager.

APPL/SYSTEM

The name of the application system the modification or problem refers to.

You can open requests only for applications that the LIB/CCF administrator authorized to your LIB/CCF ID. If you enter an incorrect application, LIB/CCF displays an error message. To display a list of applications you are authorized for, press the PF1 key. Alternatively, you can use the APPLICATIONS command to obtain this list (not available for LIB/CCF CA Vollie).

Note: The Manager-Application System pair entered on this panel will be cross-checked with the Manager-Application pair in the CCF Option 12.2 Manager Definition Table. The Manager-Application System pair is considered valid if:

- The Manager is directly associated with the Application per the Option 12.2 Manager Definition Table
- The Manager is a member of the Group ID (identified in the CCF Option 12.2 Group Definition Table) associated with the application per the Option 12.2 Manager Definition Table.

DEPARTMENT

Your department name.

COORDINATOR

The name of the person in the department who is assigned to coordinate the requested change to the application system.

PHONE

The telephone number of the coordinator.

DESCRIPTION

A full and detailed description of the problem to solve or modification to make.

TYPE

The type of request. Check either PROBLEM or MODIFICATION.

AUTHORIZATION

Your authorization code; required if the LIB/CCF administrator assigned one.

Available Commands

You can enter these commands on the command line of Option 1:

APPLICATIONS

(Except CA VOLLIE.) Displays a list of the applications you can request changes to. You can enter the application name in the APPL/SYSTEM field of the resulting display.

HELP or PF1

Accesses the LIB/CCF HELP facility to give you further information on the use of Option 1, and LIB/CCF generally. In ISPF, PF1 defaults to HELP, however, the user might have respecified it.

Chapter 3: Application Manager Functions

The applications manager can sign on to LIB/CCF and use Option 2 to view, assign, reassign, and reject change requests. Option 8 is also available to the applications manager; this option can produce a number of reports about ongoing change requests. See Chapter 9 for a detailed discussion of these reports.

This section contains the following topics:

[Assigning a Change Request \(Option 2\)](#) (see page 19)

[Reassigning a Change Request](#) (see page 22)

[Rejecting a Change Request](#) (see page 23)

Assigning a Change Request (Option 2)

When a requestor opens a change request, LIB/CCF places it in the queue of the applications manager responsible for the requestor's application system. When you select Option 2, you see the change requests in your queue, one at a time, in order of change request ID number.

You can assign the request that is now on the screen, reject it, or view the next request by pressing the Enter key.

To assign the request to a programmer, enter the programmer's CCF key in the assignment field. To assign the request to a group, enter the group name in the assignment field. The programmer must be defined to LIB/CCF as reporting to you. If the LIB/CCF administrator assigned an authorization code, you must supply that too.

You can enter any further instructions or comments on the assignment in the field for manager comments.

When the assignment is entered, LIB/CCF redisplay the change request with the following message:

```
CCF020KI: Press Enter to confirm; END or jump to cancel
```

You can change the assignment now, before you press the Enter key, or you can defer making any assignment by leaving the panel through the jump command or the End PF key. (PF3 for CA Roscoe and CA Vollie. PF3 is the default for ISPF, but the user can override it.)

The following example shows the Assign Change Request panel:

```
FRI 09/02/03 ----- ASSIGN CHANGE REQUEST ----- 10.22.51
COMMAND ==>

REQUESTOR ==> Jane Doe                TYPE ==> PROBLEM  ID: W0000001
      PHONE ==> x4038                MANAGER ==> Tom Smith
APPL/SYSTEM ==> ACCT                DEPARTMENT ==> Accounting
COORDINATOR ==> Gail Johnson        PHONE ==> X1234

DESCRIPTION ==> Subroutine LVSSECT must be changed to
                  accommodate rounding to the nearest tenth
                  of a cent.

MGR COMMENT ==>
                ==>
                ==>
                ==>
ASSIGNMENT ==> OPENED: 08/23/03 13.10.31 BY JONES
                  AUTHORIZATION==>
```

Panel Fields

You cannot modify the following fields:

REQUESTOR

The name of the user who opened the request.

TYPE

Either PROBLEM or MODIFICATION.

ID

The change request number that the LIB/CCF system assigned

PHONE

The telephone number of the requestor.

MANAGER

The name of the requestor's manager.

APPL/SYSTEM

The name of the application system the request affects.

DEPARTMENT

The department name of the requestor.

COORDINATOR

The name of the person in the requestor's department who is assigned to coordinate requests for changes to this application.

PHONE

The telephone number of the coordinator.

DESCRIPTION

A description of the problem to solved or modification to make.

OPENED

The date and time that the change request was opened, followed by the CCF ID that opened it. If the CCF ID was converted, the actual user ID appears in parentheses to the right of the CCF ID.

You can modify the following fields:

MGR COMMENT

The applications manager's comments on the change request. The manager can use this field to annotate the request or supply additional instructions to the programmer.

ASSIGNMENT

The CCF key for the programmer or group to whom the request is assigned.

AUTHORIZATION

The authorization code if required.

Panel Commands

You can enter the following commands on the assignment panel:

FIND <crid>

Finds and displays the specified Change Request ID. You can specify the ID in its complete form or by the right-most numbers.

Example: FIND WO000010 or FIND 10

=n (jump)

Where *n* is an option number. Jumps the user to another option.

REJECT

Displays a panel that lets you reject the currently viewed change request. The panel lets you enter comments and reasons for the rejection.

REASSIGN

Displays a panel that lets the manager reassign an assigned change request from one programmer or group to another. Both programmers or groups must be defined to LIB/CCF as reporting to the manager, otherwise, the LIB/CCF administrator must make the reassignment.

Once the change request is assigned to a programmer or group, it appears in that programmer's queue (Option 3) or the queues of all the programmers that are members of the specified group.

Reassigning a Change Request

You can reassign a change request to another programmer or group reporting to you by entering the REASSIGN command from Option 2 (ASSIGN). Optionally, you can reassign all change requests assigned to a programmer or group. Only the LIB/CCF administrator can reassign a programmer or group not defined to LIB/CCF as reporting to you.

If a change request is reassigned to a programmer, as opposed to a group, the ownership of any work in progress is also reassigned (that is, any LIB/CCF tracking records are updated to reflect the new programmer ID).

When reassigning to a group, the ownership of any work in progress is not reassigned (this allows CCF to determine the ownership of each module).

```
THU mm/dd/yy ----- REASSIGN CHANGE REQUEST ----- 09.45.30
COMMAND ==>

-

REQUEST ID ==>                (blank for ALL requests)
PROGRAMMER ==>                REASSIGN TO PROGRAMMER ==>
```

Panel Fields

The panel fields are:

PROGRAMMER

The LIB/CCF ID of the programmer or group to whom the change request is currently assigned.

REQUEST ID

The change request number. Leave this field blank to reassign all the change requests that were assigned to the specified programmer.

REASSIGN TO PROGRAMMER

The LIB/CCF ID of the programmer or group to whom you are reassigning the requests.

Rejecting a Change Request

You can reject an unassigned change request by entering the REJECT command from Option 2 (ASSIGN). Rejecting a change request lets you provide documentation on why the request was rejected and closes the change request.

THU mm/dd/yy ----- REJECT CHANGE REQUEST ----- 09.44.33

COMMAND ==>

-

REQUEST ID: W0000009

REASONS ==>

==>

==>

==>

==>

==>

==>

==>

==>

==>

Record any comments and reasons for rejecting this request.

Press Enter to reject, END to cancel

Panel Fields

The panel fields are:

REQUEST ID

Displays the change request number.

REASONS

Enter the reasons for rejecting the change request.

Chapter 4: Programmer Functions

When an application manager assigns a change request to you or to a group where you are defined as a member, it becomes one of the change requests that you can view by selecting Option 3 on the LIB/CCF main menu. Each change request has a unique number that LIB/CCF assigned. You can find individual change requests by number, specifying FIND WOnnnnnn or FIND nnnnnn on the command line of Option 3, where nnnnnn is the change request number. Or you can view them one after the other in numerical order simply by pressing the Enter key.

When you determine which AllFusion CA-Librarian members must be changed to fulfill the change request, log them out from the production environment to the test environment using Option 4.

Use Option 5 to log the changed and fully tested programs back into the production environment.

Use Option 6 to initiate a production link request after verifying that the production compile is complete.

This section contains the following topics:

[Displaying Assigned Change Requests \(Option 3\)](#) (see page 26)

[Logging Out a Member to Test \(Option 4\)](#) (see page 28)

[Logging in a Member to Production \(Option 5\)](#) (see page 35)

[Initiating a Production Link Request \(Option 6\)](#) (see page 45)

[Closing a Change Request \(Option 7\)](#) (see page 51)

[Display Panels](#) (see page 52)

Displaying Assigned Change Requests (Option 3)

Each change request appears by itself on the screen. You can look at them one after the other or go straight to a specific change request by entering FIND and the change request number on the command line. You can use the scroll forward, scroll backward, top, and bottom PF keys in viewing the change requests.

```
FRI 09/02/03 ----- ASSIGNED CHANGE REQUEST ----- 10.22.51
COMMAND ==>

REQUESTOR==> Jane Doe                TYPE==> PROBLEM  ID: W0000001
      PHONE ==> x4038                MANAGER ==> Tom Smith
APPL/SYSTEM ==> ACCT                DEPARTMENT ==> Accounting
COORDINATOR ==> Gail Johnson        PHONE ==> X1234

DESCRIPTION ==> Subroutine LVSSECT must be changed to
                  accommodate rounding to the nearest tenth
                  of a cent.

MGR COMMENT ==> This must be done by the 15th of next
                  month.

                  OPENED: 08/23/03 13.10.31 BY JONES
```

Panel Fields

You cannot make modifications on this panel. The fields that appear are:

REQUESTOR

The name of the user who opened the request.

TYPE

Either PROBLEM or MODIFICATION.

ID

The change request number that the LIB/CCF system assigned.

PHONE

The telephone number of the requestor.

MANAGER

The name of the requestor's manager.

APPL/SYSTEM

The name of the application system the request affects.

DEPARTMENT

The department name of the requestor.

COORDINATOR

The name of the person in the requestor's department who is assigned to coordinate requests for changes to this application.

PHONE

The telephone number of the coordinator.

DESCRIPTION

A description of the problem to solve or modification to make.

MGR COMMENT

The application manager's comments on the change request. The manager can use this field to annotate the request or supply additional instructions to the programmer.

OPENED

The date and time that the change request was opened, followed by the CCF ID that opened it. If the CCF ID was converted, the actual user ID appears in parentheses to the right of the CCF ID.

Panel Commands

You can enter the following commands on this panel:

FIND <crld>

Displays the specified change request number. You can specify the number in its complete form or by the right-most numbers.

Example: FIND WO000010 or FIND 10

jump command

(Specified as =*n*, where *n* is an option number) Moves the user to another panel display.

PRINT

Prints one copy of the change request that is currently viewed using the default print location.

LIB/CCF-ISPF(VM/ESA) users can specify the destination of print requests and other pertinent information from the Report Print Specification panel. You can reach this panel through Option 0. It redisplay for modification when reports are produced. You can route print requests either to spool or to a user-defined VM/ESA file.

HELP

Invokes the HELP facility for further instructions. For CA Vollie and CA Roscoe, PF1 also invokes the HELP facility. For ISPF, PF1 is the

default

HELP key. However, the user might have redefined it.

The last change request displayed is automatically carried over to the panels for Options 4, 6, 7, and 8.8 (Logout, Close, Link, and Change Request Report generation).

Logging Out a Member to Test (Option 4)

Once you assign a change request, you can log out the production source modules needed to complete it by using Option 4. Option 4 displays up to three panels.

- Use the first to specify the change request number.
- The second panel then appears, showing a numbered list of valid pairs of production and test master files. Enter a member name or wildcard specification and the number of the correct pair of master files from the list. You can scroll this list, using the PF keys. (Wildcard specification is not available in LIB/CCF CA Vollie.)
- If you enter a wildcard specification, a third panel appears showing a selection list of the members on the production master file specified. You can scroll this list using the PF keys and select any number of members to log out. (Selection list processing is not available in LIB/CCF CA Vollie.)

The logout procedure copies the members you specified from the production master file to the test master file associated with it.

```
FRI mm/dd/yy ----- MODULE LOGOUT ----- 12.22.02
COMMAND ==>

MODULE ==>                                REQUEST ID ==> W0000001
      (or "wildcard" name for selection list)

PRODUCTION MASTER FILE ==>

AVAILABLE FILES: CHAIN DESC./CHAIN NUMBER/PRODUCTION/TEST:

001) PAYROLL CHAIN                                (00001)
      LIBR.PROD.MAST
      LIBR.TEST.MAST

002) ACCOUNTING CHAIN                             (00002)
      LIBR.PROD.MAST2
      LIBR.TEST.MAST2
*** END OF LIST ***
```

Panel Commands

You can enter the following commands on the logout panels:

=n (jump)

Where *n* is an option number. Jumps the user to another option.

HELP

Invokes the HELP facility for a description of the logout procedure. For CA Vollie and CA Roscoe, PF1 also invokes the HELP facility. For ISPF, PF1 is the *default*. However, the user might have redefined the HELP key.

When LIB/CCF is installed, the LIB/CCF administrator determines whether individual programmers can log out members directly or a designated group of control personnel is responsible for this function.

If your site allows it, LIB/CCF moves the selected member from the production master file to the test master file as soon as you enter the necessary information on the logout panel (Option 4).

The movement of the member is accomplished online or in batch, depending on the option your site selected. If your site chose online transfer, it takes place immediately. If batch transfer was selected, LIB/CCF submits a job and places an entry in the pending job status display.

With LIB/CCF-ISPF(VM/ESA), programmers can change the spool machine types before batch logouts. When a programmer makes a logout request, LIB/CCF displays a Machine Type Specification panel. The rest of the job card information displays to the Control Group, where that group can further modify it if necessary. The default values of these panels are the data that was entered in Option 0.

If your site requires the control group to perform logouts, then, instead of effecting an immediate transfer, your Option 4 entry places a request in the Option 9 Movement Status display. The control group sees this display as a queue of outstanding requests, which members of the control group process on behalf of the programmer. Again, the transfer can take place online or in batch, depending on the option your site selected.

LIB/CCF records all activity pending for a member. No two programmers can log out the same member at the same time, unless your site allows multiple logouts of a member.

History Create Panel

LIB/CCF maintains historical text describing all changes to members under its control. If no history exists for the member you are logging out, a History Create/Modify panel appears. See page 4-11 for more information on this panel.

Complete the panel and press Enter to continue. The END PF key cancels the logout.

Once the member is moved to the test master file, you can work on it there.

Wildcard Specification

With LIB/CCF CA Roscoe, ISPF(TSO), and ISPF(VM/ESA), you can request a member selection list by entering a wildcard specification instead of a member name on the Option 4 panel. When you specify only an asterisk (*), a selection list of the entire master file appears. If you specify a wildcard, a subset of the members on the AllFusion CA-Librarian master file is selected.

There are two ways of using the wildcard specification:

abc*

Placing an asterisk at the end of the specification selects all members whose names start with the characters preceding the asterisk.

a*c

Placing an asterisk in a character position selects all members whose names are three characters long and contain "a" in the first position and "c" in the third position. You can use any number of asterisks, as needed. Each one represents one character.

You can use these two types together. For example, specifying a**c* selects members that have an "a" as the first character, anything as the second or third character, "c" as the fourth character, and any number of unspecified characters after that.

Logout Selection List (Except CA Vollie)

You can use the logout selection list to logout one or multiple members from the specified production master file. You can scroll the list using the PF keys, selecting members and subsequently deselecting them before processing. Under ISPF, you can also use the LOCATE, FIND, and RFIND commands to position the selection list. Under CA Roscoe, you can use the FIND and NEXT commands. The selection list is not available in LIB/CCF-CA Vollie.

```

WED mm/dd/yy ----- LOGOUT SELECTION LIST ----- ROW 1 OF 51
                                                    01.32.34
COMMAND ==>                                SCROLL ==> PAGE

PROD MASTER: LIBR.PROD.MAST                      C/R: W0000013
TEST MASTER: LIBR.TEST.MAST

MEMBER          OUTSTANDING  DESCRIPTION
CDINTM6
CDINTM12  SELECTED
CDINTM24  SELECTED  W0000006  CD-24 MONTH INTEREST
CDINTM36  SELECTED  CD-36 MONTH INTEREST
CDINCALC   CD INTEREST CALCULATOR
CDREPORT   CD REPORT GENERATOR
STOCK
STOCKCNV
TLHASH      W0000003 *** No Description ***
TLWEDR      W0000003
TLXQAW      W0000014
TLYQAW      W0000014
TLZSDF      W0000014
XXON

```

Each line in the selection list contains one member name. If the member is currently logged out to another user, the change request number displays under the column heading OUTSTANDING. If your site permits a member to be logged out to multiple users, the member can be logged out with more than one change request. Only the first change request number displays.

Line Selection Commands

You can enter the following line selection commands next to a member name in the logout selection list.

S

Selects a member for logout. A status of SELECTED displays to the right of the member name.

D

Removes the SELECTED status from a member. Use this line selection command if you decide not to logout the member after it is selected.

I

Displays an AllFusion CA-Librarian member description (up to 30 characters) under the DESCRIPTION heading. If the member does not have a description, an appropriate message displays.

Panel Commands

You can enter the following commands on the logout selection list panel.

DESELECT [*member*|*mem**]

Deselects a member before the PROCESS or SUBMIT command. You can specify an asterisk to deselect multiple members (see the SELECT command above).

PROCESS

Logs out all members that were selected with the S line selection command. Can be abbreviated to P. As when a single member is logged out, you are requested to provide history information if it does not exist. Similarly, if you selected a member currently logged out with another change request and multiple logouts are allowed, you are requested to confirm the new logout. If you decide not to continue with the logout or if your site does not allow multiple logouts, the request fails.

In the event that an error condition prevents the logout of a member from successfully completing, a message displays at the terminal, a status of FAILED displays to the right of the member name, and processing is suspended. After correcting the condition that caused the logout to fail, you can use the REFRESH command to rebuild the list. By entering the PROCESS command again, the logout is restarted with the next selected member.

As each logout successfully completes, an informational message displays on the message line and a status of PROCESSED displays to the right of the member. This can indicate that the member was copied to the test library, that a batch job was submitted to copy the member, or that the control group was notified of the request, depending on the option the LIB/CCF Administrator chose.

When all selected members are processed, an informational message displays on the message line.

REFRESH

Rebuilds the logout selection list.

SELECT [*member*|*mem**]

Selects the specified member for logout. An asterisk (*) at the end of a character string selects all members that meet that member name criteria for logout. For example, the following command selects all member names beginning with COB2.

```
SELECT COB2*
```

Specifying a member name that does not exist in the selection list adds that member name to the list and selects it for logout. This is useful when you need to logout a new member to reserve the member name. It is also useful when you select members with the same character prefix, but also need to select a member or members that did not have that character prefix.

SUBMIT

Submits a batch job (that executes the batch logout utility \$CCFB102). The job logs out all of the members selected from the selection list.

The History Create/Modify panel displays once before the submit for members that do not have any LIB/CCF history information. The information you provide on the History Create/Modify panel is used for any members that do not already have history information.

LIB/CCF tracks the job by adding a Job Submission Record (JSR) to the Option 11 queue.

Adding a Member to Production

There are times when you want to add a new member to a LIB/CCF-controlled production master file. For example, a change request can require the creation of a new program. First, you must log out the member from Option 4 even though the member does not already exist on the production master file. This reserves the member name that you choose to give the new member. During the logout of the new member, LIB/CCF displays a History Create/Modify panel:

FRI mm/dd/yy -----	HISTORY CREATE/MODIFY: NEWMOD -----	14.25.15
SYSTEM ==>	REQUEST ID: W0000001	
DESCRIPTION ==>		
LANGUAGE ==>		
ABSTRACT ==>		
==>		
==>		
==>		
==>		
==>		
==>		
==>		
==>		
==>		
==>		

Important! You must enter a description of the member, the application system where it belongs, detailed abstract, and a programming language. The programming language entered in this panel determines what action takes place when that member is logged in.

For example, specifying a language of COB might compile the member at login. Your site determines the language to action relationship. If you are not sure of the correct language to assign to a particular member, check with your manager or the LIB/CCF administrator (since supplying the wrong language for a member causes login problems).

If you provide an invalid language (one not defined to LIB/CCF), LIB/CCF issues an error. Pressing PF1/13 provides a list of valid languages and a description of each (LIB/CCF-CA Vollie does not provide a description). You can either enter the correct language from this panel, or press PF3 to return to the History Create/Modify panel and enter the language there.

LIB/CCF uses the information you enter here to create a history member. If your site allows it, you can change the language (and any other information on this panel) from Option 5 (LOGIN) through the HISTORY command.

Complete the panel and press Enter to continue. The END PF key cancels the logout.

After the information is entered, LIB/CCF issues the message:

Assuming new member.

Because the member is new, you must create it on the test master file that was specified during logout. When you finish working on it, you can log it in from Option 5.

Note: Once a member is added in this manner, the version is set to NEW. Members whose version is NEW cannot be logged out multiple times (as existing members can) when ALLOWMULT is set to YES. Attempting this results in a CCF040HW message, and this second logout request will not be fulfilled.

Logging in a Member to Production (Option 5)

When your work on a member is finished and you are ready to return it to the production environment, use Option 5 to perform the login function. Option 5 lets you process a single member or multiple members associated with a change request. The latter is referred to as Group Processing, described in the next section.

```

WED 04/04/03 ----- MODULE LOGIN ----- Row 1 to 4 of 4
                                           11.40.36
COMMAND ==>                               SCROLL ==> PAGE
Available cmds: PROCESS/DELETE/HISTORY/BIND/EDIT/TEST n/INFO, SELECT<F> crid

      MODULE  CHAIN|MODULE TRACKING RECORD:
01) PGM01    00001 CR:W0000000 LOGOUT STAMP:03/14/03 13.08.21

02) PGM02    00001 CR:W0000000 LOGOUT STAMP:03/14/03 13.09.11

03) PGM04    00001 CR:W0000000 LOGOUT STAMP:03/14/03 13.10.17

04) PGM05    00001 CR:W0000000 LOGOUT STAMP:03/14/03 13.11.15

***** Bottom of data*****

```

Each entry shows the name of the member to log in, the chain number, the request number, and the date and time the member was logged out. If this logout request was submitted to a control group and then rejected by that group for any reason, the rejected request indicator also displays.

To see the names of the production master file where the member resides and the name of the test master file where the member was copied during logout and other information enter I for information either on the Command Line or on any of the entries. The following panel will be displayed with more information for all of the entries from the Module Login panel. This is only a VIEW panel, commands may not be entered from this panel.

WED 04/04/03 ----- MODULE LOGIN INFORMATION -----		Row 1 to 3 of 4
COMMAND ==>		12.04.35
		SCROLL ==> PAGE
MODULE CHAIN MODULE TRACKING RECORD:		
01) PGM01	00001 CR:W0000000	LOGOUT STAMP:03/14/03 13.08.21
	PROD MASTER: LIBR.TREEL01.PRODMASTER	
	TEST MASTER: LIBR.TREEL01.TESTMASTER	
	VERS=03141250	
02) PGM02	00001 CR:W0000000	LOGOUT STAMP:03/14/03 13.09.11
	PROD MASTER: LIBR.TREEL01.PRODMASTER	
	TEST MASTER: LIBR.TREEL01.TESTMASTER	
	VERS=03141251	
03) PGM04	00001 CR:W0000000	LOGOUT STAMP:03/14/03 13.10.17
	PROD MASTER: LIBR.TREEL01.PRODMASTER	
	TEST MASTER: LIBR.TREEL01.TESTMASTER	
	VERS=03141253	

The second line for each entry displayed on the information panel is the name of the production master file where the member resides. The third line is the name of the test master file where the member was copied during logout processing. The last line is the date and time to supply for the AllFusion CA-Librarian version check during login processing.

The form of this date/time value is:

mmddhhmm

(month, day, hour, minute) if the member was updated. For VM/ESA or CA Vollie sites, the date format can be *ddmm*.

mmdd

If the member was never updated.

NEW

If the member was newly created to satisfy this change request.

The fourth line can also show information supplied by a site user exit.

Panel Commands

You can use the following commands in the login panel:

BIND *n*

(Except CA Vollie.) The value of *n* is the number of the Module Tracking Record entry. For use with DB2 for z/OS and OS/390 bind options members only. Displays the DB2 Plan Update panel. See the “DB2 for z/OS and OS/390 Support In LIB/CCF” chapter for details on the BIND command.

DELETE *n*

The value of *n* is the number of the Module Tracking Record entry. This deletes the entry (that is, it cancels the logout) and also *deletes the member from the test master file*, except when the MTR has a VERS=*NEW* or *REJECTED* indicator. For MTRs that represent a new module or MTRs that the control group rejected, the MTR is deleted, but the module is not deleted from the test master file.

EDIT *n*

(For z/OS and OS/390 ISPF only.) The value of *n* is the Module Tracking Record entry number. Invokes an ELIPS edit session on the specified member. See the *ELIPS Command Reference* for information on editing a member with ELIPS.

FIND <string>

Positions the display to the first occurrence of the specified string. Do not use delimiters.

HELP

Invokes the LIB/CCF help facility for a display of further information on this panel.

HISTORY *n*

The value of *n* is the number of the Module Tracking Record entry. Displays the History Create/Modify panel for the member. You can modify the SYSTEM, DESC, LANGUAGE, and ABSTRACT information. Press Enter to save the changes or PF3 to cancel the history information update. LIB/CCF can disable this command.

jump command

Specified as =*n*, where *n* is an option number, moves the user to another panel display.

NEXT

(CA Roscoe and CA Vollie.) Positions the display to the next occurrence of the string that the FIND command previously specified.

PROCESS *n*

The value of *n* is the number of the Module Tracking Record entry. The PROCESS command deletes the entry. It then, according to how the LIB/CCF administrator defined the system, either copies the member from the test master file to the next library in the library promotion path (either quality assurance or production) or initiates a request to the control group.

Depending on site options, if a request is sent to the control group, this command can also lock the member on the test master file so that no further changes can be made to it.

Once copied, the member is deleted from the test master file. The PROCESS command can also resubmit login requests the control group rejected by removing the rejected entry and creating a new request.

RFIND

(ISPF only.) Positions the display to the next occurrence of the string that the FIND command previously specified.

SELECT[F] *cr#*

(Except CA Vollie.) F is an optional character indicating the type of SELECT. The value of *cr#* is the number of the LIB/CCF change request to select. See the section on LIB/CCF Group Processing.

TEST *n*

The value of *n* is the Module Tracking Record entry number. Submits a job for the test member. Generally, the job performs a test compile of the member from the test master file. However, the LIB/CCF administrator defines the JCL skeleton used for the job submission. It can contain any number of steps and perform any required processing.

LIB/CCF does not track the submitted job (no Job Submission Record is placed in the Option 11 queue).

If the LIB/CCF administrator did not define the JCL skeleton or it was defined with a language type of NOP, the job is not submitted.

INFO

This command displays more information about each entry in the Module Login panel. You can enter an I on the command line or on any of the entries.

When you enter the PROCESS command, the login function proceeds. A History Update panel appears where you can document the changes that you made to the member to satisfy this change request. LIB/CCF produces a history report if the option to do this was specified at installation time. The entry is then removed from your login display.

With LIB/CCF-ISPF(VM/ESA), programmers can change the spool machine types before login. When a request is processed, a Machine Type Specification panel displays. The rest of the job card information displays to the Control Group, where it can be further modified if necessary. The default values of these panels are the data that was entered in option 0.

What happens next depends on whether the programmer or the control group is responsible for the actual transfer from the test master file back to the production master file.

If programmers are responsible, the member is transferred back to the production master file. If the control group is responsible, an entry is made for the member in the Login/Logout Status display, Option 9. The actual transfer to the production environment does not take place until a member of the control group processes this entry.

LIB/CCF verifies that the version of the production member that is being updated was not changed since the member was logged out. If the verification fails, then the login request fails, and you must resolve discrepancies. See the section titled *There are Multiple Logouts* in Chapter 8 for details. Once the problem is corrected, you can resubmit the login request.

When the login function is complete, the updated module is returned to the production master and the corresponding object code is moved into the production object library.

You can move the object code from a test object library, or create it by recompiling the source when it is logged back in, according to the method your LIB/CCF administrator selected during installation and customization.

Note: If the object code is copied from the test object to the production object, the Source-Load Audit Trail (SLAT) variables in the executable code do not match the SLAT variables in the production source.

Logging in Multiple Members Using Group Processing (Except CA Vollie)

The facilities of Group Processing available in LIB/CCF CA Roscoe, ISPF(TSO), and ISPF(VM/ESA) let the programmer display the status of members associated with a change request and process those members in a group by entering one command. You must first select the members to process using the SELECT command from the login panel.

```

THU mm/dd/yy ----- GROUP PROCESSING-CR:W0000001 ----- 15.32.44
COMMAND ==>                                SCROLL ==> PAGE
MODULE   (PRTY) PROD MASTER / CURRENT MASTER
CDINTM12 (000) LIBR.PROD.MAST             VERS: 02261152
           LIBR.TEST.MAST
           LOGOUT: mm/dd/yy 14.50.53  LANGUAGE: ASSEMB
           CURRENT STATUS: Under Development
CDINTM24 (002) LIBR.PROD.MAST             VERS: 02261243
           LIBR.TEST.MAST
           LOGOUT: mm/dd/yy 14.51.32  LANGUAGE: ASSEMB
           CURRENT STATUS: Under Development
CDINTM36 (002) LIBR.PROD.MAST             VERS: 11191810
           LIBR.REJECT.MAST
           LOGOUT: mm/dd/yy 14.53.35  LANGUAGE: ASSEMB
           CURRENT STATUS: Login Rejected by CNTL

```

The format of the SELECT command is:

SELECTx cr#

The value of x designates the type of SELECT to do. The value of cr# indicates the LIB/CCF change request number to select.

You can specify the SELECTx portion of the command in one of the following forms:

SELECT

Selects all members currently logged out for the specified change request for that CCF user ID, now with the group processing option. If your site is using the control group to process logins, the display includes members rejected by the control group, but not members that the control group has pending.

Note: If logging out under groups, SELECT shows only the logged out members of the CCF USER ID of the GROUP that is logged out to this ID.

SELECTF

Selects all members that were logged out or logged in with this change request. This includes all members that were logged in to production and those that the control group has pending. Members that were logged out then deleted are not selected.

You can specify the change request number as the full LIB/CCF change request number, as follows:

```
SELECT W0000019
```

Or you can abbreviate it to only the significant digits of the change request number, as in:

```
SELECT 19
```

You can also abbreviate the SELECTx command as follows:

```
S 19 or SF 19
```

Group Processing displays a selection list containing three lines for each member. You can scroll the list using the PF keys. Use the FIND command and RFIND (ISPF only) or NEXT (CA Roscoe only) commands to position the display. All members appearing in the list were already selected. You do not have to select them individually before processing.

The first line of each entry includes the member name, the production master file that the member was logged out from, and the date and time to supply for the AllFusion CA-Librarian version check during login processing. The second line contains the master file where the member currently resides and date (mmddy) the member was logged out. The third line contains the member's current status and the logout time (*hhmmss*).

The current status is one of the following:

Under Development

The member is available for modification in a test library or a reject library. The programmer can process it.

In Development (Reject)

The member was rejected from a Q/A library by the control group. It is available for modification in a test or reject library. The programmer can process it.

LOGOUT not completed

A logout of the member was requested, but the control group has not yet processed it.

Logged in by programmer

A login of the member was requested, but the control group has not yet processed it.

Login rejected by CNTL

The control group rejected the programmer's login request. The member is available for modification in the test library. The programmer can process it.

Batch job outstanding

LIB/CCF submitted a batch job to process this member, which is currently outstanding. Processing of the batch job must successfully complete before further processing can take place on this member. See the Rerunning a Failed Batch Job section in the “Reports” chapter for more information.

In Q/A - NOT Compiled

The member was moved to a quality assurance library, but the compile processing was not performed.

In QA - Compiled

The member was moved to a quality assurance library and any necessary compile processing is complete.

Production - NOT Compiled

The member was moved back into the production library, but no compile processing was performed.

Production - Compiled

The member was moved back into the production library, and any necessary compile processing is complete

Not logged out under z/OS and OS/390 or VM/ESA

An LIB/CCF system -- other than the one used for processing the login -- logged out the member. The member must be logged in on the system where the logout originated.

**** Deselected ****

This member was deselected and must be selected again before group processing can process it. You can select the member by placing an S to the left of the member name in the selection list or by issuing another SELECTx command from the command line.

**** Processed ****

The requested processing was done for this member.

From the group processing display, you can process the selected members with the BIND, DELETE, EDIT, HISTORY, PROCESS, and TEST commands described previously. However, from the group processing display, these commands have additional syntax for added flexibility.

This syntax is described following.

BIND [*library*|*lib**[(*member*|*mem**)]]

DELETE [*library*|*lib**[(*member*|*mem**)]]

EDIT [*library*|*lib**[(*member*|*mem**)]]

HISTORY [*library*|*lib**[(*member*|*mem**)]]

PROCESS [*library*|*lib**[(*member*|*mem**)]]

TEST [*library*|*lib**[(*member*|*mem**)]]

In addition to the commands listed above, the DESELECT and SUBMIT commands are also available:

DESELECT [*library*|*lib**[(*member*|*mem**)]]

Deselects a member before the PROCESS or SUBMIT command. Specify a member name prefix followed by an asterisk to deselect all members starting with that prefix. Specify just an asterisk to deselect all selected members.

SUBMIT [cmd[library|lib*[(member|mem*)]]]

Submits a batch job. The job performs the processing specified by the *cmd* parameter. If all parameters are omitted, PROCESS is the default. If multiple members are processed, another job is submitted for each member requiring compile or move processing.

For members that do not have any LIB/CCF history information, the History Create/Modify panel displays before the submit. LIB/CCF tracks the job by adding a Job Submission Record (JSR) to the Option 11 queue.

The SUBMIT parameters are:

cmd

Specify DELETE, PROCESS, or TEST to submit a job to perform the specified command.

library

Specify the current library name, a current library name prefix followed by an asterisk (for example, TESTMA*), or just an asterisk.

member

Specify the member name, a member name prefix followed by an asterisk (for example, CBL*), or just an asterisk.

Rather than processing each member separately, all selected members with a status of Under Development, In Development - Reject, or Login rejected in CNTL are logged in when the PROCESS command is entered or deleted when the DELETE command is entered. Members are processed according to the options the LIB/CCF administrator selected, as described in the previous section. Members with any other status are not processed.

While processing all members for a change request together is desirable in most cases, you might frequently want to exclude certain members from the group, leaving them to process at a later time. To prevent a member from processing, enter a D on the line selection field to the left of the member name. DESELECTED appears as the current status. When a command is entered, deselected members are not processed. If you decide that you want to login a member you already deselected, you can select it again by entering an S in the line selection field.

The SUBMIT function submits a job that can spawn additional jobs, thereby freeing the keyboard for other functions. For non-SUBMIT function processing, as each member is processed, an informational message displays. If processing submits a job, the message includes the job name and number. The keyboard remains locked until all members are processed.

When LIB/CCF processing submits z/OS and OS/390 batch jobs and you specify the NOTIFY= operand on the JOB card, the message generated when the job completes can interrupt the display, halting processing until the user intervenes. Since group processing is designed to process a large volume of members at one time, it is suggested that you not use the NOTIFY= operand on the JOB card. However, if the jobs that are submitted will not execute immediately, the group processing display is probably not interrupted by the use of the NOTIFY= operand.

Once a command is issued, you must enter another SELECTx command before you can process any other members. Alternatively, the REFRESH command produces an updated display for the change request.

Initiating a Production Link Request (Option 6)

Once you update all source members for a change request, you probably need to relink the application. You can do this by proceeding to Option 6 after the login functions are complete. Site options determine whether you can proceed with the link of a change request with unresolved activity, such as outstanding Module Tracking Records, Module Movement Records, Job Submission Records, or duplicate System Link Records.

```

THU mm/dd/yy ----- SYSTEM LINK EDIT ----- 15.42.44
COMMAND ==>

PRODUCTION MASTER FILE ==> 001                REQUEST ID ==> W0000004
LKED SYSIN MEMBER ==>                        OR      LKED JCL MEMBER ==>
OVERRIDE SKELETON ==>

  AVAILABLE FILES: CHAIN DESC./CHAIN NUMBER/PRODUCTION/LOAD:
001) PAYROLL CHAIN                                (00001)
      LIBR.PROD.MAST
      LIBR.PROD.LOAD
002) ACCOUNTING CHAIN                             (00002)
      LIBR.PROD.MAST2
      LIBR.PROD.LOAD2

*** END OF LIST ***

```

Your LIB/CCF administrator also specifies whether link-edits are performed online or by the submission of a batch job (online link-edits are supported only in the z/OS and OS/390 LIB/CCF environment).

Note: If online link-editing was specified as an installation option, only the LKED SYSIN MEMBER field appears on the above panel.

As is the case with the transfer of members to and from production files, the responsibility for actually performing the link-edit can rest either with the control group or with the programmer.

If the programmer is responsible, the link-edit is performed immediately. If the control group is responsible, the request is placed in the control group's queue, to be processed from Option 10 (LINK STATUS).

For batch link-edits, for each application to link, you must provide the input for the linkage editor in a member on the production master file containing the source module.

The input can be in one of two forms:

- The site can provide a standardized link-edit JCL skeleton and require that, when the link request is initiated, a member containing only the linkage editor input statements is named on the Option 6 panel. If your site uses this option, LIB/CCF generates the appropriate JCL when the link request is submitted.
- For applications with more specialized requirements (that is, the creation of several executable modules at one time), you can provide a member containing a complete JCL stream.

Batch Link-Edit for CA Vollie

When you enter Option 6, you see a list of production master files and associated core image libraries. Enter the number of the pair that defines the master file containing the associated linkage editor input and the core image library where the phases should be linked.

You must also enter either a LINK INPUT member or a LINK JCL member. The required contents of these members are as follows:

LINK INPUT MEMBER

Must contain the required link-edit PHASE and INCLUDE statements. Other link-edit control statements are optional. LIB/CCF-CA Vollie does an automatic phase backup (when requested) based on the names specified in the PHASE statements.

LINK JCL MEMBER

Must contain the complete link-edit JCL stream. The member must consist of a single job and include POWER JCL. The automatic phase backup is not done unless such a step is contained in the JCL member itself. The link JCL member is submitted as is.

If you entered a LINK INPUT member, you also see the Linkage Editor Options Selection panel. To choose an option, place an X next to the display. Selected options are included on the generated link-edit ACTION control statement.

Batch Link-Edit for CA Roscoe and ISPF(TSO)

When you enter Option 6, you see a panel asking for the Change Request ID and the function you want to perform (a link or bind). For details on binding a DB2 for z/OS and OS/390 application, see Chapter 7, "DB2 for z/OS and OS/390 Support in LIB/CCF." If you allow the panel to default to L (for link), you see a list of production master files and their associated production load libraries. Enter the number of the pair that defines the master file containing the associated linkage editor input and the load library where the modules should be linked.

You must also enter either a LKED SYSIN member, a LKED JCL member, and an OVERRIDE SKELETON name. The required contents of these members are as follows:

LKED SYSIN MEMBER

Mutually exclusive with LKED JCL MEMBER. Specifies a production master file member that contains the required link-edit INCLUDE statements that reference a ddname of OBJECT and a link-edit NAME statement specifying the REPLACE(R) option. Other link-edit control statements are optional. LIB/CCF does the automatic load module backup, when requested, based on the load modules the link-edit NAME statements name. This member is used as SYSIN to the default link skeleton unless an OVERRIDE SKELETON is specified.

LKED JCL MEMBER

Mutually exclusive with LKED SYSIN MEMBER and OVERRIDE SKELETON. Specifies a complete link-edit JCL stream that resides on the production master file. LIB/CCF submits the member as is for execution. The job name is derived from the job card included in this member, not from the Option 0 Job Specification. The automatic load member backup is not done unless a step is inserted into the JCL stream to accomplish it.

VERRIDE SKELETON

Mutually exclusive with LKED JCL MEMBER. Requires a LKED SYSIN MEMBER.
Specifies a skeleton to use in place of the default link skeleton. The skeleton must reside in the skeleton library for TSO and VM/ESA or the library where LIB/CCF is installed for CA Roscoe. The LKED SYSIN MEMBER is used as SYSIN to the **VERRIDE SKELETON**.

If you entered a LKED SYSIN MEMBER, you also see the Linkage Editor Options Selection panel. To choose an option, place an X next to it on the display. Selected options are inserted into the PARM= field of the EXEC statement in the JCL stream that is submitted.

Note: If online link editing was specified as an installation option, only the LKED SYSIN MEMBER field appears on this panel.

Batch Link-Edit for ISPF(VM/ESA)

LIB/CCF-ISPF(VM/ESA) can submit a link-edit job stream to an z/OS and OS/390, VSE/ESA, or VM/ESA batch machine. When you enter Option 6, you are prompted with a panel asking for the LIB/CCF Change Request number, followed by a panel presenting you with a list of production master files and their associated production load or core image libraries. Enter the number of the pair that defines the master file containing the associated linkage editor input and the load or core image library where the modules should be linked.

You must also enter some combination of the fields listed following to describe the link-edit input.

SYSIN MEMBER

Mutually exclusive with JCL MEMBER and MODULE NAME. Specifies a member on the production master file that contains the appropriate link-edit control statements. This member is used as input to the default link-edit skeleton or, if specified, the OVERRIDE SKELETON. A Machine Type Specification panel displays letting you change spool machine types. LIB/CCF determines which default skeleton to use based on the operating system supplied. You also see the Linkage Editor Options Selection panel. To choose an option, place an X next to it on the display.

When linking VSE/ESA applications, this member must contain the required link-edit PHASE and INCLUDE statements. Selected link-edit options are included on the generated ACTION link-edit control statement.

When linking z/OS and OS/390 applications, this member must contain the required link-edit INCLUDE statements that reference a ddname of OBJECT and a link-edit NAME statement having the REPLACE(R) option specified. Selected link-edit options are inserted into the PARM= field of the EXEC statement in the JCL stream that is submitted.

When linking VM/ESA applications, this member can contain the required link-edit INCLUDE and NAME statements for the LKED command or LOAD and GENMOD commands. Selected link-edit options are inserted into the GENMOD or LKED command. Use of this field can vary, depending on how the LIB/CCF administrator defined the link skeleton.

Other link-edit control statements are optional. LIB/CCF does the automatic load member backup, when requested, based on the load modules named by the link-edit control statements supplied.

Module NAME

Mutually exclusive with SYSIN MEMBER and JCL MEMBER. The MODULE NAME supplied replaces the \$CCFMOD variable in the default or override link-edit skeleton. A Machine Type Specification panel displays letting you change spool machine types. LIB/CCF determines which default skeleton to use based on the operating system supplied. You also see the Linkage Editor Options Selection panel. To choose an option, place an X next to it on the display. If you use the MODULE NAME field, the JCL skeleton used must contain all the necessary link-edit control statements for the operating system it is submitted to. Link-edit options are inserted as described earlier. LIB/CCF does the automatic load member backup, when requested, based on the module name supplied.

OVERRIDE SKELETON

Mutually exclusive with JCL MEMBER. Requires either a MODULE NAME or SYSIN MEMBER. Specifies a skeleton to use in place of the default link skeleton. The link skeleton member must contain a complete link-edit job skeleton for the environment. It must also include all necessary link-edit control statements if it is used with the MODULE NAME field. Processing proceeds as described for either the MODULE NAME or SYSIN MEMBER fields.

JCL MEMBER

Mutually exclusive with the SYSIN MEMBER, MODULE NAME, and OVERRIDE SKELETON. Specifies a complete link-edit JCL stream that resides on the production master file. LIB/CCF submits the member as is for execution. The automatic load member backup is not done unless a step is inserted into the JCL stream to accomplish it. The Machine Type Specification Panel displays letting you change the spool machine type information.

Online Link-Edit for z/OS and OS/390

Online link is available only in the z/OS and OS/390 LIB/CCF environment.

If online link-editing was specified as the installation option, each application to link must have an associated SYSIN member on the production master file that conforms to the requirements described following.

When you enter Option 6, you see a list of production master files and associated production load libraries. Enter the number of the master file that contains the associated linkage editor input for the application to relink.

The required contents of the LKED SYSIN MEMBER are as follows:

LKED SYSIN MEMBER

Specifies a production master file member that contains the required link-edit INCLUDE statements that reference a ddname of OBJECT and a link-edit NAME statement specifying the REPLACE(R) option. Other link-edit control statements are optional. LIB/CCF does the automatic load module backup, when requested, based on the load modules named by the link-edit NAME statements.

After entering a LKED SYSIN MEMBER, you see the Linkage Editor Options Selection panel. To choose an option, place an X next to it on the display. Selected options are inserted into the PARM= field of the EXEC statement in the JCL stream that is submitted.

Closing a Change Request (Option 7)

After the source changes are made and the application system is linked, you must select this option to close the change request and generate a report. If the LIB/CCF Administrator selected the appropriate option, three copies of the report are directed to you as the programmer, which you must distribute appropriately.

LIB/CCF-ISPF(VM/ESA) users can specify the destination of print requests and other pertinent information from the Report Print Specification panel. You can reach this panel through Option 0. It redisplayes for modification when reports are produced. You can route print requests either to spool or a user-defined VM/ESA file.

You must complete three panels to close a change request. They fully document what work was done, on which programs, and what testing was performed to verify that the work is complete and correct.

The first panel requires you to enter the change request number. It validates this number before continuing to the next panel in the sequence. Use the ANALYSIS section of this panel to summarize the changes made and the reasoning that led to them.

The second panel requires you to enter the names of the routines that were modified to support the requested enhancement or repair. They can be the names of any affected subroutines in a single member, the names of all members affected by the request, or a combination of both.

On the final panel, you must show that appropriate testing of the changes was completed. Enter the names of any test jobs and the dates they were added or modified, descriptions of new user inputs and outputs the application is to handle, and any changes to documentation (such as user guides or operations guides) that must be made.

Display Panels

If a control group manages certain functions at your site, the LIB/CCF display panels let you view the status of any requests you made for these control functions. The status of login and logout requests is shown in the Option 9 (MOVEMENT STATUS) display. The status of system link or DB2 for z/OS and OS/390 bind requests is shown in the Option 10 (LINK STATUS) display. If your site uses batch jobs to perform member transfer, compile, or link functions, you can check the status of those batch jobs that are pending on the Option 11 (JOB STATUS) display.

Displaying Movement Status (Option 9)

This option displays the status of login and logout requests.

```
FRI 04/06/01 ----- LOGIN/LOGOUT REQUEST STATUS ----- Row 1 to 2 of 2
                                                    13.35.10

COMMAND ==>                                SCROLL ==> PAGE
Available cmds: PROCESS/REJECT/UNLOCK/DELETE n/INFO, SELECT crid

      MODULE      CHAIN|MODULE MOVEMENT RECORD:
01) PGM03        00001 CR:W0000001 PROD DATE:04/06/01 11.20.4 PGMR: TREEL01

02) TEST1        00001 CR:W0000001 PROD DATE:04/06/01 11.21.0 PGMR: TREEL01
***** Bottom of data *****
```

Each entry of the Module Movement Record (MMR) contains the member name, the chain number, the related change request ID, the direction of the transfer (either PROD or TEST), the date and time of the request, and the programmer who made the request.

To see more information about the movement, such as names of the production file, the test file enter an I on the command line or on any of the entries. The following panel will be displayed with more information for all of the entries from the LOGIN/LOGOUT REQUEST STATUS panel. This is only a VIEW panel, commands cannot be entered from this panel.

```

FRI 04/06/01 ----- LOGIN/LOGOUT INFORMATION ----- Row 1 to 2 of 2
                                                    13.35.10
COMMAND ==>                                SCROLL ==> PAGE

      MODULE      CHAIN|MODULE MOVEMENT RECORD:
01) PGM03      00001 CR:W0000001 PROD DATE:04/06/01 11.20.4 PGMR:  TREE01
                PROD MASTER:  LIBR.TREEL01.PRODMASTER
                CURR MASTER:  LIBR.TREEL01.TESTMASTER
                VERS=04031459

02) TEST1      00001 CR:W0000001 PROD DATE:04/06/01 11.21.0 PGMR:  TREE01
                PROD MASTER:  LIBR.TREEL01.PRODMASTER
                CURR MASTER:  LIBR.TREEL01.TESTMASTER
                VERS=03071719

***** Bottom of data *****

```

The second line of each entry in the display above indicates the name of the production master file.

The third line indicates the name of the test master file.

The fourth line shows the CA Librarian version date. This field contains a date in one of the following formats:

mmddhhmm

Month, day, hour, minute if the member was updated. For VM/ESA or CA Vollie sites, the date format can be *ddmm*.

mmdd

If the member was never updated.

NEW

If the member does not yet exist on this production master file, but is to be newly created to satisfy this change request.

Following the version identifier is a user data area that a site user exit can fill in.

Panel Commands

The following commands are available to programmers from this panel.

Important! The PROCESS, REJECT, and UNLOCK commands, which also appear on this panel, are reserved for control group use.

DELETE *n*

The value of *n* is the number of the entry on the Login/Logout Status Display. This is valid only for rejected requests and removes them from the display.

FIND <string>

Positions the display to the first occurrence of the specified string. Do not use delimiters.

HELP

Invokes the LIB/CCF help facility for further information on the panel. For CA Vollie and CA Roscoe, PF1 also invokes the HELP facility. For ISPF, PF1 is the *default*. However, the user might have redefined the HELP key.

=*n* (jump)

The value of *n* is an option number. Jumps the user to another option.

NEXT

(CA Roscoe and CA Vollie) Positions the display to the next occurrence of the string that the FIND command previously specified.

RFIND

(ISPF only) Positions the display to the next occurrence of the string that the FIND command previously specified.

INFO

This command displays more information about each entry in the Login/Logout Request Status panel. You can enter an I on the command line or on any of the entries.

Displaying Link/Bind Status (Option 10)

This option displays the system link-edit and DB2 for z/OS and OS/390 bind requests. Site option determines whether you can view all of the requests or just your own.

```

REQUEST SYSTEM LINK/BIND RECORD:

01) W0000015 LKED SYSIN MEMBER: LKEDMEM OPTS: 001101 PGMR:ROW
      PROD MASTER: LIBR.PROD.MAST
CHAIN: 00005 LKED: mm/dd/yy 14:29:53 FILEID: 001

02) W0000036 BIND SYSIN MEMBER: BINDMEM *REJECTED* PGMR: HU
      PROD MASTER: LIBR.PROD.MAST
CHAIN: 00005 BIND: mm/dd/yy 15.30.56 FILEID: 001

```

The first line of the System Link/Bind Record (SLR) indicates the change request number associated with this link or bind request, the name of the member on the production master containing the link-edit or bind stream, the link-edit option flags (described following), and the name of the programmer who issued the request. If the control group rejected the request, the *REJECTED* request indicator displays in this line of the entry.

The second line indicates the production master file name.

The third line indicates the date and time of the request, as well as the chain number specified during logout processing.

The fourth line is a user data area that a site user exit can fill in.

Link-Edit Option Settings

The link-edit option settings are applicable only for link-edit requests. The options flags indicate what linkage editor options were specified for the system link request. A flag byte with the value of zero indicates that the option was not requested, while a flag byte with the value of 1 or higher indicates that the option was requested.

The option for each flag byte follows.

For z/OS and OS/390:

Setting	Option
1xxxxx LET	LET
x1xxxx	NCAL
xx1xxx	NORENT
xxx1xx	NOREUS

Setting	Option
xxxx1x	NOT REFR
xxxxx1	NOTEST

For VSE/ESA:

Setting	Option
1xxx	MAP
x1xx	AUTO
xx1x	CANCEL
xxx1	SMAP

For VM/ESA:

VM/ESA Link		VM/ESA Load		VM/ESA Genmod	
xxxxx	LET	1xxx	CLEAR	1xxx	MAP
1xxxx	NCAL	2xxx	NO CLEAR	2xxx	NOMAP
x1xxx	RENT	x1xx	AUTO	x1xx	STR
xx1xx	REUS	x2xx	NOAUTO	x2xx	NOSTR
xxx1x	REFR	xx1x	LIBE	xx1x	SYSTEM
xxxx1	unused	xx2x	NOLIBE	xxx1	OS
		xxx1	RLDSAVE	xxx2	DOS
				xxx3	ALL

ORIGIN, if specified, is the origin address for LOAD.

Panel Commands

The following commands are available to programmers from this panel.

Important! The PROCESS and REJECT commands, which also appear on the panel, are reserved for control group use.

DELETE *n*

The value of *n* is the number of the entry in the display. This command deletes a rejected link request. Only the programmer who made the request can use it.

FIND <string>

Positions the display to the first occurrence of the specified string. Do not use delimiters.

HELP

Invokes the LIB/CCF help facility for further information on this panel. For CA Vollie and CA Roscoe, PF1 also invokes the HELP facility. For ISPF, PF1 is the **default**. However, the user might have redefined the HELP key.

=n (jump)

The value of *n* is an option number. Jumps the user to another option.

NEXT

(CA Roscoe and CA Vollie.) Positions the display to the next occurrence of the string that the FIND command previously specified.

RFIND

(ISPF only.) Positions the display to the next occurrence of the string that the FIND command previously specified.

Displaying Job Status (Option 11)

This option displays a list of all jobs that LIB/CCF submitted and are not yet executed or did not execute successfully. Depending on the installation option, either the programmer or the control group is responsible for checking the job listings.

Pending Job Status Panel

The Pending Job Status panel can describe several types of batch jobs, including jobs to transfer members between test and production master files and jobs to create new executable production programs.

JOBNAME JOB SUBMISSION RECORD: LIA J03747 CR: W0000038 DATE: 11/28/96 13.56.00 PGMR: LI PROD MASTER: LIBR.PROD.MAST CHAIN: 00005 MODULE NAME: ACCTTXT TYPE: MOVE Y3560437 VERS=09071348

The first line of the JSR indicates the job name and number, the change request number, the date and time the job was submitted, and the programmer that owns the job.

The second line indicates the production master file accessed.

The third line indicates the chain number, the name of the accessed member, the job type (either MOVE, LKED, BIND, BHLL for batch login, or BHLO for batch logout), and the name of the member in the system master file that contains the JCL for the job. This member is created when the job is submitted and deleted when the job is successfully processed.

The fourth line of the entry contains the version date and a user data area. One or more site-provided user exits can supply the contents of the user data area.

Once a job listing is reviewed and any necessary action taken to complete processing, use the PROCESS command to check off the job.

Panel Commands

The following commands are available while viewing this panel:

EDIT *n*

(ISPF only.) The value of *n* indicates the number of the entry. This facilitates editing of the corresponding JCL (Yxxxxxxx) member (via ELIPS edit processing). See the *ELIPS Command Reference* for information on editing a member with ELIPS.

Note: If JSREDIT (CCF Option 12, System Profile Table) is set to NO (the default), only control group members may attempt to edit the member. Otherwise, edit is only restricted per security access rules. See the Rerunning a Failed Batch Job and Batch Job Fails sections in the “Exception Handling” chapter for further details. For more information about the System Profile Table, see the System Profile Table section in the “LIB/CCF Batch Utilities for Advantage CA Roscoe and ISPF(TSO)” chapter in the *LIB/CCF Implementation Guide*.

FIND <string>

Positions the display to the first occurrence of the specified string. Do not use delimiters.

HELP

Invokes the LIB/CCF help facility for further information on the panel. For CA Vollie and CA Roscoe, PF1 also invokes the HELP facility. For ISPF, PF1 is the *default*. However, the user might have redefined the HELP key.

=*n* (jump)

The value of *n* is an option number. Jumps the user to another option

NEXT

(CA Roscoe and CA Vollie.) Positions the display to the next occurrence of the string that the FIND command previously specified.

PROCESS *n*

The value of *n* indicates the number of the entry. It deletes the entry from the queue. Depending on site option, the PROCESS command can be reserved for the control group.

Note: The PROCESS command is not valid for jobs that the LIB/CCF scheduler interface scheduled. To delete the JSR entry for these jobs, you must use the RESUBMIT command and restart the job at the CHECKOFF step.

RFIND

(ISPF only.) Positions the display to the next occurrence of the string that the FIND command previously specified.

SSTATUS *n*

(For CA Roscoe and TSO, if a scheduler is defined to LIB/CCF.) Can be abbreviated to SS. The value of *n* is the number of the change request. If a change request number is specified, the Scheduler Status panel displays. If a change request number is omitted, the Scheduled Selection List panel displays. See the “Scheduling z/OS and OS/390 Batch Jobs in LIB/CCF” chapter for information about both of these panels.

RESUBMIT *n*

The value of *n* indicates the entry number.

- For VSE/ESA and VM/ESA jobs—Resubmits the job, deletes the entry, and creates a new entry for the job submitted.
- For z/OS and OS/390 jobs—Issuing the RESUBMIT command from Option 11 displays the Pending Job Restart panel:

Pending Job Restart Panel

Each JCL EXEC statement appears on the Pending Job Restart panel. The restart function adds the OS JCL RESTART parameter as the second line of the job card.

```

FRI mm/dd/yy ----- PENDING JOB RESTART ----- 02.34.42

COMMAND ==>                                SCROLL ==> PAGE
                Select a STEPNAME to restart, or END to CANCEL

*STEPNAME *----- J C L R E C O R D -----*
GETTEST  //GETTEST  EXEC  PGM=LIBRCOPY
PUTPROD  //PUTPROD  EXEC  PGM=AFOLIBR,PARM='NRJS',COND=(0,NE)
DELTEST  //DELTEST  EXEC  PGM=AFOLIBR,PARM='NRJS',COND=(0,NE)
STEP1    //STEP1    EXEC  PGM=AFOLIBR,PARM='NRJS',COND=(0,NE)
          //STEP2    EXEC  ASMHC,PARM='DECK',COND=(0,NE)
CHECKOFF //CHECKOFF EXEC  PGM=$CCFB100,COND=(4,LT)

```

Primary Commands

The primary commands available from this panel are:

END

Cancels the resubmit.

RESTART *-stepname/stepname.procstepname-*

Restarts the job from the specified job step or procedure step. See the *IBM z/OS and OS/390 JCL Guide* for a detailed explanation of the RESTART subparameters.

Line Command

The line command available from the STEPNAME selection list is:

S

Selects a STEPNAME to restart. You must start a step that executes a procedure with the RESTART command.

Version Failure Panel

When restarting a batch, group processing login/move job (indicated by a type of BHLI in the Job Submission Record), the version failure panel displays.

```

WED mm/dd/yy ----- PENDING JOB RESTART ----- 17.08.1
COMMAND ==>
-
Specify the version failure option for restarting the batch group processing
login/move:

Generate ARCHIVE CROSS-LEVEL REPORT ==>      or, (default)
OVERRIDE the FIRST version failure ==>      or,
OVERRIDE ALL version failures ==>          or,
SKIP the FIRST version failure ==>         or,
SKIP ALL version failures ==>              (and submit xref)
  
```

Panel Fields

The following fields appear on this panel:

Generate ARCHIVE CROSS-LEVEL REPORT

When the first version failure occurs, processing stops and a cross-level report is submitted for the module.

OVERRIDE the FIRST version failure

The first version failure error is overridden, but the second submits a cross-level report and processing stops.

OVERRIDE ALL version failures

Overrides ALL version failures.

SKIP the FIRST version failure

Skips the first module having a version failure error, but the second submits a cross-level report and processing stops.

SKIP ALL version failures

Skips ALL modules that have version failure errors; all others are processed.

Chapter 5: Control Group Functions

You can configure LIB/CCF to let the programmer perform a module logout and login and link edit an application. However, for reasons of security and auditability, your LIB/CCF administrator can restrict the programmer from some or all of the three above activities. Instead of executing the programmer requests directly, LIB/CCF passes the requests on to a control group for approval and processing.

As a member of the control group, you must review programmer requests for those activities under your control. You can reject a request if your group feels that the activity is unwarranted, unprepared, untimely, or for whatever reasons your group considers important. The programmer is notified of your rejection. Otherwise, you approve the request, in effect letting LIB/CCF continue with processing the request. As a member of the control group, you are generally concerned with Option 9 (MOVEMENT STATUS), Option 10 (LINK STATUS), and Option 11 (JOB STATUS). The following sections describe each option.

This section contains the following topics:

[Processing Login and Logout Requests \(Option 9\)](#) (see page 63)

[Processing System Link/Bind Requests \(Option 10\)](#) (see page 72)

[Processing Pending Jobs \(Option 11\)](#) (see page 74)

Processing Login and Logout Requests (Option 9)

If your LIB/CCF system is set up for the control group to process programmer's requests for logouts and logins, every time the programmer does a logout from Option 4 or a login from Option 5, LIB/CCF places the request in the module movement queue of Option 9. Each request takes the form of a Module Movement Record (MMR).

Option 9 lets you process a single member or multiple members associated with a change request. The latter is referred to as Group Processing. The following section describes Group Processing.

When the control group processes a request, LIB/CCF executes the movement either online or in batch, depending on site option. If quality assurance (QA) libraries are defined for your site, a member whose login request was processed goes to the next level QA library defined in the library promotion path. If all QA libraries are exhausted, the member goes to the production library.

If a batch job is submitted to perform the movement, LIB/CCF creates a Job Submission Record (JSR) in Option 11 (JOB STATUS). See the section titled Processing Pending Jobs in Chapter 5 for details on Job Submission Records.

When you reject a login request, the programmer is notified of the rejection by a rejected login request in Option 5 (LOGIN).

If a reject library is defined in the library promotion path, rejecting a login request moves the member to the defined reject library from where is presently resides. If no reject library is defined in the promotion path, the member stays where it is. By site option, you can be required to unlock the rejected member so that the programmer can access it. Use the Option 9 UNLOCK command to free the rejected member and make it available for the programmer to work on.

The following example displays a Module Movement Record.

```
FRI 04/06/01 ----- LOGIN/LOGOUT REQUEST STATUS ----- Row 1 to 2 of 2
                                     13.35.10
COMMAND ==>                                SCROLL ==> PAGE
Available cmds: PROCESS/REJECT/UNLOCK/DELETE n/INFO, SELECT crid

      MODULE      CHAIN|MODULE MOVEMENT RECORD:
01) PGM03        00001 CR:W0000001 PROD DATE:04/06/01 11.20.4 PGMR: TREEL01

02) TEST1        00001 CR:W0000001 PROD DATE:04/06/01 11.21.0 PGMR: TREEL01
***** Bottom of data *****
```

Each entry of the Module Movement Record (MMR) contains the member name, the chain-ID, the related change request ID, the direction of the transfer (either PROD or TEST), the date and time of the request, and the programmer who made the request.

To see more information about the movement, such as names of the production file, the test file enter an I on the command line or on any of the entries. The following panel will be displayed with more information for all of the entries from the LOGIN/LOGOUT REQUEST STATUS panel. This is only a VIEW panel, commands cannot be entered from this panel.

```
FRI 04/06/01 ----- LOGIN/LOGOUT INFORMATION ----- Row 1 to 2 of 2
                                     13.35.10
COMMAND ==>                                SCROLL ==> PAGE

      MODULE      CHAIN|MODULE MOVEMENT RECORD:
01) PGM03        00001 CR:W0000001 PROD DATE:04/06/01 11.20.4 PGMR: TREEL01
                  PROD MASTER: LIBR.TREEL01.PRODMAST
                  CURR MASTER: LIBR.TREEL01.TESTMAST
                  VERS=04031459

02) TEST1        00001 CR:W0000001 PROD DATE:04/06/01 11.21.0 PGMR: TREEL01
                  PROD MASTER: LIBR.TREEL01.PRODMAST
                  CURR MASTER: LIBR.TREEL01.TESTMAST
                  VERS=03071719

***** Bottom of data *****
```


The second line of each entry in the display above indicates the data set name of the production master file.

The third line indicates the data set name of the test or current master file.

The fourth line of the entry shows the CA Librarian version date. This field contains a date in one of the following formats:

mmddhhmm

(month, day, hour, minute) If the module was updated. For VM/ESA or CA Vollie sites, the date format can be *ddmm*.

mmdd

If the module was never updated.

NEW

If the module does not yet exist on this production master file, but is to be newly created to satisfy this change request.

Following the version identifier is a user data area that a site user exit can fill in.

Panel Commands

The following commands are available from this panel:

DELETE *n*

The value of *n* is the number of the entry to delete. The DELETE command is valid only for rejected requests and removes them from the display. The LIB/CCF administrator can restrict use of this command from the control group.

FIND <string>

Positions the display to the first occurrence of the specified string. Do not use delimiters.

NEXT

(CA Roscoe and CA Vollie only.) Positions the display to the next occurrence of the string that the FIND command previously specified.

PROCESS *n*

The value of *n* is the number of the entry to process. Initiates the movement process by copying the module to the target library. Depending on the installation option, the copy is performed online or by a batch job. A batch compile can also be performed. Processing the entry deletes it from the Option 9 display. Only control group members can issue the PROCESS command.

REJECT *n*

The value of *n* is the number of the entry to reject. Rejects the request and marks the MMR as rejected. If a reject library was defined for this library promotion path, the module is moved to that library. For a login request, a Module Tracking Record (MTR) with a rejected indicator (*REJECTED*) is returned to the programmer's Option 5 (LOGIN) queue. This entry notifies the programmer that the request was rejected.

Only control group members can issue the REJECT command. To remove rejected MMRs from Option 9, use the DELETE command.

RFIND

(ISPF only.) Positions the display to the next occurrence of the string that the FIND command previously specified.

SELECT<*x*> *cr*#

(Except CA Vollie.) The value of *x* is a single character indicating the type of SELECT. The value of *cr*# is the number of the change request to select. See the section titled Group Processing.

UNLOCK *n*

The value of *n* is the number of the entry to unlock. Frees a rejected member so that the programmer can access it.

INFO

This command displays more information about each entry in the Login/Logout Request Status panel. You can enter an I on the command line or on any of the entries.

Processing Multiple Members Using Group Processing (Except CA Vollie)

The facilities of Group Processing (available in LIB/CCF CA Roscoe, ISPF(TSO), and ISPF(VM/ESA)) lets the control group display the status of members associated with a change request and process those members in a group by entering one command. You must first select the members to process using the SELECT command from the login panel. The SELECT command is not available in LIB/CCF-CA Vollie.

The format of the SELECT command is as follows:

SELECT<*x*> *cr*#

where:

x

Designates the type of SELECT to do.

cr#

Indicates the change request number to select.

You can specify the SELECTx portion of the command in one of the following forms:

SELECT

Selects all members that the programmer currently logged in to the control group for the specified change request. The display does not include members that are currently in development or those that were logged in to production.

SELECTF

Selects all members that were logged out or logged in for the specified change request. This includes all members that were logged in to production and those that the control group and programmer have outstanding. Members that were logged out then deleted are not selected.

SELECTC

Selects all members that the control group MOVED to a higher level library, but have not compiled for the specified change request. Normally a member is moved and compiled when the PROCESS command is used. At the discretion of the CCF Administrator, an installation option can permit members to first be moved then compiled in a group with separate commands.

SELECTL

Selects all members for which a programmer requested logout but that the control group has not yet processed for the specified change request.

SELECTU

Selects all members that the control group REJECTEd for the specified change request. This includes only those members that the programmer rejected but did not process again. You can process all displayed members with the UNLOCK command.

You can specify the change request number as the full LIB/CCF change request number, as follows:

```
SELECT W0000019
```

You can abbreviate it to only the significant digits of the change request number, as in:

```
SELECT 19
```

You can also abbreviate the SELECTx command as follows:

```
S19 or SF 19
```

Group Processing displays a selection list containing three lines for each member. You can scroll the list using the PF keys. You can use the FIND command and RFIND (ISPF only) or NEXT (ROSCOE only) commands to position the display. All members appearing in the list are already selected. You do not need to select them individually before processing.

The first line of each entry includes the member name, the production master file that the member was logged out from, and the date and time to supply for the AllFusion CA-Librarian version check during login processing. The second line contains the master file where the member currently resides and date (mmddy) the member was logged out. The third line contains the member's current status and the logout time (hhmmss).

The current status is one of the following:

Under Development

The member is available for modification in a test library or a reject library. The programmer can process it.

In Development (Reject)

The control group rejected the member from a Q/A library. It is available for modification in a test or reject library. The programmer can process it.

LOGOUT not completed

A logout was requested of the member but the control group has not processed it yet.

Logged in by programmer

A login was requested of the member, but the control group has not processed it yet.

Login rejected by CNTL

The control group rejected the programmer's login request. The member is available for modification in the test library. The programmer can process it.

Batch job outstanding

A batch job that LIB/CCF submitted to process this member is currently outstanding. Processing of the batch job must be successfully completed before further processing can take place on this member. Refer to the section titled Rerunning a Failed Batch Job in Chapter 8 for more information.

In Q/A - NOT Compiled

The member was moved to a quality assurance library but the compile processing was not performed.

In Q/A - Compiled

The member was moved to a quality assurance library and any necessary compile processing is complete.

Production - NOT Compiled

The member was moved back into the production library, but no compile processing was performed.

Production - Compiled

The member was moved back into the production library, and any necessary compile processing is complete.

Not logged out under z/OS and OS/390 or VM/ESA

A LIB/CCF system other than the one used for processing the login, logged out the member. The member must be logged in on the system where the logout originated.

**** Deselected ****

This member was deselected and must be selected again before group processing can process it. You can select the member by placing an S to the left of the member name in the selection list or by issuing another SELECTx command from the command line.

**** Processed ****

The requested processing was done for this member.

Panel Commands

From the Group Processing panel, you can process selected members with one of the commands described following.

COMPILE [library|lib*[(member|mem*)]]

For all selected members with a status of In Production - NOT compiled or In Q/A NOT compiled, the appropriate compile processing is submitted. The LIB/CCF administrator can restrict this command.

Note: If a scheduler was defined to LIB/CCF, entering the PROCESS, LOGOUT, REJECT, MOVE, or COMPILE command displays the Job Scheduling Information panel. This panel provides an opportunity to schedule any of the functions a batch job is to perform. See the “Scheduling z/OS and OS/390 Batch Jobs in LIB/CCF” chapter for details.

DESELECT [library|lib*[(member|mem*)]]

Deselects a member before the PROCESS or SUBMIT command. Specify a member name prefix followed by an asterisk to deselect all members starting with that prefix. Specify just an asterisk to deselect all selected members.

LOGOUT [library|lib*[(member|mem*)]]

Logs out all selected members with a status of LOGOUT not completed to the test master file. Members are processed according to the options the LIB/CCF Administrator selected. Members with a status other than LOGOUT not completed are not logged out.

PROCESS [library|lib*[(member|mem*)]]

Moves all selected members with a status of Logged in by Programmer, In Q/A - compiled, or In Q/A NOT compiled to the production library or the next higher level Q/A library. The appropriate compile processing is also submitted. Members are processed according to the options the LIB/CCF Administrator selected. See the PROCESS command in the previous section. Members with any other status are not processed.

MOVE [library|lib*[(member|mem*)]]

Moves all selected members with a status of Logged in by Programmer, In Q/A - compiled, or In Q/A NOT compiled to the production library or the next higher level Q/A library. The appropriate compile processing is not submitted. The LIB/CCF Administrator can restrict this command.

REJECT [library|lib*[(member|mem*)]]

Rejects all selected members with a status of Logged in by Programmer, In Q/A - compiled or In Q/A NOT compiled according to the options the LIB/CCF Administrator selected. See the REJECT command in the previous section. Members with any other status are not rejected.

SUBMIT [cmd [library|lib*[(member|mem*)]]]

Submits a batch job. The job performs the processing the *cmd* parameter specifies. If the library and member parameters are specified, you must also specify *cmd* parameter. If all the parameters are omitted, all eligible members are processed. LIB/CCF tracks the job by adding a Job Submission Record (JSR) to the Option 11 queue.

UNLOCK [library|lib*[(member|mem*)]]

Unlocks all selected members with a status of Login rejected by CNTL or In Development-Rejected in the library where they currently reside. Members that were not rejected are not unlocked. See the UNLOCK command in the previous section.

The parameters for all commands are:

cmd

Specify COMPILE, LOGOUT, MOVE, PROCESS, REJECT, or UNLOCK to submit a job to perform the specified command.

library

Specify the current library name, a current library name prefix followed by an asterisk (for example, TESTMA*), or just an asterisk.

member

Specify the member name, a member name prefix followed by an asterisk (for example, CBL*), or just an asterisk.

While processing all members for a change request together is desirable in most cases, you might frequently want to exclude certain members from the group, leaving them to process at a later time. To prevent a member from processing, enter a D on the line selection field to the left of the member name. DESELECTED appears as the current status. When you enter a command, deselected members are not processed. If you decide that you want to login a member you already deselected, you can select it again by entering an S in the line selection field.

The SUBMIT function submits a job that can spawn additional jobs, thereby freeing the keyboard for other functions. For non-SUBMIT function processing, as each member is processed, an informational message displays. If processing submits a job, the message includes the job name and number. The keyboard remains locked until all members are processed.

When LIB/CCF processing submits z/OS and OS/390 batch jobs and you specify the NOTIFY= operand on the JOB card, the message generated when the job completes can interrupt the display, halting processing until the user intervenes. Since group processing is designed to process a large volume of members at one time, it is suggested that you not use the NOTIFY= operand on the JOB card. However, if the jobs that are submitted do not execute immediately, the NOTIFY= operand will probably not interrupt the group processing display.

Once a command is issued, you must enter another SELECTx command before you can process any other members. Alternatively, the REFRESH command processes as the last SELECTx command entered.

Processing System Link/Bind Requests (Option 10)

Use Option 10 to displays the System Link/Bind Requests from programmers and to process or reject these requests. As a site option, only those requests that belong to the programmer who asks for the display can be shown. All requests are shown to the control group. Both link-edit requests and DB2 for z/OS and OS/390 bind requests display from Option 10.

REQUEST SYSTEM LINK/BIND RECORD:

```
01) W0000015 LKED SYSIN MEMBER: LKEDMEM OPTS: 001101 PGMR:ROW
      PROD MASTER:  LIBR.PROD.MAST
      CHAIN: 00005 LKED: mm/dd/yy 14:29:53 FILEID: 001

02) W0000036 BIND SYSIN MEMBER: BINDMEM *REJECTED* PGMR:HU
      PROD MASTER:  LIBR.PROD.MAST
      CHAIN: 00005 BIND: mm/dd/yy 15.30.56 FILEID: 001
```


The first line of the System Link/Bind Record (SLR) indicates the change request number associated with this link or bind request, the name of the member on the production master containing the link-edit or bind stream, the link-edit option flags (described following), and the name of the programmer who issued the request. If the control group rejected the request, the *REJECTED* request indicator displays in this line of the entry.

The second line indicates the production master file name.

The third line indicates the date and time of the request, as well as the chain number specified during logout processing.

The fourth line is a user data area that a site user exit can fill in.

More information:

[Link-Edit Option Settings](#) (see page 55)

Panel Commands

The following commands are available to programmers from this panel.

PROCESS *n*

The value of *n* is the number of the entry to process. This command is available only to the control group. It link edits or binds the application, either online or by a batch job submission, depending on the installation option.

Online link is available only in the z/OS and OS/390 environment.

Note: If a scheduler was defined to LIB/CCF, entering the PROCESS command displays the Job Scheduling Information panel. This panel lets you schedule the job to submit. See the “Scheduling z/OS and OS/390 Batch Jobs in LIB/CCF” chapter for details.

REJECT *n*

The value of *n* is the number of the entry to reject. This command is available only to the control group. It marks the entry as rejected to inform the programmer.

DELETE *n*

The value of *n* is the number of the entry in the display. This command deletes a rejected link request. Only the programmer who made the request can use it.

FIND <string>

Positions the display to the first occurrence of the specified string. Do not use delimiters.

NEXT

(CA Roscoe and CA Vollie.) Positions the display to the next occurrence of the string that the FIND command previously specified.

RFIND

(ISPF only.) Positions the display to the next occurrence of the string that the FIND command previously specified.

HELP

Invokes the LIB/CCF help facility for further information on this panel. For CA Vollie and CA Roscoe, PF1 also invokes the HELP facility. For ISPF, PF1 is the *default*. The user might have redefined the HELP key.

=n (jump)

The value of *n* is an option number. Jumps the user to another option.

Processing Pending Jobs (Option 11)

Use Option 11 to list the Job Submission Records (JSRs) for all batch jobs that LIB/CCF submitted (except print jobs) and were not executed or did not execute successfully. Depending on the installation option, either the programmer or the control group is responsible for checking the job output and processing the JSR.

Pending Job Status Panel

The Pending Job Status panel can describe several types of batch jobs, including jobs to transfer members between test and production master files and jobs to create new executable production programs.

```
JOBNAME JOB SUBMISSION RECORD:
LIA      J03747 CR: W0000038 DATE: 11/28/96 13.56.00 PGMR: LI
          PROD MASTER: LIBR.PROD.MAST
CHAIN: 00005 MODULE NAME: ACCTTXT  TYPE:  MOVE Y3560437
          VERS=09071348
```

The first line of the JSR indicates the job name and number, the change request number, the date and time the job was submitted, and the programmer that owns the job.

The second line indicates the production master file accessed.

The third line indicates the chain number, the name of the accessed member, the job type (either MOVE, LKED, BIND, BHLL for batch login, or BHLO for batch logout), and the name of the member in the system master file that contains the JCL for the job. This member is created when the job is submitted and deleted when the job is successfully processed.

The fourth line of the entry contains the version date and a user data area. One or more site-provided user exits can supply the contents of the user data area.

Once a job listing is reviewed and any necessary action taken to complete processing, use the PROCESS command to check off the job.

Panel Commands

The following commands are available while viewing this panel:

EDIT *n*

(ISPF only.) The value of *n* indicates the number of the entry. This facilitates editing of the corresponding JCL (Yxxxxxxx) member (via ELIPS edit processing). See the *ELIPS Command Reference* for information on editing a member with ELIPS.

Note: If JSREDIT (CCF Option 12, System Profile Table) is set to NO (the default), only control group members may attempt to edit the member. Otherwise, edit is only restricted per security access rules. See the Rerunning a Failed Batch Job and Batch Job Fails sections in the “Exception Handling” chapter for further details. For more information about the System Profile Table, see the System Profile Table section in the “LIB/CCF Batch Utilities for Advantage CA Roscoe and ISPF(TSO)” chapter in the *LIB/CCF Implementation Guide*.

FIND <string>

Positions the display to the first occurrence of the specified string. Do not use delimiters.

HELP

Invokes the LIB/CCF help facility for further information on the panel. For CA Vollie and CA Roscoe, PF1 also invokes the HELP facility. For ISPF, PF1 is the *default*. However, the user might have redefined the HELP key.

=*n* (jump)

The value of *n* is an option number. Jumps the user to another option

NEXT

(CA Roscoe and CA Vollie.) Positions the display to the next occurrence of the string that the FIND command previously specified.

PROCESS *n*

The value of *n* indicates the number of the entry. It deletes the entry from the queue. Depending on site option, the PROCESS command can be reserved for the control group.

Note: The PROCESS command is not valid for jobs that the LIB/CCF scheduler interface scheduled. To delete the JSR entry for these jobs, you must use the RESUBMIT command and restart the job at the CHECKOFF step.

RFIND

(ISPF only.) Positions the display to the next occurrence of the string that the FIND command previously specified.

SSTATUS *n*

(For CA Roscoe and TSO, if a scheduler is defined to LIB/CCF.) Can be abbreviated to SS. The value of *n* is the number of the change request. If a change request number is specified, the Scheduler Status panel displays. If a change request number is omitted, the Scheduled Selection List panel displays. See the “Scheduling z/OS and OS/390 Batch Jobs in LIB/CCF” chapter for information about both of these panels.

RESUBMIT *n*

The value of *n* indicates the entry number.

- For VSE/ESA and VM/ESA jobs—Resubmits the job, deletes the entry, and creates a new entry for the job submitted.
- For z/OS and OS/390 jobs—Issuing the RESUBMIT command from Option 11 displays the Pending Job Restart panel:

Pending Job Restart Panel

Each JCL EXEC statement appears on the Pending Job Restart panel. The restart function adds the OS JCL RESTART parameter as the second line of the job card.

```

FRI mm/dd/yy ----- PENDING JOB RESTART ----- 02.34.42
COMMAND ==>                                SCROLL ==> PAGE
      Select a STEPNAME to restart, or END to CANCEL

*STEPNAME *----- J C L R E C O R D -----*
GETTEST  //GETTEST  EXEC  PGM=LIBRCOPY
PUTPROD  //PUTPROD  EXEC  PGM=AFOLIBR,PARM='NRJS',COND=(0,NE)
DELTEST  //DELTEST  EXEC  PGM=AFOLIBR,PARM='NRJS',COND=(0,NE)
STEP1    //STEP1    EXEC  PGM=AFOLIBR,PARM='NRJS',COND=(0,NE)
          //STEP2    EXEC  ASMHCB,PARM='DECK',COND=(0,NE)
CHECKOFF //CHECKOFF EXEC  PGM=$CCFB100,COND=(4,LT)

```

Primary Commands

The primary commands available from this panel are:

END

Cancels the resubmit.

RESTART -stepname/stepname.procstepname-

Restarts the job from the specified job step or procedure step. See the *IBM z/OS and OS/390 JCL Guide* for a detailed explanation of the RESTART subparameters.

Line Command

The line command available from the STEPNAME selection list is:

S

Selects a STEPNAME to restart. You must start a step that executes a procedure with the RESTART command.

Chapter 6: Scheduling z/OS and OS/390 Batch Jobs in LIB/CCF

You can configure LIB/CCF to take advantage of either CA 7 or CA Scheduler scheduling an application for promotion to the production environment at a specified time. Not only does this assist in coordinating the movement of large application systems into production, it lets you pre-stage and schedule jobs for off peak hours. An additional feature lets you establish predecessor relationships for jobs being scheduled. Based on these relationships, CA 7 or CA Scheduler monitors all scheduled jobs, assuring that all predecessor jobs successfully executed before submitting a job. The programmer or control group can schedule jobs, depending on how LIB/CCF is configured.

Note: Because scheduled jobs must have unique job names, LIB/CCF generates a job name of *Ynnnnnnn*, where *nnnnnnn* is a random number. This job name overrides the job name specified on the job card in Option 0.

This section contains the following topics:

[Which Options Support Scheduling?](#) (see page 79)

[Job Scheduling Information Panel](#) (see page 80)

[Job Order Specification Panel](#) (see page 81)

[Scheduled CR Selection List Panel](#) (see page 84)

[Scheduler Status Panel](#) (see page 85)

Which Options Support Scheduling?

If a scheduler was defined to LIB/CCF, you can invoke job scheduling from the following LIB/CCF functions (provided the function is performed by a batch job the programmer submitted).

- From Option 5, the programmer can schedule logins from the Group Processing selection list. Once the PROCESS command is entered from the list, the Job Scheduling Information panel displays.
- From Option 6, the programmer can schedule link-edits or DB2 for z/OS and OS/390 binds. Once the programmer provides the required link-edit or bind information, the Job Scheduling Information panel displays.
- From Option 11, the programmer can view the status of jobs already scheduled from LIB/CCF. Once the SSTATUS command is entered from Option 11, the Scheduler Status panel displays. Additionally, if CA 7 is specified as the scheduler, you can redemand jobs from Option 11.

Job Scheduling Information Panel

The Job Scheduling Information panel is available to the programmer from Option 5 (with the Group Processing selection list PROCESS command) and from Option 6 (once the link-edit or DB2 for z/OS and OS/390 bind information is filled in).

```
TUE mm/dd/yy ----- JOB SCHEDULING INFORMATION - CR: W0000001 ----- hh.mm.ss
COMMAND ==>

SCHEDULE DATE ==> mm / dd / yy      SCHEDULE TIME ==> hh : ss

MODIFY JOB ORDER ==>                (Y OR N)

SELECT PREDECESSOR ==>              (Y OR N; DEFAULT IS THE LAST SCHEDULED JOB)

Enter END if scheduling is not desired. Otherwise, enter a date and
time for the jobs to be scheduled.
```

Panel Fields

The panel fields are:

SCHEDULE DATE

The date of execution in *mm/dd/yy* format. Defaults to the current date. If you allow the date and time to default, the job is scheduled to run immediately.

CA Scheduler does not allow you to schedule jobs more than 99 days in advance.

SCHEDULE TIME

The time of execution in *hh/mm* (a 24 hour clock) format. Defaults to the current time. If you allow the date and time to default, the job is scheduled to run immediately.

Note: Some sites find it necessary to schedule jobs slightly ahead by a few minutes to let LIB/CCF finalize control records before the scheduled job executes.

MODIFY JOB ORDER

This field is not applicable to Options 6 and 10 and does not display for those options.

Indicates whether you want to change the order members appear in the Group Processing selection list. Enter Y for yes, N for no. Specifying Y displays the Job Order Specification panel. See the next section for details on this panel.

SELECT PREDECESSOR

If you specify NO, the last scheduled job for this change request becomes the predecessor job. No predecessor job is defined if 1) there are no scheduled jobs for this change request, or 2) for CA Scheduler, there are no jobs for which scheduling was requested in the same day.

If you specify YES and there are scheduled jobs for this change request, the Scheduler Status panel displays. If YES is specified and there are no scheduled jobs for this change request, no predecessor job is defined and the Scheduler Status panel is not displayed. See the section on the Scheduler Status panel for details.

Panel Commands

The commands available from this panel are:

END

Exits the panel. No jobs are scheduled.

CANCEL

Same as END.

Job Order Specification Panel

Specifying Y for Modify Job Order on the Job Scheduling Information panel displays the Job Order Specification panel. This panel has two alternate panels that provide additional information. All three panels are described following:

Panel 1

```

TUE mm/dd/yy ----- JOB ORDER SPECIFICATION - CR: W0000001 ----- ROW 1 OF 3
                                     hh.mm.ss
COMMAND ==>
CCF092Z: Use MOVE line commands to modify the job order - END to continue
                                     (use cmd "A" for alternate panels)
      MODULE (PRTY)    LANGUAGE    PRODUCTION MASTER
INCMOD  ( 000 )      ASM          LIBR.PROD.MAST
TESTCOPY ( 000 )      ASM          LIBR.PROD.MAST
TESTLINK ( 000 )      ASM          LIBR.PROD.MAST
***** BOTTOM OF DATA *****

```

The panel fields are:

Module

The member name this job is to process.

PRTY

The priority associated with the member's LANGUAGE.

LANGUAGE

The member's LANGUAGE. Determines the JCL skeleton used to compile the member.

PRODUCTION MASTER

The production master file for this member.

Panel 2

```
TUE mm/dd/yy ----- JOB ORDER SPECIFICATION - CR: W0000001 ----- ROW 1 OF 3
                                     hh.mm.ss
COMMAND ==>

                                (use cmd "A" for alternate panels)
MODULE      CURRENT STATUS      LOGOUT DATE/TIME      VERSION
INCMOD      Production - Compiled 10/13/96 14.11.05      06011345
TESTCOPY    Production - Compiled 10/13/96 14.11.26      06091155
TESTLINK    Production - Compiled 10/14/96 10.24.40      06091315
***** BOTTOM OF DATA *****
```

The fields on this panel not previously documented are:

CURRENT STATUS

The member's status, as displayed in the Group Processing selection list. For a description of each status, see the table in the section titled Logging in Multiple Members Using Group Processing (Except CA Vollie) in Chapter 4.

LOGOUT DATE/TIME

The date and time that the member was logged out.

VERSION

The date (or date and time) used for version checking when the member is logged into production.

Panel 3

```

TUE mm/dd/yy ----- JOB ORDER SPECIFICATION - CR: W0000001 ----- ROW 1 OF 3
                                     hh.mm.ss
COMMAND ==>

                (use cmd "A" for alternate panels)
      MODULE  CURRENT STATUS          CURRENT MASTER
INCMOD  Production - Compiled
TESTCOPY Production - Compiled
VARMOD  Production - Compiled
***** BOTTOM OF DATA *****

```

The only panel field not previously documented is:

CURRENT MASTER

The data set name of the master file where the member currently resides. This field is blank if the member is in the production master file.

Panel Commands

The primary commands available from any of the three Job Order Specification panels are:

END

Terminates the panel display after any changes are made. Jobs are scheduled to run on the date and time entered on the previous panel.

ALTERNATE

Displays the next alternate panel or returns to the primary panel. (Can be abbreviated to A.)

Line Commands

The line commands available from the selection list are:

M[n]

Lines to move, where *n* is the number of lines to move. If *n* is omitted, only one line is moved.

MM

Block of lines to move. Enter MM on the first and last line of the block to move.

A

Use with any move command to move lines after this line.

B

Use with any move command to move lines before this line.

Scheduled CR Selection List Panel

Specifying the SSTATUS command from Option 11 displays the Scheduled Selection List panel:

TUE mm/dd/yy -----		SCHEDULED CR SELECTION LIST -----		ROW 1 OF 1	
				hh.mm.ss	
COMMAND ==>					
CR ID	NUMBER OF JOBS	NUMBER PENDING	REDEMANDED	USERID	
W0000001	00003	003	N/A	N/A	
***** BOTTOM OF DATA *****					

Panel Commands

The primary commands available from this panel are:

END

Exits the panel with no action taken.

REDEMAND

(Only if CA 7 is the scheduler defined to LIB/CCF.) Demands (reschedules) all pending jobs for all change requests.

Line Commands

The line commands available from the selection list are:

S

Displays the scheduler status panel for the selected change request.

R

(Only if CA 7 is the scheduler defined to LIB/CCF.) Redemands (reschedules) all pending jobs for this change request.

Scheduler Status Panel

You can display the Scheduler Status panel from any of three points in LIB/CCF processing:

- Specify **Y** for Select Predecessor on the Scheduler Information panel.
- Enter an **S** (for select) from the Scheduled Selection panel selection list.
- Enter **SSTATUS** with a change request number from Option 11.

The Scheduler Status panel has two alternate panels that provide additional information. All three panels are described following.

Panel 1

TUE mm/dd/yy ----- SCHEDULER STATUS - CR: W0000001 -----							
COMMAND ==>							
(use cmd "A" for alternate panels)							
JOBNAME	NUMBER	SCHEDULED	PRED	TYPE	MODULE	LANGUAGE	STATUS
Y3560444	JOB03747	11/28/02 13:56	*NONE*	MOVE	INCMOD	ASM	PENDING
Y2562927	JOB03749	11/28/02 13:56	*NONE*	MOVE	TESTCOPY	ASM	PENDING
Y1569473	JOB03752	11/28/96 13:56	*NONE*	MOVE	TESTLINK	ASM	PENDING

The panel fields are:

JOBNAME

The LIB/CCF generated job name for the scheduled job.

NUMBER

For CA 7, the job number is JOB00000 if the job did not yet run. Once the job runs, this field displays the actual job number of the job. For CA Scheduler, the actual job number displays.

SCHEDULED

The date and time that the job is to run.

PRED

The predecessor job name. If no predecessor exists, *NONE" displays.

TYPE

Indicates LKED for link-edit or MOVE for movement into another master file.

Module

If TYPE is LKED, the module name displayed is the SYSIN member or the complete JCL stream to use for the link-edit. If TYPE is MOVE, the member name to process displays.

STATUS

PENDING indicates that the job did not yet run or that it ran but did not finish successfully. COMPLETE indicates that the job ran successfully and that the Job Submission Record (JSR) was removed.

LANGUAGE

For a login that performs a compile, the language to use to determine the compile JCL skeleton displays. For a login that performs only a move, *NOP* displays. For a link-edit, *N/A* displays.

REQUESTED

The date and time that the schedule request was made.

Panel 2

```
TUE mm/dd/yy ----- SCHEDULER STATUS - CR: W0000001 ----- ROW 1 OF 1
                                     hh.mm.ss
COMMAND ==>
                (use cms "A" for alternate panels)
  JOBNAME  NUMBER  PRED  REQUESTED  MODULE  COMPLETED  STATUS
Y0433350  JOB00000  *NONE* 11/28/02 10:43 TESTLINK  N/A         PENDING
*****
***** BOTTOM OF DATA *****
```

The fields on this panel that were not previously documented are:

REQUESTED

The date and time that the schedule request was made.

COMPLETED

The date and time that the job successfully ran. If the job is in pending status (meaning that it did not yet successfully execute), the field indicates N/A.

Panel 3

TUE mm/dd/yy ----- SCHEDULER STATUS - CR: W0000001 -----					ROW 1 OF 1
					hh.mm.ss
COMMAND ==>					
					(use cmd "A" for alternate panels)
JOBNAME	NUMBER	REQUESTED	REDEMANDED	COMPLETED	STATUS
Y0433350	JOB000000	11/27/02 10:43	11/28/02 15:55	N/A	PENDING
***** BOTTOM OF DATA *****					

Panel Commands

The primary commands available from any of the Scheduler Status panels are:

END

Exits the panel, indicating that no predecessor job is defined for the first scheduled job. For Option 11, END terminates the panel display.

ALTERNATE

Displays the next alternate panel or return to the primary panel. (Can be abbreviated to A.)

REDEMAND

(Only if CA 7 is the scheduler defined to LIB/CCF.) Available only from Option 11. Can be abbreviated to R. Redemands (reschedules) all pending jobs for all change requests.

Line Commands

The line commands available from the selection list are:

S

(Not available from Option 11.) Selects a predecessor. You can specify only one predecessor.

R

(Only if CA 7 is the scheduler defined to LIB/CCF.) Only available from Option 11. Redemands (reschedules) the job.

Chapter 7: DB2 for z/OS and OS/390 Support in LIB/CCF

You can configure LIB/CCF to provide change control functions specific to the DB2 for z/OS and OS/390 environment. DB2 for z/OS and OS/390 support is available in LIB/CCF CA Roscoe, LIB/CCF TSO, and LIB/CCF VM/ESA (for batch jobs submitted to an z/OS and OS/390 machine). The pre-compile process occurs under the control of LIB/CCF as part of Option 5 (LOGIN). The bind process is an extension of Option 6 (LINK) processing. Batch and online bind are available from LIB/CCF CA Roscoe and LIB/CCF TSO. LIB/CCF VM/ESA does not support an online bind, but does support batch bind.

Optionally, reports are available to describe application plans or packages. These reports include the names of the libraries where the source members and related DBRMs are located, the number of the change request that resulted in the current production version, and the ID of the person who created the plan or package. See Chapter 9 for details on the DB2 for z/OS and OS/390 reports.

LIB/CCF manages the update cycle for DB2 for z/OS and OS/390 source programs and the associated bind required to create an application plan or package. You can also store bind parameters in a production master file that LIB/CCF manages. Bind parameters are keywords and values that specify options for the BIND command, such as DBRM names, DBRM library names, and package list entries. Members containing these parameters are referred to as the bind options members.

From Option 0 (CCF PARMS), specify the DB2 for z/OS and OS/390 subsystem name in the job card specification panel (in the field DB2 for z/OS and OS/390 SUBSYSTEM). The default name is DSN.

- From Option 5 (LOGIN), the BIND command lets the programmer:
- Modify an existing, logged out bind options member, or
- Create a new bind options member through the DB2 for z/OS and OS/390 PLAN UPDATE or DB2 for z/OS and OS/390 PACKAGE UPDATE panel.

For details on the BIND command, see the following section.

From Option 6 (LINK), the programmer can choose between either linking or binding an application. For details on bind processing, see the section titled Initiating a Production Bind Request later in this chapter.

This section contains the following topics:

[Creating and Updating Bind Options Members](#) (see page 90)
[Initiating a Production Bind Request](#) (see page 96)

Creating and Updating Bind Options Members

To create a bind options member, you must first choose a name for the member and then perform a logout of that member (LIB/CCF assumes that you are adding the member). Once the logout is performed, you must issue the BIND command from Option 5 (LOGIN), which displays the primary DB2 PLAN UPDATE panel.

LIB/CCF provides default values for the bind options. After making your selections, issue the END command to add this member (containing the bind options information) to the test master file for subsequent login processing. For DB2 release 2.3 or later, a new member selection panel displays to let you specify whether to create a BIND PLAN or BIND PACKAGE member.

As an alternative to using the bind command, you can create your own bind options member on the test master file, using the editor of your choice. However, using the BIND command ensures that the bind options are formatted correctly.

To modify an existing bind options member, you must perform a logout. Once the member is in the test master file, you have two options for updating it:

- You can use the BIND command from Option 5 (LOGIN), or
- You can update the member using the editor that you normally use to update members on the test master file.

Regardless of which method you use, you must log in the member after the required modifications are made.

Additionally, the BIND command processes existing bind JCL members by removing the JCL to create a member that contains only bind options (since LIB/CCF provides the required JCL at bind time).

You can issue the BIND command for a member as many times as necessary.

For releases of DB2 previous to 2.3, entering the BIND command from Option 5 (LOGIN) displays the primary DB2 PLAN UPDATE panel. An alternate DB2 PLAN UPDATE panel is available to provide an additional field for DBRM libraries.

For DB2 release 2.3 or later, for a member that exists on the test master file, the first BIND PLAN or BIND PACKAGE panel displays, depending on the data in the member. Alternate panels are available for specifying other parameters.

```

TUE mm/dd/yy ----- DB2 PLAN UPDATE ----- hh.mm.ss
COMMAND ==>                                     SCROLL ==> PAGE

      (Use command "A" for DBRM LIBRARY panel)
      MEMBER NAME:   DB2OPTS   (Librarian plan member name)
      PLAN NAME ==> DB2OPTS   (Required to create a plan)
      ACTION ON PLAN ==> ADD   (REPLACE or ADD)
RETAIN EXECUTION AUTHORITY ==> (YES to retain user list)
      ISOLATION LEVEL ==> RR   (RR or CS)
      PLAN VALIDATION TIME ==> RUN (RUN or BIND)
      RESOURCE ACQUISITION TIME ==> USE (USE or ALLOCATE)
      RESOURCE RELEASE TIME ==> COMMIT (COMMIT or DEALLOCATE)
      EXPLAIN PATH SELECTION ==> NO (NO or YES)
      MESSAGE FLAG ==> I      (Message level flag I W E C)
      OWNER OF PLAN ==>      (Leave blank for your CCF ID)

      DBRM      DBRM      DBRM      DBRM      DBRM      DBRM
CBLACCT      CBLALERT      CBLSORT      CBLCASE      .....

```

```

TUE mm/dd/yy ----- DB2 PLAN UPDATE ----- hh.mm.ss
COMMAND ==>                                     SCROLL ==> PAGE

      (Use command "A" for alternate panels)
      MEMBER NAME:   DB2OPTS   (Librarian plan member name)
      PLAN NAME ==> DB2OPTS   (Required to create a plan)
      ACTION ON PLAN ==> ADD   (REPLACE or ADD)
RETAIN EXECUTION AUTHORITY ==> (YES to retain user list)
      ISOLATION LEVEL ==> RR   (RR or CS)
      PLAN VALIDATION TIME ==> RUN (RUN or BIND)
      RESOURCE ACQUISITION TIME ==> USE (USE or ALLOCATE)
      RESOURCE RELEASE TIME ==> COMMIT (COMMIT or DEALLOCATE)
      EXPLAIN PATH SELECTION ==> NO (NO or YES)
      MESSAGE FLAG ==> I      (Message level flag I W E C)
      OWNER OF PLAN ==>      (Leave blank for your CCF ID)

      DBRM      DBRM      DBRM      DBRM      DBRM      DBRM
CBLACCT      CBLALERT      CBLSORT      CBLCASE      .....

```

Panel Fields

The fields on this panel (with the exception of MEMBER NAME) are DB2 for z/OS and OS/390 bind options. The field descriptions listed following came from the IBM DB2 for z/OS and OS/390 documentation. If you need more information, consult that documentation. The panel fields are:

MEMBER NAME

One- to eight-character CA Librarian bind options member name. This name is obtained from the Module Tracking Record when the member is logged out and is not modifiable.

PLAN NAME

One- to eight-character application plan name. It defaults to the MEMBER NAME; however, you can modify it.

ACTION ON PLAN

Defaults to REPLACE. Indicates whether the application plan can be added or replaced. You can also specify ADD.

RETAIN EXECUTION AUTHORITY

Defaults to NO. Applies only when you are replacing a plan. It indicates whether those users with the authority to bind or execute the existing plan keep that authority over the changed plan.

ISOLATION LEVEL

Defaults to RR. Describes the isolation of this application from others. Specify RR for repeatable read or CS for cursor stability.

PLAN VALIDATION TIME

Defaults to RUN. Indicates when full validity checking is performed. RUN specifies that validity checking is deferred to execution time. BIND specifies that validity checking is performed at the time the application plan is created.

RESOURCE ACQUISITION TIME

Defaults to USE. Indicates when resources are acquired. USE opens table spaces and acquires locks only when the application program bound to the plan first uses them. ALLOCATE opens all table spaces and acquires all table space locks when the plan is allocated.

RESOURCE RELEASE TIME

Defaults to COMMIT. Indicates when resources are released. COMMIT releases resources at each COMMIT point. DEALLOCATE releases resources only when the application plan terminates.

EXPLAIN PATH SELECTION

Defaults to NO. Lets you query DB2 for z/OS and OS/390 about the decisions it is making in establishing the access path it uses to access your data. NO provides no EXPLAIN information. YES provides EXPLAIN information.

MESSAGE FLAG

Defaults to I. Suppresses diagnostic messages below the specified severity level (I=Informational, W=Warning, E=Error and C=Completion).

OWNER OF PLAN

Applicable only with DB2 Release 2.1 or later. Designates the authorization ID of the owner of the plan. Leave this field blank if you are using a release of DB2 previous to 2.1.

DBRM

(Data Base Resource Module.) You must specify at least one DBRM to bind the application.

DBRM LIBRARY

Optional. Displayed only from the alternate DB2 for z/OS and OS/390 PLAN UPDATE panel. Lists the PDSs that contain the members listed in the DBRM fields. Libraries are searched in the order you list them. If the libraries do not contain a member named in the DBRM member list and a JCL statement exists for DBRMLIB DD, then libraries described by the DBRMLIB DD statement are searched.

Alternate Panels

The alternate panels for DB2 release 2.3 and later contain the following fields:

ENABLE/DISABLE CONNECTION TYPES

Specify whether any connection types are enabled or disabled. If no specification is made, the default enables ALL connection types for the plan or package.

CONNECTION TYPES

All types specified are either enabled or disabled, depending on the value chosen for ENABLE/DISABLE. You cannot enable some and disable others.

CONNECTION NAMES

Specify connection names for connection types as either enabled or disabled. You cannot specify names if the corresponding connection type is not selected.

DEFER PREPARE

Indicates whether the PREPARE for a remote object is deferred.

QUALIFIER

Indicates the implicit qualifier for unqualified table names, and so on, contained in the plan. Default is owner ID.

CACHESIZE

Specifies the size (in bytes) of the authorization cache. The default is 1024. No cache is used if the value is 0.

CURRENT SERVER

Specifies a connection to a location before a plan runs.

PKLIST

Lists the PKLIST entries for the plan.

PACKAGE VALIDATION TIME

Indicates when full validity checking is performed.

DATA CURRENCY

Indicates whether local and remote data must match.

ACTION ON PACKAGE

Indicates whether the package is added or replaced.

VERSION TO REPLACE

Indicates the specific version of the package to replace if you specify replace.

OWNER OF PACKAGE

Designates the authorization ID of the owner of the package.

SQLERROR

Indicates whether to create a package if SQL errors occur.

PACKAGE SOURCE

Indicates whether to use a DBRM or to COPY an existing package. They are mutually exclusive. If you select DBRM, indicate PACKAGE ID

PACKAGE ID

Specify the name of the package to COPY.

COLLECTION ID

Specify the name of the collection containing the package to copy. Indicate where the package is to reside with LOCATION NAME.

LOCATION NAME

Specifies the location of the DBMS where the package is bound. The default is the local DBMS.

Panel Commands

The commands available from both the primary and alternate panels are:

DESC <xxx>

The value of xxx is a 1-30 character description for a **new** Bind options member.

LANG <xxx>

The value of xxx is a 1-3 character language for a **new** bind options member. This language is stored with the member as part of its control information (and should not be confused with the member's 1-8 character LIB/CCF language that determines what action takes place when the member is logged in).

CANCEL

Exits the panel.

ALTERNATE

Can be abbreviated to A. Displays either the primary or alternate DB2 for z/OS and OS/390 PLAN UPDATE panel (depending on which panel is currently displayed).

END

Updates the information on the DB2 for z/OS and OS/390 PLAN UPDATE panel to the existing bind options member on the test master file or create a bind options member if one does not exist.

SAVE

Updates the test master file with the information on the DB2 for z/OS and OS/390 PLAN UPDATE panel without exiting the panel.

SORT

Sorts the table by keyword. (The table is automatically sorted when saved; however, the command can be useful when adding new keywords.) You can use the UP/DOWN PF keys to scroll the panels.

Initiating a Production Bind Request

Once all source modules for a change request are updated, you will probably need to bind the DB2 for z/OS and OS/390 application. You can do this by proceeding to Option 6 after the login functions are complete.

As is the case with the transfer of members to and from production files, the responsibility for actually performing the bind can rest either with the control group or with the programmer. If the programmer is responsible, the bind request is honored immediately. If the control group is responsible, the request is placed in the control group's queue, to be processed from the System Link/Bind Request Status panel (Option 10).

From Option 6 (LINK), the programmer can link or bind an application. When you specify B (bind), the System Bind panel displays.

```

THU mm/dd/yy ----- SYSTEM BIND ----- 15.42.44
COMMAND ==>

PRODUCTION MASTER FILE ==> 001    REQUEST ID ==> W0000006

BIND SYSIN MEMBER ==>          OR BIND JCL MEMBER ==>
OVERRIDE SKELETON ==>

AVAILABLE FILES: CHAIN DESC./CHAIN NUMBER/PRODUCTION/DBRM:

001) DB2 CHAIN                                (00001)

      LIBR.PROD.MAST
      LIBR.PROD.DBRMLIB
*** END OF LIST ***

```

Note: If your site specified that binds are performed online, only the BIND SYSIN MEMBER field appears on this panel.

Panel Fields

The panel fields are:

PRODUCTION MASTER FILE

Enter the number of the master file/DBRM library combination from the list of available files. Only library chains that contain a DBRM library name are listed under the Available Files field.

BIND SYSIN MEMBER

Mutually exclusive with JCL MEMBER. Specifies a bind options member that resides on the production master file. This member is used as SYSIN to the default bind skeleton unless you specify an OVERRIDE SKELETON.

BIND JCL MEMBER

Mutually exclusive with BIND SYSIN MEMBER and OVERRIDE SKELETON. Specifies a **complete** JCL member that resides on the production master file. The member is submitted as is. The JCL MEMBER must have a job card (the job name is derived from that job card, not the Option 0 Job Card specification).

OVERRIDE SKELETON

Mutually exclusive with JCL MEMBER. Requires a BIND SYSIN MEMBER. Specifies a skeleton to use in place of the default bind skeleton. The skeleton must reside in the skeleton library for TSO and VM/ESA or the library where LIB/CCF is installed for CA Roscoe. The BIND SYSIN MEMBER is used as SYSIN to the OVERRIDE SKELETON.

Chapter 8: Exception Handling

Occasionally, you might encounter problems at certain points during the change cycle. The following sections describe some problems and exceptions that can occur during logout and login, and their solutions.

This section contains the following topics:

[Error Messages](#) (see page 99)

[Emergency Changes](#) (see page 100)

[Multiple Programmers for One Module](#) (see page 101)

[Rerunning a Failed Batch Job](#) (see page 102)

[Possible Logout Problems](#) (see page 102)

[Possible Login Problems](#) (see page 106)

Error Messages

LIB/CCF conveys error messages in different ways, depending on the environment. The following sections provide an overview of LIB/CCF messages. For the actual error message, explanatory text, and corrective action, see the *Message Reference Guide*.

CA Roscoe Error Messages

LIB/CCF-CA ROSCOE differentiates online errors by their severity into two classes, system and user. Because only the LIB/CCF Administrator can resolve system errors, CA ROSCOE LIB/CCF sends all system error messages to the administrator. The administrator's ZZZZMSG member shows the name of the Z-prefixed member that holds the error messages.

However, for online user errors, CA ROSCOE LIB/CCF sends the messages to a member in your CA ROSCOE library. CA ROSCOE LIB/CCF displays a message, with the return code, referring you to the name of a member where you can find the full error message. Exit LIB/CCF and view this CA ROSCOE member; if necessary, contact your manager to discuss ways of resolving the error.

ISPF(TSO) Error Messages

In the ISPF(TSO) environment, an update error message is stored in a sequential data set. The data set is named *prefix.userid.CCF.MSGS* (where *userid* is the TSO logon ID) when PROFILE PREFIX is set. When PROFILE NOPREFIX is set, the data set name is simply *userid.ccf.msgs*. If an error occurs and LIB/CCF can recover without abending, an error message displays at the terminal. Pressing PF1 provides a longer message and can direct you to the **prefix.userid.ccf.msgs** data set for further information. View the message data set immediately after notification of error since LIB/CCF re-uses the data set for subsequent recording of messages.

ISPF(VM/ESA) Error Messages

Occasionally, the LIB/CMS LIBEXP command terminates abnormally, writing an UPDATE FAILURE message to the terminal. Pressing PF1 directs you to a VM/ESA file called \$CCF\$ LISTING on your A disk. View the file immediately for further information about the error.

AllFusion CA-Vollie Error Messages

LIB/CCF-CA Vollie errors are separated into two classes, depending on their severity. Only the LIB/CCF Administrator can resolve **system errors**. When a system error occurs, you receive an error panel and the administrator is notified of the details of the error.

When a **user error** occurs, LIB/CCF-CA Vollie creates an error message member in your CA Vollie library. An error message displays at the terminal identifying the error member name. Exit LIB/CCF and list this CA Vollie member. If necessary, contact your manager to discuss ways of resolving the error.

Emergency Changes

CA Technologies recommends that your site set up a procedure for emergency changes.

Your system LIB/CCF administrator can define an application to use specifically for emergency changes. The emergency application opens emergency change requests. In addition to the emergency application, there should be at least one person at your site whose user ID is defined as the emergency key. That person should also be defined as the manager of the emergency application, as a programmer reporting to himself, and as a control group member. Check with the LIB/CCF Administrator for the name of the emergency application and emergency user ID.

Whoever is defined as having the emergency user ID is automatically granted multiple logout privileges and given the powers of a control group member. Whoever signs on to the emergency user ID can process any requests in the control group's queues and can execute all LIB/CCF activities from beginning to end (except, of course, the LIB/CCF administrator's); he can open an emergency change request, assign the change request to himself, logout the member, fix it, log it in, do the link, and close the change request.

Multiple logout privileges let the holder of the emergency user ID logout a member that was already logged out, whether multiple logouts are permitted generally at the site. (See the following section for a description of multiple logouts.)

Multiple Programmers for One Module

The normal mode of operation for LIB/CCF allows only one programmer to logout a particular module at a time. However, if your site needs multiple programmers to be able to logout and work on the same module at the same time, the system administrator can enable LIB/CCF to permit and track multiple logouts of one module.

This is the procedure to follow in that case:

1. Programmer A logs out a module to test master file A.
2. Programmer B logs out the same module to test master file B. The logout displays a panel informing him that programmer A already has the module logged out and provides an option to either continue or terminate the logout.
3. Programmer A makes his changes and submits a LOGIN request for the module.
4. Programmer B makes his changes and submits a LOGIN request for the module.
5. The control group successfully processes the LOGIN request from programmer A, which copies the new version back into production.
6. When the control group tries to process the second request, LIB/CCF displays a panel telling them that the version check failed, that the production copy of the module was updated by someone else since the LOGOUT. This panel shows the current production version, the logged out version, and all levels in between.
7. The panel provides the option to generate an Archive Cross Level Report. Select this option; it produces a report showing the differences between the current level and the logged out level of the production module and the differences between the current level and the logged out level of the test module.
8. Review the report carefully. Change programmer B's copy, incorporating the changes made by programmer A.
9. Once the changes are reconciled, try the move again. When the version check failure panel appears, select the override option this time.

Programmer B's test module, now containing all the changes made to the module by both Programmer A and Programmer B, updates the production module at this point.

As you can see, this method of operation calls for very close manual control to ensure that all necessary changes are made to the module before it goes back into production.

Rerunning a Failed Batch Job

When LIB/CCF submits a batch job, two important things take place: a Job Submission Record (JSR) is placed in the Pending Job Status queue (Option 11) and a JCL member containing the complete job stream is added to the LIB/CCF system master file. If the job executes successfully, the JSR is automatically removed from the Option 11 queue and the JCL member is deleted from the system master file. However, if the job fails, the JSR and the JCL member remain for subsequent processing.

An examination of the job output shows what steps ran and what steps failed. If there are JCL errors, you must correct the JCL member.

Job stream members reside in the system master file, and may be edited either from CCF Option 11 (via ELIPS only) or outside of CCF. For security reasons, the job stream members on the system master file carry a PROD-2 status. When editing directly from CCF Option 11, note that protection of the job stream member can occur in several ways. First, by specifying a value of NO for JSREDIT (the default) in the CCF System Profile Table (see the section on the System Profile Table in the "Administrator Functions in LIB/CCF" chapter of the *LIB/CCF Implementation Guide*), only control group members may attempt to edit the member. Specifying YES does not restrict edit privileges to the control group. It is possible to permit edits outside of the control group, yet limit this capability to a small subset of users. This can be accomplished by specifying YES for JSREDIT and utilizing the Member Level Security feature of an external security package to restrict access to Y members on the system master file.

After the job stream member is corrected, the control group or programmer (determined by site option) can use the RESUBMIT command from Option 11. See the section titled Processing Pending Jobs (Option 11) for details on Option 11, RESUBMIT processing.

Possible Logout Problems

When you log out an existing member, you are copying it from a production master file to a test master file or requesting the control group to do so if logouts are under their control at your site.

Normally the logout proceeds smoothly and the member is copied to your test master file, except in the following cases:

1. The member is already on the test master file.
2. The member is already logged out through CCF.
3. Your site performs batch logouts, and the batch job fails.
4. The control group is in charge of logouts, and they reject your request.
5. You exceeded the number of members you are allowed to log out simultaneously.
6. The logout is undesirable in some way and must be cancelled.

The following sections describe ways to solve these problems as they arise.

Member is Already on the Test Master File

When you log out an existing member, you are requesting LIB/CCF to provide you with a copy of the member. LIB/CCF places this copy on the test master file you specify. But if LIB/CCF discovers that the test master file already has a member with the same name, it rejects your logout request, even though the member is not already logged out.

The reason for this is that underlying the logout process is the idea that there should not be extraneous copies of members outside of production. Unless a member is being worked on (that is, unless it was logged out through CCF), it really should not be on your test master file. Yet, this can happen if previous work on the member did not finish cleanly.

In any case, you should contact your manager and investigate why the test master file already contains a copy of the member you want to log out. After satisfying yourselves of the member's integrity, you should then delete the copy from the test master file and try the logout again.

Member is Already Logged Out

Generally, when a programmer logs out a member, LIB/CCF does not permit anyone else to log out that same member. If you should try, LIB/CCF rejects your logout and issues an explanatory message.

However, your LIB/CCF Administrator might have installed LIB/CCF to allow multiple logouts of the same member. Even if this is the case, each logout must be to a different test master file.

When you try to log out a member that is already outstanding, LIB/CCF displays a list of all the test master files where the member was already logged out.

If the test master file you selected already has the member (someone else is using the same master file), LIB/CCF rejects your request outright. You might want to contact the other programmer (whose name displays on the screen) and discuss ways of resolving this conflict.

If no one else is currently using your test master file, LIB/CCF lets you either continue or terminate your request. You might want to terminate at this point and discuss with your manager the fact that you and another programmer will be working on the same member at the same time. But if you want to continue, you must type in continue on the command line.

Batch Job Fails

If your LIB/CCF system is set up for batch logouts, then every time you log out a member, LIB/CCF submits a batch job to copy the member from production to your test master file.

For each job that it submits, LIB/CCF puts an entry into the Pending Job Status queue, which you can view from Option 11. The entry provides the production and test master file names and the name and number of the batch job.

If the job runs to completion without errors, the Pending Job Status queue entry is automatically deleted. Otherwise, it remains to remind you that the job failed and needs your attention.

After examining the job output identified by job name and job number, you should discuss with your manager what you should do next. If some steps ran but others did not because of JCL errors, the job output reveals this.

Job stream members reside in the system master file, and may be edited either from CCF Option 11 (via ELIPS only) or outside of CCF. For security reasons, the job stream members on the system master file carry a PROD-2 status. When editing directly from CCF Option 11, note that protection of the job stream member can occur in several ways. First, by specifying a value of NO for JSREDIT (the default) in the CCF System Profile Table (see the section on the System Profile Table in the “Administrator Functions in LIB/CCF” chapter of the *LIB/CCF Implementation Guide*), only control group members may attempt to edit the member. Specifying YES does not restrict edit privileges to the control group. It is possible to permit edits outside of the control group, yet limit this capability to a small subset of users. This can be accomplished by specifying YES for JSREDIT and utilizing the Member Level Security feature of an external security package to restrict access to Y members on the system master file. Once changes have been made, you may resubmit the job stream from Option 11.

If the job runs to completion this time with no errors, the Pending Job Status queue entry goes away. Otherwise, you must repeat the above few steps as many times as necessary.

On the other hand, if you cannot figure out the errors, then there could be a problem with logout processing. Your manager and the LIB/CCF Administrator must resolve the problem before you can continue.

Control Group Rejects Your Logout Request

If LIB/CCF does not execute your logout request immediately but instead channels it to a control group, you must wait for the control group to process your logout request.

By monitoring the Option 9 (MOVEMENT STATUS) queue, you can observe what happens to the Module Movement Record (MMR) that corresponds to your logout request.

When the control group processes your request, the member gets copied from production to your test master file. When that happens, the MMR disappears from Option 9.

However, if the control group rejects your logout request, the MMR is marked with a *REJECTED* indicator. It is then up to you to contact the control group to find out their reasons and decide what to do next. You can decide to try the logout again or wait till later. In either case, use the Option 9 DELETE command to delete the MMR.

Depending on site options, either you or the control group will be able to delete the MMR.

Member Logout Limit is Exceeded

The LIB/CCF Administrator specifies the maximum number of members that can be logged out to a programmer at the same time. If you try to logout a member and that would exceed the maximum, LIB/CCF rejects your logout.

When this happens, finish up your work on the other members you have already logged out and log them in. Then you can try your logout again.

If logging in members is not feasible, discuss the problem with your manager.

Cancelling a Logout

If after logging out a member, you find that it really was not necessary in the first place, you can cancel the logout. To cancel, go to your login queue (Option 5) and locate the entry that corresponds to the member. Delete the entry.

LIB/CCF automatically deletes the member from your test master file (unless the entry is for a new module) to prevent the proliferation of copies outside production.

If LIB/CCF channeled your logout request to the control group and the control group has not acted on it yet, LIB/CCF cancels that request also.

Possible Login Problems

The following conditions can block the login process:

- The member is not on the test master file.
- Your site performs batch logins, and the batch job fails.
- The program fails in assembly or compilation.
- Multiple logouts are allowed at your site, and someone else logged out and changed the member.
- The control group is in charge of logins, and they reject your request.

Depending on site option, if your login request is channeled to the control group, LIB/CCF can lock the member on your test master file. This prevents any further modifications to the member until it gets moved to production and finally deleted from your test master file.

The following sections describe ways to solve login problems as they arise.

Member is Not on the Test Master File

When you log in a member, you are effectively requesting LIB/CCF to update production with your test master file copy of that member. Naturally, if LIB/CCF cannot locate the member on your test master file, it cannot perform the login.

If you are logging in a brand new member, you might have neglected to create it on your test master file. If the member was deleted without your knowledge, speak with your manager to discuss ways of recovering the member, perhaps from a backup.

Therefore, before you log in a member, make sure it is on your test master file. And, because the login process also involves assembly or compilation of the member, finish any preliminary assembly or compilation and testing before you log in the member.

Batch Job Fails

If your LIB/CCF system is set up for batch logins, then every time you login a member, LIB/CCF can submit a batch job to update the production member with your test master file version. LIB/CCF additionally assembles or compiles the member.

Regardless of whether your login request is processed immediately or channeled to the control group, the assembly or compilation step always takes place in batch.

When LIB/CCF submits a batch job, two important things take place: a Job Submission Record (JSR) is placed in the Pending Job Status queue (Option 11) and a member containing the complete job stream is added to the LIB/CCF system master file. If the job executes successfully, the JSR automatically removes it from the Option 11 queue and the job stream member is deleted from the system master file. However, if the job fails, the JSR and the job stream member remain for subsequent processing. An examination of the job output shows what steps ran and what steps failed. If there are JCL errors, you must correct the job stream member.

An examination of the job output shows what steps ran and what steps failed. If there are JCL errors, you must correct the JCL member.

Job stream members reside in the system master file, and may be edited either from CCF Option 11 (via ELIPS only) or outside of CCF. For security reasons, the job stream members on the system master file carry a PROD-2 status. When editing directly from CCF Option 11, note that protection of the job stream member can occur in several ways. First, by specifying a value of NO for JSREDIT (the default) in the CCF System Profile Table (see the section on the System Profile Table in the “Administrator Functions in LIB/CCF” chapter of the *LIB/CCF Implementation Guide*), only control group members may attempt to edit the member. Specifying YES does not restrict edit privileges to the control group. It is possible to permit edits outside of the control group, yet limit this capability to a small subset of users. This can be accomplished by specifying YES for JSREDIT and utilizing the Member Level Security feature of an external security package to restrict access to Y members on the system master file.

After the job stream member is corrected, the control group or programmer (determined by site option) can use the RESUBMIT command from Option 11. See the section titled Processing Pending Jobs (Option 11) in Chapter 5 for details on Option 11, RESUBMIT processing.

Assembly or Compile Fails

Of course, you made sure that the member assembles or compiles correctly and tested it thoroughly before starting the login process. Nevertheless, assembly or compilation errors can sometimes occur, indicating that you need to revise your changes to the member. Because the member was already logged in, you must logout the member again. But before you do that, you must process the Pending Job Status queue entry.

This removes the entry and lets you log out the member anew from Option 4.

There are Multiple Logouts

If your LIB/CCF system allows multiple logouts, it can cause special problems for the programmers. For example, if programmer B logs out a member that programmer A logged out earlier, programmer A does not know about it. Programmer B might then log in the member before programmer A does. LIB/CCF processes his login normally. However, when programmer A tries to log in his new version of the member, LIB/CCF issues a message that the version of the member being updated changed and displays this panel:

```
MODULE VERSION CHECK FAILURE FOR: COBMOD
DESTINATION MASTER ==> LIBR.PROD.MAST
LOGGED OUT VERSION ==>07281055  CURRENT VERSION ==>05251025
GENERATE ARCHIVED CROSS-LEVEL REPORT ==>  OVERRIDE ==>

      ARC    VERSION    PSWD PGMR    DESCRIPTION
CUR VER=>  -0 03/05/25 10:25 QXRF BAKER  COBOL TEST PROGRAM
L/O VER=>  -1 03/07/28 10:55 QXRF BROWN  FIRST INCLUDE
```

Use this panel to request that LIB/CCF generate a Archive Cross-Level Report to help reconcile the differences between programmer A's version and the version currently on the production master file.

For LIB/CCF-AllFusion CA-Vollie

The Cross Level Compare uses the batch CA Librarian -OPT COMPARE function to produce a report showing the differences between the current level and the logged out level of the production member. It also shows the differences between the current level and the logged out level of the test member.

For LIB/CCF-CA Roscoe and ISPF(TSO)

The Cross Level Compare uses Comparator II. The compare job contains three steps.

1. Compares the current level in the test or Q/A master file to the level logged out from production.
2. Compares the current level in the production master file to the level logged out from production.
3. Compares the current level of each file.

For LIB/CCF-ISPF(VM/ESA)

The VM/ESA Comparator, which incorporates Comparator II logic, is used. The comparison involves three steps.

1. Compares the current level in the test or Q/A master file to the level logged out from production.
2. Compares the current level in the production master file to the level logged out from production.
3. Compares the current levels of each file.

The comparison report is written to the PRINTER file.

After examining the Cross-Level Reports, the programmer must revise the test member to reconcile all changes and login the member again. LIB/CCF again reports that its version check failed and presents the same panel. As long as the member was not changed after the programmer's first login attempt, he can select OVERRIDE and login the member. However, if the member was again updated while the test member was being revised, he must again reconcile the changes.

To determine if it is safe to override with your revised test member, keep a record of the number of new levels created since your original logout. LIB/CCF provides this information on the panel. If the number changed since you postponed your login for code reconciliation, you must generate Cross-Level Reports that show the new changes and reconcile them again.

CA Vollie users have an additional option on this panel to generate an archive index report. Depending on the security level of the module on the test master, LIB/CCF-CA Vollie might not be able to identify all the intermediate levels of the production module for online display. In this case, a message is issued. You can select this panel option to submit a batch archive index job.

Control Group Rejects Your Login Request

If LIB/CCF does not execute your login request immediately but instead channels it to a control group, you must wait for the control group to execute your login.

By monitoring the Movement Status queue from Option 9, you can observe what happens to the entry that corresponds to your login request.

Generally speaking, the control group is responsible for the login process from beginning to end.

However, the control group can reject your login request. In that case, LIB/CCF marks the Module Movement Request entry as ***REJECTED***. Additionally, LIB/CCF puts back in your login queue (Option 5) an entry for the member and also marks it as ***REJECTED***. This lets you log in the member again at a later time.

By site option, the member can be locked on the test master when the programmer requested that it be logged in. In this case, the control group must use the UNLOCK command from Option 9 to unlock the member before it can be worked on again.

Either the control group or the programmer must delete the rejected MMR from the queue (Option 9), depending on site option. Use the DELETE command to do this.

If the programmer deletes the rejected MTR from his login queue (Option 5), it cancels the original logout and deletes the member from the test master file. The member is now eligible to be logged out again.

Contact the control group right away to find out their reasons for rejecting your login request. Then decide what to do next. Perhaps the reasons were trivial and easily resolved, in which case, you can try the login again.

But if you want to nullify all the work you have done on the member (that is, cancel the original logout so that other programmers can work on the member), you should delete the member's entry from your login queue (Option 5). Afterwards, you should get your manager's help in removing the member, now locked, from your test master file.

In either case, either the control group or you should delete the Movement Status entry (marked as ***REJECTED***) from the queue (Option 9) before doing anything else.

Control Group Rejects Your Link/Bind

If LIB/CCF does not execute your link-edit or DB2 for z/OS and OS/390 bind request immediately but instead channels it to a control group, then you must wait for the control group to execute your link-edit or bind.

By monitoring the Link Status queue from Option 10, you can observe what happens to the entry that corresponds to your link or bind request.

Generally speaking, the control group is responsible for the link or bind process from beginning to end.

However, the control group can reject your request. In that case, LIB/CCF marks the System Link/Bind Request as ***REJECTED***. Contact the control group right away to find out their reasons for rejecting your request. Then decide what to do next. Either the control group or you should delete the System Link/Bind Record (marked as ***REJECTED***) from the queue (Option 10) before doing anything else. You can then correct the problem and issue the link or bind request again.

Chapter 9: Reports

This chapter illustrates and explains the reports you can run.

This section contains the following topics:

[Automatic Reports](#) (see page 111)

[Requesting Reports](#) (see page 116)

[Unassigned Requests Report \(Option 8.1\)](#) (see page 118)

[Assigned Requests Report \(Option 8.2\)](#) (see page 119)

[Module Logout Report \(Option 8.3\)](#) (see page 119)

[Module History Report \(Option 8.4\)](#) (see page 120)

[Login/Logout Request Status Report \(Option 8.5\)](#) (see page 122)

[Linkedit/Bind Request Status Report \(Option 8.6\)](#) (see page 123)

[Pending Job Status Report \(Option 8.7\)](#) (see page 123)

[Change Request Report \(Option 8.8\)](#) (see page 124)

[LCDF \(Option 8.9\)](#) (see page 128)

[DB2 for z/OS and OS/390 Reports \(Option 8.10 for z/OS and OS/390 Only\)](#) (see page 129)

Automatic Reports

If your site chose them as options, one or more of the following reports are produced automatically in the course of LIB/CCF operations:

Change Request Report

A partial Change Request Report is produced when a change request is opened. It is directed to the person who opened the change request.

```
LIB/CCF CHANGE REQUEST REPORT - W0000001

REQUESTOR: Bob Jones          PHONE: X4038
MANAGER: Ron Smith           APPL/SYSTEM: OEX DISTRIBUTION
DEPARTMENT: Accounting       TYPE: MOD.
COORDINATOR: Gail Johnson    PHONE: X3245
OPENED: 08/23/03 13.10.31    ASSIGNED TO PGMR: N/A

DESCRIPTION: Subroutine LVSSECT must be changed to accommodate
              rounding off to nearest tenth of a cent.
```

Assignment Notification Report

An Assignment Notification Report is produced when the applications manager assigns the change request to a programmer. It is directed to the programmer.

LIB / CCF
ASSIGNMENT NOTIFICATION

TO: Bob Jones
FROM: Tom Smith
Accounting
DATE: 08/23/96
SUBJECT: W0000001

You are hereby notified that your request has been assigned to programmer BAKER.

Completed Change Request Report

A complete Change Request Report is produced when the programmer closes the change request. It is directed to the programmer.

LIB/CCF CHANGE REQUEST REPORT - W0000001

REQUESTOR: Bob Jones PHONE: Ext. 4038
MANAGER: Ron Smith DEPARTMENT: Distribution
COORDINATOR: Gail Johnson PHONE: Ext. 4056
APPL/SYSTEM: OEX DISTRIBUTION TYPE: MODIFICATION
OPENED: 08/23/96 13.10.31 STATUS: CLOSED 08/26/96
BY BAKER

DESCRIPTION: When an invalid shipping code is entered on panel OEX120 and message 'nnnn IS NOT A VALID SHIP CODE', provide an option to display a list of valid codes.

MGR COMMENT: Branch to the SHIP/TRAN subsystem in order to obtain the list of codes. Provide return to OEX120.

Change Request Activity Report

LIB/CCF CHANGE REQUEST ACTIVITY REPORT

CR W0000001

PGMR: BAKER

MODULE LOGOUT REQUESTS:

OEX530 CR: W0000001 LOGOUT STAMP: 08/24/03 09:15:32
PROD MASTER: LIBR.PROD.MAST
TEST MASTER: LIBR.TEST.MAST
VERS=*NEW*

MODULE LOGIN REQUESTS:

OEX530 CR: W0000001 LOGOUT STAMP: 08/24/03 09:15:32
PROD MASTER: LIBR.PROD.MAST
LOGIN STAMP: 08/25/03 13:48:00
VERS=*NEW*

PROCESSED MOVEMENT REQUESTS:

OEX530 CR: W0000001 TO: PROD DATE: 08/25/03 15:56:31
FROM MASTER: LIBR.PROD.MAST
TO MASTER: LIBR.TEST.MAST
VERS=*NEW*

REJECTED LOGIN/LOGOUT REQUESTS:

NONE

DELETED LOGOUT REQUESTS:

NONE

SYSTEM LINK REQUESTS:

W0000001 LKED SYSIN MEMBER: OEXLINK OPTS: 001101
PROD MASTER: LIBR.PROD.MAST
LKED: 08/25/03 16.42.57 FILEID: 001

PROCESSED SYSTEM LINK REQUESTS:

W0000001 LKED SYSIN MEMBER: OEXLINK OPTS: 001101
PROD MASTER: LIBR.PROD.MAST
LKED: 08/25/03 17.03.31 FILEID: 001

REJECTED SYSTEM LINK REQUESTS:

NONE

RESUBMITTED BATCH ACTIVITY:

NONE

COMPLETED BATCH ACTIVITY:

BAKERA J03092 CR: W0000001 DATE: 08/25/03 15.56.32
PROD MASTER: LIBR.PROD.MAST
MODULE NAME: OEX120 TYPE: MOVE Y0404925 W0000001
VERS=*NEW*

BAKERB J04831 CR: W0000001 DATE: 08/25/03 17.03.32
PROD MASTER: LIBR.PROD.MAST

MODULE NAME: OEXLINK TYPE: LKED Y9603455 W0000001

Change Request Close Report

LIB/CCF CHANGE REQUEST CLOSE REPORT

CHANGE REQUEST ID: W0000001 TYPE: CLOSED

ANALYSIS:

Panel OEX120 has been modified to indicate that PF7 provides a list of valid ship codes. A new program, OEX530 browses the ST1100 database, builds the list, and provides a cursor select function to insert the desired ship code into the 'SHIP T0:' field upon return to OEX120.

ROUTINES AFFECTED:

OEX/TS0 and OEX/CICS

SYSTEMS TESTS MODIFIED ON: 8/25/03

SYSTEMS TESTS VERIFIED ON: 8/25/03

SYSTEMS TESTS ADDED OR MOD:

OEXST120 modified to test PF7.
OEXST530 added.

NEW USER INPUT:

None.

NEW USER OUTPUT:

None.

DOCUMENTATION CHANGES

None.
Update OEX User Guide to indicate that PF7 from panel OEX120 now provides a list of valid ship codes.

CLOSED: 08/26/03 14.00.19

Requesting Reports

You can view reports online or printed from the report request panel that displays when you select a report option from Option 8. The following panel displays when you select Option 8:

```

--- mm/dd/yy ----- REPORT GENERATION ----- TIME 15:24
OPTION ==>
-
1 UNASSIGNED      - Unassigned requests
2 ASSIGNED        - Assigned requests
3 LOGOUT          - Module logout
4 HISTORY         - Module history
5 MOVEMENT        - LOGIN/LOGOUT request status
6 LINK STATUS     - Linkedit/bind request status
7 JOB STATUS      - Pending job status
8 CHANGE REQUEST  - Change request
9 LCDF            - Library chain definition
10 DB2            - DB2

```

When you select a report option, you see the Report Request panel that lets you specify report options.

Generalized Report Request Panel

The following example displays a generalized report request panel (that is, not all of the fields on this panel appear for all of the reports).

```

COMMAND ==>
REPORT STATUS ==>  VIEW( )   PRINT( )
REPORT TYPE ==>   PGMR( )   GROUP( )
      CCF ID ==>    (For PGMR report type)
PRINT DEST ==>    COPIES ==>

```

The following fields appear on the report request panels:

REPORT STATUS

You can view the reports online or print them. Place an X next to the option.

VIEW

Displays the report at the terminal. You can use PF keys to scroll through the reports. For CA Roscoe and CA Vollie, PF19 scrolls backward and PF20 scrolls forward. For ISPF, the LIB/CCF default PF key settings are PF19 for up and PF20 for down.

PRINT

Prints the report.

- For z/OS and OS/390 and VSE/ESA sites, the LIB/CCF Administrator determines whether the report prints online or through a batch job.
- For ISPF(VM/ESA) users, the Report Print Specification panel displays. You can route print requests to the VM/ESA print spool or to a VM/ESA file. Use this panel to supply information to either spool the report or to create a VM/ESA file. This panel is also available from Option 0.5, which lets you set default information. However, it redisplay for every print request, letting you modify the information.

PRINT DEST

Not applicable to ISPF(VM/ESA). If you specified PRINT, you can optionally enter a print destination. If you did not specify a PRINT DEST, the default print destination for the user ID is used.

- For CA Roscoe online printing, supply an RPS defined printer.
- For CA Roscoe batch printing, supply a JES defined printer.
- For CA Vollie online printing, supply a valid CICS printer identification.
- For CA Vollie batch printing, supply a valid destination for the POWER LST statement.
- For ISPF(TSO) online or batch printing, supply a JES defined printer.

COPIES

Not applicable to ISPF(VM/ESA). If you specified PRINT, you can specify the number of copies you want printed (a number from 1 to 9). If not specified, one copy prints.

REPORT TYPE

A manager or control group member can generate the report for a single programmer or for all programmers in your group. Place an X next to the option

PGMR

Generates the report for the programmer specified in the CCF ID field.

GROUP

Generates the report for all of the programmers in the group.

CCF ID

Used only when PGMR is specified. Defaults to your CCF ID.

The following commands are available while displaying the reports:

TOP

Positions to the top of the report file.

BOTTOM

Positions to the end of the report file.

FIND <string>

Positions to the first occurrence of the specified string. Do not use delimiters.

NEXT

(CA Roscoe and CA Vollie.) Repeat the last FIND command, beginning the search at the last positioned occurrence of the string.

RFIND

(ISPF only.) Repeat the last FIND command, beginning the search at the last positioned occurrence of the string.

PRINT

Prints one copy of the report at the default print destination for the user ID.

For ISPF(VM/ESA), the Report Print Specification panel displays.

Unassigned Requests Report (Option 8.1)

The Unassigned Requests Report shows all the unassigned change requests for the applications manager requesting the report.

U N A S S I G N E D R E Q U E S T S				
REQUEST:	INITIATED:	TYPE:	STATUS:	RESPONSIBILITY:
-----	-----	-----	-----	-----
W0000002	970109 0000	PROBLEM	*UNASSIGNED*	MGR: BROWN
W0000004	970509 0000	PROBLEM	*UNASSIGNED*	MGR: BROWN
TOTAL: 0002				

Assigned Requests Report (Option 8.2)

The Assigned Requests Report shows all the change requests that the applications manager assigned to programmers in his group.

```

A S S I G N E D R E Q U E S T S

      LAST
REQUEST:  ACTIVITY:    TYPE:    ASSIGNED:
-----
W0000005  030114 1619  PROBLEM  ASSGN: SMITH  MGR: BROWN
W0000006  030121 1239  PROBLEM  ASSGN: ROGERS MGR: BROWN
W0000008  030122 1320  PROBLEM  ASSGN: SMITH  MGR: BROWN

TOTAL: 0003

```

Module Logout Report (Option 8.3)

The Module Logout Report displays information about modules currently logged out by programmers in your group.

```

      M O D U L E L O G O U T R E P O R T

LVSSECT  CR: W0000001 LOGOUT STAMP: 08/15/03 11.40.30
          PROD MASTER: LIBR.PROD.MAST
          TEST MASTER: LIBR.TEST.MAST
          VERS=06141051

TOTAL: 00000001

```

A manager can request the report for a single programmer or all of the programmers reporting to him.

A programmer can request the report only for the modules currently logged out to him.

The control group can request the report for a single programmer or for all programmers (from all groups).

Module History Report (Option 8.4)

The Module History Report request panel requires a module name and the number appearing beside the production master file (from the list of available files) where it resides.

```
COMMAND ==>

      MODULE NAME ==>

PRODUCTION MASTERFILE ==>

REPORT STATUS ==>  VIEW( )    PRINT( )

      PRINT DEST ==>          COPIES ==>

AVAILABLE FILES: 001) LIBR.PROD.MAST
                  002) LIBR.PROD.MASTACCT
                  003) LIBR.PROD.MASTCRDT

*** END OF LIST ***
```

You can use the following commands to search the list of available files.

FIND string

Positions to the first occurrence of the specified string. Do not use delimiters.

NEXT

(CA Roscoe and CA Vollie) Repeat the last FIND command, beginning the search at the last positioned occurrence of the string.

RFIND

(ISPF only) Repeat the last FIND command, beginning the search at the last positioned occurrence of the string.

The Module History Report displays the history member for a specified module. The last programmer to make a change to the module or his manager can request this report. Depending on site options, the control group or anyone can generate the report.

```
LIB/CCF MODULE HISTORY REPORT - ACCGRID
PROGRAMMING LANGUAGE:  ASM          PROGRAMMER: BROWN
PRODUCTION MASTER:  LIBR.PROD.MAST
DATE CREATED: 09/27/03 09.50.37 CR: W000002
SYSTEM: ACCOUNTS PAYABLE
DESCRIPTION: COMMON ROUTINE FOR SUBROUTINES
ABSTRACT: This routine is used by all of the
          A.P. online subroutines in calculating
          interest rates.
DESCRIPTION OF CHANGES:
CR: W0000025 mm/dd/yy 11.05.24 PGMR: BROWN
Allow for program authorization.
```

Login/Logout Request Status Report (Option 8.5)

The Login/Logout Status Report displays outstanding login and logout requests (that is, requests that are not yet processed by the control group).

```
      L O G I N / L O G O U T R E Q U E S T S

LIBREST CR:W0000001 TO: TEST DATE: 08/22/03 11.45.56 PGMR: LI
      PROD MASTER: LIBR.PROD.MAST
      TEST MASTER: LIBR.TEST.MAST
      VERS=08041051

LIBBKUP CR:W0000002 TO: PROD DATE: 08/26/03 13.51.30 PGMR: LI
      PROD MASTER: LIBR.PROD.MAST
      CURR MASTER: LIBR.QA.MAST
      VERS=06151451

TOTAL: 00000002
```

A manager can request the report for a single programmer or all of the programmers reporting to him.

A programmer can request the report only for his own login and logout requests.

The control group can request the report for a single programmer or for all programmers (from all groups).

Linkedit/Bind Request Status Report (Option 8.6)

The System Linkedit/Bind Status Report displays a list of all requests for system link-edits and DB2 for z/OS and OS/390 binds that were submitted to the control group for processing.

L I N K E D I T / B I N D R E Q U E S T S			
W0000015	LKED SYSIN MEMBER: LKEDMEM	OPTS: 001101	PGMR: BROWN
	PROD MASTER: LIBR.PROD.MAST		
	LKED: mm/dd/yy 14:29:53	FILEID: 01	
W0000036	BIND SYSIN MEMBER: BINDMEM		PGMR: BROWN
	PROD MASTER: LIBR.PROD.MAST		
	BIND: mm/dd/yy 15.30.56	FILEID: 001	
TOTAL: 0000002			

A manager can request the report for a single programmer or all of the programmers reporting to him.

A programmer can request the report only for his own link-edit or bind requests.

The control group can request the report for a single programmer or for all programmers (from all groups).

Pending Job Status Report (Option 8.7)

For every batch job submitted by LIB/CCF (except print jobs), a Job Submission Record (JSR) is created to track the job. Pending Job Status Report displays a list of all outstanding Job Submission Records. An outstanding JSR indicates that the job is either currently executing, awaiting execution (for z/OS and OS/390, it can be a scheduled job) or executed unsuccessfully. These batch jobs can include jobs to perform module movements, compiles, link-edits, or DB2 for z/OS and OS/390 binds.

P E N D I N G J O B S T A T U S R E P O R T			
LIA	J03747 CR: W0000038	DATE: 11/28/02 13.56.00	PGMR: LI
	PROD MASTER: LIBR.PROD.MAST		
	MODULE NAME: ACCTTXT	TYPE: MOVE	Y3560437
	VERS=09771348		
TOTAL: 00000001			

A manager can request the report for a single programmer or all of the programmers in your group.

A programmer can request the report only for jobs that he submitted.

The control group can request the report for a single programmer or for all programmers (from all groups).

Change Request Report (Option 8.8)

The Change Request Report option can generate a complete or partial report for a single change request. The programmer assigned to the change or his manager can request this report. Depending on site option, the control group or anyone can generate the report.

```
COMMAND ==>
REQUEST ID ==> WO.....
REPORT TYPE ==> DESC ( )  ACTIVITY ( )  CLOSE ( )  FULL ( )
REPORT STATUS ==> VIEW ( )  PRINT ( )
PRINT DEST ==>          COPIES ==>
```

Enter the change request number (either *WOnnnnnn* or *n*, where *n* is the numeric portion of the request ID) and select one of the following report types:

REPORT TYPE

Four reports types are available. Place an X next to the type.

DESC

Displays information about the change request, the requestor who opened the request, and the manager who assigned the request.

ACTIVITY

Displays the logout, login, system link/bind requests, and batch activity records for the specified change request.

CLOSE

Displays the change request closing documentation entered by the programmer who closed the request (if available).

FULL

Displays all of the information available for the change request.

Sample Change Request Reports appear in the following figures.

Change Request Report

LIB/CCF CHANGE REQUEST REPORT - W0000001

REQUESTOR: Bob Jones PHONE: Ext. 4038
MANAGER: Tom Smith DEPARTMENT: Distribution
COORDINATOR: Gail Johnson PHONE: Ext. 4056
APPL/SYSTEM: OEX DISTRIBUTION TYPE: MODIFICATION
OPENED: 08/23/03 13.10.31 STATUS: CLOSED 08/26/03
BY BAKER

DESCRIPTION: When an invalid shipping code is entered on
panel OEX120 and message 'nnnn IS NOT A VALID
SHIP CODE', provide an option to display a
list of valid codes.

MGR COMMENT: Branch to the SHIP/TRAN subsystem in order to
obtain the list of codes. Provide return to
OEX120.

Change Request Activity Report

LIB/CCF CHANGE REQUEST ACTIVITY REPORT

CR W0000001

PGMR: BAKER

MODULE LOGOUT REQUESTS:

OEX530 CR: W0000001 LOGOUT STAMP: 08/24/03 09:15:32
PROD MASTER: LIBR.PROD.MAST
TEST MASTER: LIBR.TEST.MAST
VERS=*NEW*

MODULE LOGIN REQUESTS:

OEX530 CR: W0000001 LOGOUT STAMP: 08/24/03 09:15:32
PROD MASTER: LIBR.PROD.MAST
LOGIN STAMP: 08/25/03 13:48:00
VERS=*NEW*

PROCESSED MOVEMENT REQUESTS:

OEX530 CR: W0000001 TO: PROD DATE: 08/25/03 15:56:31
FROM MASTER: LIBR.PROD.MAST
TO MASTER: LIBR.TEST.MAST
VERS=*NEW*

REJECTED LOGIN/LOGOUT REQUESTS:

NONE

DELETED LOGOUT REQUESTS:

NONE

SYSTEM LINK REQUESTS:

W0000001 LKED SYSIN MEMBER: OEXLINK OPTS: 001101
PROD MASTER: LIBR.PROD.MAST
LKED: 08/25/03 16.42.57 FILEID: 001

PROCESSED SYSTEM LINK REQUESTS:

W0000001 LKED SYSIN MEMBER: OEXLINK OPTS: 001101
PROD MASTER: LIBR.PROD.MAST
LKED: 08/25/96 17.03.31 FILEID: 001

REJECTED SYSTEM LINK REQUESTS:

NONE

RESUBMITTED BATCH ACTIVITY:

NONE

COMPLETED BATCH ACTIVITY:

BAKERA J03092 CR: W0000001 DATE: 08/25/03 15.56.32
PROD MASTER: LIBR.PROD.MAST
MODULE NAME: OEX120 TYPE: MOVE Y0404925 W0000001
VERS=*NEW*

BAKERB J04831 CR: W0000001 DATE: 08/25/03 17.03.32
PROD MASTER: LIBR.PROD.MAST

MODULE NAME: OEXLINK TYPE: LKED Y9603455 W0000001

Change Request Close Report

LIB/CCF CHANGE REQUEST CLOSE REPORT

CHANGE REQUEST ID: W0000001 TYPE: CLOSED

ANALYSIS:

Panel OEX120 has been modified to indicate that PF7 provides a list of valid ship codes. A new program, OEX530 browses the ST1100 database, builds the list, and provides a cursor select function to insert the desired ship code into the 'SHIP TO:' field upon return to OEX120.

ROUTINES AFFECTED:

OEX/TS0 and OEX/CICS

SYSTEMS TESTS MODIFIED ON: 8/25/03

SYSTEMS TESTS VERIFIED ON: 8/25/03

SYSTEMS TESTS ADDED OR MOD:

OEXST120 modified to test PF7.
OEXST530 added.

NEW USER INPUT:

None.

NEW USER OUTPUT:

None.

DOCUMENTATION CHANGES

None.

Update OEX User Guide to indicate that PF7 from panel OEX120 now provides a list of valid ship codes.
CLOSED: 08/26/03 14.00.19

LCDF (Option 8.9)

The Library Chain Definition Function is restricted to the LIB/CCF Administrator.

DB2 for z/OS and OS/390 Reports (Option 8.10 for z/OS and OS/390 Only)

If your site uses LIB/CCF to manage DB2 for z/OS and OS/390 source and your LIB/CCF Administrator implemented the DB2 for z/OS and OS/390 reporting facility, several reports are available from Option 8.10 (DB2 REPORTS). They are listed following. Reports are generated against the DB2 for z/OS and OS/390 subsystem specified in Option 0 (CCF PARMS).

- Plan Cross-Reference report. Requires a DB2 for z/OS and OS/390 plan name and produces a report of all the source members and corresponding DBRMs and packages included in that plan.
- Source Cross-Reference report. Requires an AllFusion CA-Librarian source member name and produces a report of all the plans and packages where the source member is used.
- Application Cross-Reference report. Requires a LIB/CCF application name and produces a report of all the plans and packages included in that application.
- Change Request Audit report. Requires a change request number and produces a report of all of the plans, source members, and DBRMs and packages associated with that change request.
- DBRM Exception report. Requires a DBRM library name and produces a report of all the DBRMs that have no corresponding source member entry in the CALIBCCF.LIBCCFTA table.

Each of the Option 8.10 DB2 Reports display the following panel:

```

FRI 08/25/03 ----- Field one ----- 16.47.00
COMMAND ==>
REPORT STATUS ==> VIEW( )      PRINT( )
Field two ==>
PRINT DEST ==>      COPIES ==>
  
```

Fields one and two in the above display contain variable data. Field one of each panel is the report name that you selected from Option 8.10. Field two of each panel is one of the following, depending on the report you chose:

PLAN

Enter the PLAN name that you want to cross reference.

SOURCE

Enter the AllFusion CA-Librarian source member that you want to cross-reference.

APPLICATION

Enter the LIB/CCF application that you want to cross-reference.

CHANGE REQUEST

Enter the change request number that you want to report on. Specify either the complete change request number in *WOnnnnnn* format or simply provide the numeric portion of the change request without the leading zeros (that is, *nnn*).

DBRM LIBRARY

Enter the DBRM library name. The DBRMs in that library with no corresponding source entry are listed.

The following are sample reports from Option 8.10 (DB2 REPORTS). The report fields are documented after the sample reports.

TUE 08/29/03	LIB/CCF DB2	13.18.17
PLAN CROSS REFERENCE		
PLAN: CCFPLAN1 CREATOR: SMITH01 BIND TIME STAMP: 2003-08-28.11.30.44.34		
DBRM	DBRM TIME STAMP	DBRM LIBRARY
SOURCE	SOURCE TIME STAMP	LIBRARIAN MASTER

\$CCFB105	2003-08-25.10.26.50.05	LIBR.PROD.DBRMLIB
\$CCFB105	2003-08-25-10.13.56.00	LIBR.PROD.MAST
\$CCFS101	2003-08-28.11.25.52.29	LIBR.PROD.DBRMLIB
PACKAGE	PRECOMPILE TIME	COLLECTION LOCATION
SOURCE	SOURCE TIME STAMP	LIBRARIAN MASTER

\$CCFB108	2003-08-25.10.26.50.05	LIBR1 LOCAL
\$CCFB108	2003-08-25-10.13.56.00	LIBR.PROD.MAST
<< NO LIBRARIAN INFORMATION >>		

The message NO LIBRARIAN INFORMATION indicates that there is no entry for this DBRM in the CALIBCCF.LIBCCFTA table.

TUE 08/29/03 LIB/CCF DB2 13.33.32

SOURCE CROSS REFERENCE

SOURCE NAME : \$CCFDBPG
TIME STAMP : 2003-08-25-08.58.03
LIBRARY : LIBR.PROD.MAST
CCF APPLICATION: ACCOUNTING

PLAN PACKAGE	BIND TIME STAMP PRECOMPILE TIME	CREATOR COLLECTION	LOCATION
-----------------	------------------------------------	-----------------------	----------

<<< SOURCE NOT USED IN ANY PLAN >>>

<<< SOURCE NOT USED IN ANY PACKAGE >>>

SOURCE NAME : \$CCFDBPG
TIME STAMP : 2003-08-25-10.13.56
LIBRARY : LIBR.PROD.MAST
CCF APPLICATION: PAYROLL

PLAN PACKAGE	BIND TIME STAMP PRECOMPILE TIME	CREATOR COLLECTION	LOCATION
-----------------	------------------------------------	-----------------------	----------

CCFPLAN1 2003.08.28 11.30.44 SMITH01

CCFPACK 2003.09.28 11.31.44 LIBR1 LOCAL

CCFPLAN2 2003.08.25 11.01.17 SMITH01

<<< SOURCE NOT USED IN ANY PACKAGE >>>

CCFPLAN3 2003.08.25 10.28.17 SMITH01

<<< SOURCE NOT USED IN ANY PACKAGE >>>

The message SOURCE NOT USED IN ANY PLAN (or PACKAGE) indicates that this archive version of the AllFusion CA-Librarian source member is not used in any plan.

TUE 08/29/03		LIB/CCF DB2		09.50.13	
APPLICATION CROSS REFERENCE					
CCF APPLICATION: ACCOUNTING					
PLAN	BIND TIME STAMP	CREATOR			
DBRM	DBRM TIME STAMP	SOURCE	SOURCE TIME STAMP		
PACKAGE	PRECOMPILE TIME	SOURCE	SOURCE TIME STAMP	COLLECTION	

CCFPLAN1	2003-08-28.11.30.44	SMITH01			
\$CCFB105	2003-08-25.10.26.50	\$CCFB105	2003-08-25-10.13.5	LIBR1	
\$CCFS104	2003-08-28.09.45.20	<< NO LIBRARIAN INFORMATION >>			
CCFPLAN2	2003-08-25.11.01.17	SMITH01			
\$CCFB105	2003-08-25.10.26.50	\$CCFB105	2003-08-25-10.13.5		
\$CCFS103	2003-08-25.10.40.33	<< NO LIBRARIAN INFORMATION >>			
CCFPLAN3	2003-08-25.10.28.17	SMITH01			
\$CCFB105	2003-08-25.10.26.50	\$CCFB105	2003-08-25-10.13.5		
REPORT COMPLETE. AT LEAST ONE SOURCE MODULE NOT FOUND.					

The message NO LIBRARIAN INFORMATION indicates that this DBRM has no corresponding source member entry in the CALIBCCF.LIBCCFTA table.

WED 08/30/03		LIB/CCF DB2		09.50.13	
CHANGE REQUEST REPORT					
CHANGE REQUEST: W0000033					
SOURCE	SOURCE TIME STAMP	LIBRARIAN MASTER			
DBRM	DBRM TIME STAMP	DBRM LIBRARY			
PACKAGE	PRECOMPILE TIME	COLLECTION		LOCATION	
PLAN	BIND TIME STAMP	CREATOR			

\$CCFB105	2003-08-25-10.13.56	LIBR.PROD.MAST			
\$CCFB105	2003-08-25-10.26.50	LIBR.PROD.DBRMLIB			
CCFPLAN1	2003-08-28-11.30.44	SMITH01			
CCFPACK1	2003-08-25-11.01.17	LIBR1		LOCAL	
\$CCFS101	2003-08-24-16.05.14	LIBR.PROD.MAST			
<< SOURCE NOT USED IN ANY ACTIVE PLAN >>					
REPORT COMPLETE.					

The message SOURCE NOT USED IN ANY ACTIVE PLAN indicates that this DBRM was not used in any plan.

TUE 08/29/03	LIB/CCF DB2	13.58.24
--------------	-------------	----------

DBRM EXCEPTION REPORT

DBRM: LIBR.PROD.DBRMLIB

DBRM	DBRM TIME STAMP
-----	-----
DCCFB105	2003-08-25-10.26.50
DCCFS101	2003-08-25-10.38.20
DCCFS103	2003-08-25-10.40.33
DCCFS104	2003-08-30-12.53.05
DCCFB105	2003-08-30-08.38.35
DSNTIAUL	2003-08-30-09.44.01

REPORT COMPLETE. AT LEAST ONE SOURCE MODULE NOT FOUND.

Report Fields

The report fields are alphabetically listed and described following:

BIND TIME STAMP

The date and time that the PLAN was created.

CCF APPLICATION

The LIB/CCF application under which the change request was opened.

CHANGE REQUEST

The change request number for which the report was requested.

COLLECTION

The name of the collection associated with the package.

CREATOR

The user ID that performed the bind that produced the plan.

DBRM

The DBRM name.

DBRM LIBRARY

The data set name of the DBRM library.

DBRM TIME STAMP

The date and time that the DBRM was created.

LIBRARIAN MASTER

The data set name of the CA Librarian master file. This is generally the production master file name. However, if you perform the pre-compile/compile process from a QA master file, the QA master file data set name displays.

LOCATION

The location of the DBMS where the package was bound.

PACKAGE

The name of the package.

PLAN

The plan name.

PRECOMPILE TIME

The date/time stamp DB2 for z/OS and OS/390 generated at precompile time.

SOURCE

The name of the CA Librarian source member.

SOURCE TIME STAMP

The version date and time of the CA Librarian source member at the time the pre-compile was performed.

Glossary

application

An *application* is a user-defined name used to refer collectively to any group of programs performing related functions. Authorized User Key Definition Table defining to LIB/CCF the application users who can initiate change requests and the applications for which they can initiate requests.

backup load library

A *backup load library* is an optional library where executable production programs can be backed up before a new program is link edited. There must be one for each production library to back up.

CA Librarian

CA Librarian is a ,CA Technologies library management system. This system consists of a specially formatted, self-reorganizing library and the batch utility programs and online interfaces that access it.

CA Librarian Change Control Facility (LIB/CCF)

The *CA Librarian Change Control Facility (LIB/CCF)* is an interactive dialog-based application that provides CA Librarian users with a comprehensive application change control methodology. It includes complete tracking, reporting, and control of the program development and maintenance process in online environments.

CA Roscoe key conversion table

[set the rie variable for your book] key conversion table defines LIB/CCF users' [set the rie variable for your book] keys and the corresponding LIB/CCF keys to the LIB/CCF-[set the rie variable for your book] system.

CA Vollie OPNAME conversion table

CA Vollie OPNAME conversion table defines LIB/CCF users' CICS operator names and the corresponding CCF ID.

CCF administrator

A *CCF administrator* is an individual designated by site management as having responsibility for implementing LIB/CCF and maintaining its associated tables. This person establishes the LIB/CCF system profile, defines the users of the system, and establishes their authority to exercise specific LIB/CCF functions.

change request

A *change request* is a request for a modification or problem resolution. The change request is used as an anchor point for all LIB/CCF functions.

change request ID

A *change request ID* is a change request number.

Close function

Close function removes a change request from the list of active or open requests.

CMS userid conversion table

The *CMS userid conversion table* defines LIB/CCF users' VM/ESA user IDs and the corresponding LIB/CCF keys to the LIB/CCF system.

control group

A *control group* contains the user IDs, defined by the LIB/CCF system administrator, responsible for processing programmer requests (logout, login, link, and DB2 bind requests). Additionally, the control group can be responsible for processing job submission records (JSRs).

History master file definition table

A *History master file definition table* defines to LIB/CCF the History master file associated with each Production master file.

History member

A *History member* is a member on the History master file that contains a cumulative narrative describing all changes ever made to the corresponding source module in the production master file.

job submission record (JSR)

A *job submission record (JSR)* is a record created when a batch job is submitted to perform a login, logout, link-edit, or DB2 bind of a module.

Jump command

The *Jump command* is a command consisting of an equal sign and panel number (=n) that lets the online user display another panel without passing through a hierarchy.

LANGUAGE definition table

The *LANGUAGE definition table* is a table of LIB/CCF language names and the JCL members set up to compile programs written in the corresponding programming language.

LIB/CCF system master

LIB/CCF system master is a CA Librarian master file designated as the repository of LIB/CCF system information. This information includes all change requests, member tracking information, and general system status information.

library chain

A *library chain* is a group of CA Librarian master files that define a promotion path for a member. A library chain consists of at least a Production and Test master file and can include any number of intermediate (QA or Reject) master files.

Library Chain Definition function (LCDF)

Library Chain Definition Function (LCDF) is a LIB/CCF administrator function for defining Production, Test, and intermediate (QA and Reject) master files, their associated libraries (object, load, history), and other related information.

library definition record (LDR)

A *library definition record (LDR)* is a record created for each master file or operating system library defined by the administrator with LCDF. An LDR contains all information needed by LIB/CCF to access the file, such as data set name, VM/ESA link options, master file type, and so on.

Link function

The *Link function* initiates the process of link editing a member that was updated and returned to the production master file.

Login function

The *Login function* is a LIB/CCF function that processes a request to move a copy of a new or changed program back into production. The login can be processed directly or proceed in steps that involve movement of the program to an intermediate library for quality assurance purposes.

Logout function

The *Logout function* is a LIB/CCF function that processes a request to move a copy of a production program to a designated test library so that changes can be made to it in response to a change request.

logout stamp

A *logout stamp* indicates the date and time of the logout.

master file definition table

A *master file definition table* defines the production master file to the LIB/CCF system.

model system

A *model system* is a generalized LIB/CCF system supplied by CA, tailored to no particular site.

module movement record (MMR)

A *module movement record (MMR)* is a record created by LIB/CCF for use by the control group to manage requests from programmers to transfer a member.

module tracking record (MTR)

A *module tracking record (MTR)* is a record created by LIB/CCF when a member is logged out of the production environment to the test environment.

production link request

A *production link request* is a request to link edit a member in a production master file.

production master file

A *production master file* is a CA Librarian master file defined to LIB/CCF as a repository of production source code. When a change is required to a production program, a request is made to LIB/CCF to move a copy of that member to the development environment.

production object library

A *production object library* is a library that is the target of production compiles or where the test object member is copied if a TEST OBJECT is specified; the library where the object members are link edited.

programmer definition table

A *programmer definition table* defines programmers to the LIB/CCF system.

programming managers definition table

A *programming managers definition table* defines programming managers to the LIB/CCF system.

system link request (SLR)

A *system link request (SLR)* is a LIB/CCF function that relinks an entire system or subsystem after one of its parts is changed. A link request can only be processed after login is completed successfully.

test master file

A *test master file* is a CA Librarian master file defined to LIB/CCF as the library where copies of production programs reside during the development phase.

test object/relocatable

A *test object/relocatable* is an optional object code representing the output from the most recent compile of the test member being logged in can be copied from this library into the production object library.

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