Advantage™ VISION:Inform®

Definition Processor Reference Guide

4.0

Computer Associates®

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Chapter

1 The Definition Processor

The *Advantage™ Vision:Inform® Definition Processor Reference Guide* explains how to create and maintain VISION:Inform data definitions and procedures using the Definition Processor. The Definition Processor is the interactive, ISPF-based development facility provided with VISION:Inform. This book assumes that the reader is already familiar with the ISPF environment.

This chapter describes how the Definition Processor fits into the VISION:Inform environment, then provides an overview of the Definition Processor, highlighting a few of its many powerful and unique features.

The sample file definition creation shows you how easy it is to create VISION:Inform definitions with the Definition Processor.

VISION:Inform and the Data Extraction Process

VISION:Inform is a powerful, intelligent data extraction product that provides workstation users with access to legacy data stored on your IBM® host system.

Intelligent extraction means that VISION:Inform does more than download data.

- VISION:Inform automatically synchronizes, matches, transforms, filters, and summarizes data as well.
- VISION:Inform leverages both the computational power of the host and the user friendly environment of the workstation by completing the work on the platform that is best suited to the type of processing being performed.

The VISION:Inform system is composed of individual components that work together to create a comprehensive data retrieval environment. For additional information on these components, see the *Advantage VISION:Inform System Administrator Guide* and *Advantage VISION:Inform Concepts Guide*.

The implementation of this comprehensive data retrieval environment starts with the Definition Processor and the creation of VISION:Inform data definitions and procedures.

Figure 1-1 provides a conceptual overview of the Definition Processor and related components in the VISION:Inform environment.

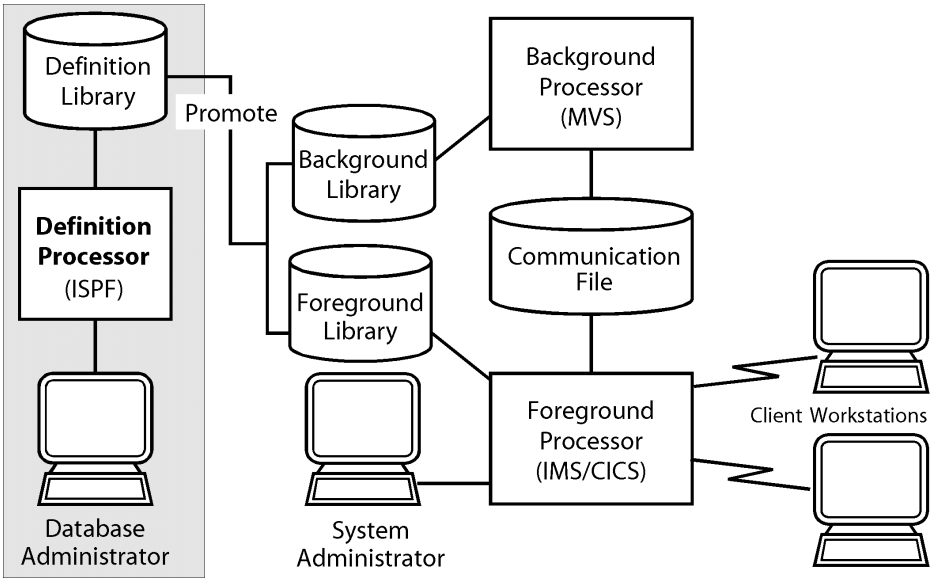

Figure 1-1 The Definition Processor and the VISION:Inform Environment

Types of Definitions

The four different types of definitions, or objects, used by VISION:Inform during the data extraction process are:

- Table definitions
- File definitions
- Logical data view definitions
- Procedures

Table Definitions

The VISION:Inform automatic table lookup feature uses table definitions to automatically replace short data codes with descriptive literals or phrases during the data extraction process.

File Definitions

File definitions provide VISION:Inform with a logical view of your physical data files. VISION:Inform performs the physical data retrieval process based on the information supplied in the VISION:Inform file definitions. File definitions not only map the physical layout of the data into new logical structures, but also map and preserve the relationships that exist within the data.

Logical Data View Definitions

Logical data view definitions enable VISION:Inform to access different databases simultaneously. You create a logical data view to view the data in a way that is meaningful to your application (which is not necessarily the way the data is physically organized). Think of the logical data view as an extension of the DB2® join capability. It provides you the means to join separate physical data files of any type, including DB2 tables, in the same way that DB2 provides you the means to join separate DB2 tables.

Procedures

You use procedures to tie additional, automatic, procedural processing to the data extraction process. For instance, you can use procedures to automatically perform data transformations, such as converting measurements in inches to their metric counterparts, during the data extraction process.

Creating Definitions

You create each of these definition types in a structured, interactive environment with the Definition Processor. Simply complete the data entry fields that appear on a predefined series of panels. Each series of panels is specifically tailored to the type of definition being created.

Storing Definitions

Once you create a VISION:Inform definition using the Definition Processor, you store it in the central, open architecture, VISION:Inform source repository called the definition library. This means that individual definitions can be shared by multiple data extraction applications. Storing definitions means that individual definitions, such as file definitions, can be used in forming composite definitions, such as logical data views.

Promoting Definitions

Once you complete a definition, you make it available to VISION:Inform for data extraction processing by running the Promote process (execute the Promote Process Utility). The Promote process compiles your VISION:Inform data definitions into an executable format and then stores them on the VISION:Inform background and foreground libraries.

Storing your definitions in separate foreground and background libraries means that VISION:Inform stores the definitions in a format that is optimized for the type of processing being performed. This enables VISION:Inform to process your data retrieval requests more efficiently.

Making Data Retrieval Requests

Once you promote the appropriate data definitions from the definition library to the foreground and background libraries, you can start making data retrieval requests.

The Foreground Processor receives data retrieval requests from the client software and routes requests to the appropriate Background Processor by means of the communication file. When the Background Processor completes the data retrieval request, it stores the output on the communication file where the Foreground Processor retrieves the output and returns it to the client software.

A Definition Example

This section provides you with a brief introduction to the Definition Processor by creating a sample file definition.

- The example does not attempt to teach you all of the codes and commands that are available when using ISPF and the Definition Processor.
- Subsequent chapters describe each of the subsystems and commands.
- For information about the extensive Help system see Using Interactive Help Facilities.

The Definition Processor provides a straight-forward way of creating file definitions. VISION:Inform supports the processing of complex hierarchical files or interrelated DB2 tables composed of an extensive number of fields with different formats.

In the example, we create a simple KSDS VSAM file called EMPLOYEE. Only those panels most relevant to creating a file definition are shown.

To define this file definition, the basic steps are:

1. Identify the file type.
2. Describe the structure of the file.
3. Provide field information.

The following figure shows how to specify the file type.

```
FILETYPS ----- ISPJJK1.INFORM.DEFLIB(EMPLOYEE) -------------------------------
OPTION ===> 2
FILE EMPLOYEE RETRIEVED FROM ISPJJK1.INFORM.DEFLIB

                  0   COMMENTS   - Document File Definition

                  1   RELATIONAL - DB2 Or SQL Accessed Tables

                  2   KSDS       - VSAM Key Sequenced Data Set
                  3   ESDS       - VSAM Entry Sequenced Data Set
                  4   AIX        - VSAM Alternate Index Data Set

                  5   DLI        - DL/I Data Base
                  6   DLIHDAM    - HDAM DL/I Data Base

                  7   ISAMFIX    - Fixed Length ISAM File
                  8   ISAMVAR    - Variable Length ISAM File

                  9   FIXED      - Fixed Length File
                 10   VARIABLE   - Variable Length File
                 11   UNDEFINED  - Undefined (unformatted) File

                 12   GDBI       - Generalize Database Interface
```

Figure 1-2 Identifying the File Type

On this panel, any one of 12 file types are available. For the first step of this example, we identify the file type by selecting Option 2 (KSDS) to create a VSAM key sequenced data set.

The next panel is the File Definition Segments panel (also referred to as the Segments panel), which enables us to perform the second step and define the structure of the file. This panel is illustrated in Figure 1-3.

```
FILSEGVS --- ISPPJK1.INFORM.DEFLIB(EMPLOYEE) ---------------------- ROW 1 OF 12
COMMAND ===>                                                  SCROLL ===> CSR

                          VSAM KSDS FILE DEFINITION: EMPLOYEE

      Buffer Size ===> 80
      Updater Id  ===> MYFILE         Expiration Date ===> 12 / 31 / 09

Line       Segment      Segment       Segment      Segment      Num Of Fixed
Cmd         Name         Level        Number       Order       Occurrences
S...       EMPLOYEE       1            001          A
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
....       ________       _            ___          _             ___
****************************** BOTTOM OF DATA ********************************
```

Figure 1-3 Defining the File Structure

You use the Segments panel to:

- Define the structure and organization of a file.
- Provide VISION:Inform with general file processing information.

You specify general file processing information by completing the top part of the Segments panel. In the case of the example VSAM file, the only information you need to specify is the buffer size. This entry tells VISION:Inform what size buffer is needed to process the EMPLOYEE file.

The structure of the EMPLOYEE file is defined by creating file segment entries on the lower, scrollable portion of the Segments panel.

- You can create very complex file structures with a maximum of nine hierarchical levels and maximum of 255 different segments with the Definition Processor panels.
- When working with DB2, you can join relational tables and views in a virtually unlimited number of ways to create custom DB2 file definitions.

Since we are defining a flat VSAM file, we only need to define one segment entry. We have named this segment EMPLOYEE.

The second step of the file definition process is now complete.

For the third step of providing field information, use the Select line command to select the EMPLOYEE segment for further processing. Enter **S** (Select) in the Line Cmd column (Figure 1-3) adjacent to the segment entry (EMPLOYEE) to display the Field Definition panel (Figure 1-4).

```
FILNPL0V --- ISPPJK1.INFORM.DEFLIB(EMPLOYEE) ---------------------- ROW 1 OF 7
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                     FILE: EMPLOYEE    SEGMENT: EMPLOYEE

                                                                        Seg  Seg No
Line  Primary   Alternate                        ... Field ...   Dec    Key  Count
Cmd   Fld Name  Field Name                       Len  Loc  Typ   Plc    Num  Field
....  EMPNUM    ______________________________   8    1     C          1    ___
....  EMPNAME   ______________________________   20   9     C    __    _    ___
....  EMPTITLE  ______________________________   20   29    C    __    _    ___
....  EMPSAL    ______________________________   6    49    Z    __    _    ___
....  EMPSEX    ______________________________   1    55    C    __    _    ___
....  EMPAGE    ______________________________   2    56    C    __    _    ___
....  EMPFIL    ______________________________   23   58    C    __    _    ___

****************************** BOTTOM OF DATA ******************************
```

Figure 1-4 Defining the Fields

Figure 1-4 shows the Fields Definitions panel (also referred to as the Fields panel). Use the Fields panel to define individual data fields for the selected segment. In this sample EMPLOYEE file definition, we defined seven fields for the EMPLOYEE segment.

These three simple steps create a file definition for a KSDS VSAM file.

All other VISION:Inform definition types are created in a similar manner by simply completing the data entry panels that the Definition Processor automatically displays.

Definition Processor Architecture

As you can see from the Definition Processor Main Menu shown in Figure 1-5, the Definition Processor is made up of the following separate subsystems:

- The Parameters Subsystem
- The Import Subsystem
- Other
- The Edit Subsystem
- The Utilities Subsystem

```
PRIMMENU ----------- VISION:Inform DEFINITION PROCESSOR FACILITY -------------
OPTION ===>

Parameters ---> 10  PARAMETERS - Specify Session Parameters
Subsystem
Import     ---> 19  IMPORT     - Import File Definitions from External Sources
Subsystem
                20  TABLE      - Create Table Definitions
Edit       ---> 21  FILE       - Create File Definitions
Subsystem       22  LDV        - Create Logical Data View Definitions
                23  PROCEDURE  - Create Procedures


Utilities  ---> 30  DISPLAY    - Review Definitions in Background Library
Subsystem       31  PROMOTE    - Maintain Background and Foreground Libraries


                99  Requests   - Create Requests

Other      --->  T  TUTORIAL   - View Definition Processor Tutorial
                 X  EXIT       - Exit Definition Processor

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```

Figure 1-5 Definition Processor Subsystems

Note:

- You can select each of these subsystems from the Definition Processor Main Menu by entering the appropriate option number in the Command area—that is, you enter an option number after OPTION ===>.
- The chapters and sections in this manual are in the same order as the Definition Processor Main Menu.

The following sections provide a brief overview of each of these subsystems. You can find more detailed information on these subsystems in subsequent chapters.

The Parameters Subsystem

Select the Definition Processor Parameters subsystem by choosing Option 10 (Parameters) from the Definition Processor Main Menu.

This subsystem contains options for:

- Customizing your Definition Processor session.
- Providing default processing information for your Definition Processor list data set.
- Reviewing the system modifications that are currently applied to your Definition Processor software. System modifications indicate your maintenance level.

The Import Subsystem

Select the Import subsystem by choosing Option 19 (Import) from the Definition Processor Main Menu. The Import option provides an automated interactive process to help in the conversion of external data definitions into the format used by VISION:Inform. You can build VISION:Inform file definitions that are in other formats by using the Import option dialogs and the Quick Start utilities.

The Import option and the Quick Start utilities are a starting point in the preparation of file definitions for use with VISION:Inform. After a Quick Start utility processes a file definition, you can further customize the file definition with the Definition Processor Main Menu Option 21 (File).

The Edit Subsystem

The Definition Processor Edit subsystem is the heart of Definition Processor. Use the Definition Processor to create and maintain all your VISION:Inform definitions.

Select the Edit subsystem by choosing one of the following options from the Definition Processor Main Menu:

- Option 20 (Table) — To create or modify table definitions.
- Option 21(File) — To create or modify file definitions.
- Option 22 (LDV) — To create or modify logical data view definitions.
- Option 23 (Procedure) — To create or modify procedures.

For information about the Definition Processor edit subsystem, see Chapter 5, *The Edit Subsystem*.

The Utilities Subsystem

The Definition Processor Utilities subsystem provides an interactive environment for maintaining your promoted VISION:Inform definitions.

- Use the Utilities subsysem to display and print index listings of your VISION:Inform background and foreground libraries. To display and print, select Option 30 (Display) from the Definition Processor Main Menu. All requested output, such as index listings, goes to your Definition Processor list data set.
- Use the Utilities subsystem to promote definitions from the definition library to the background and foreground libraries, and to delete items.

  To maintain the libraries, select the Definition Processor Main Menu Option 31 (Promote).

Note: When you use the Utilities subsystem D (delete) option, definitions are deleted from the background library immediately. Definitions in the foreground library are not deleted until the next promote is performed.

Definition Processor Panels

All Definition Processor panels are similar to standard ISPF panels. Because of this, users who are already familiar with ISPF will find the Definition Processor easy to use. Like ISPF, the Definition Processor uses two basic types of panels: menu panels and data entry panels.

Menu Panels

Note: The text uses the term Command area to refer to the field following:

COMMAND ===>
Command ===>
OPTION ===>

Use menu panels to choose a specific path or function by selecting from a list of displayed options. Select a menu option by entering its corresponding option number in the Command area, located at the top of the panel.

The following figure shows a typical Definition Processor menu panel.

```
LDVMENU ----- ISPPJK1.INFORM.DEFLIB(SAMPLE) --------------------------------
OPTION ===>


                    LOGICAL DATA VIEW DEFINITION: SAMPLE


          1   COMMENTS   - Document Logical Dataview

          2   FILES      - Specify Files To Be Logically Joined

          3   PROCEDURES - Specify Procedures (and/or requests) To Be Invoked
```

Figure 1-6 Typical Definition Processor Menu Panel

Data Entry Panels

The following figure shows the typical format of a Definition Processor data entry panel. This figure serves as a general example. It is not an exact model of all Definition Processor panels.

If you are familiar with ISPF, you will notice that this format is very similar to the standard ISPF panel format.

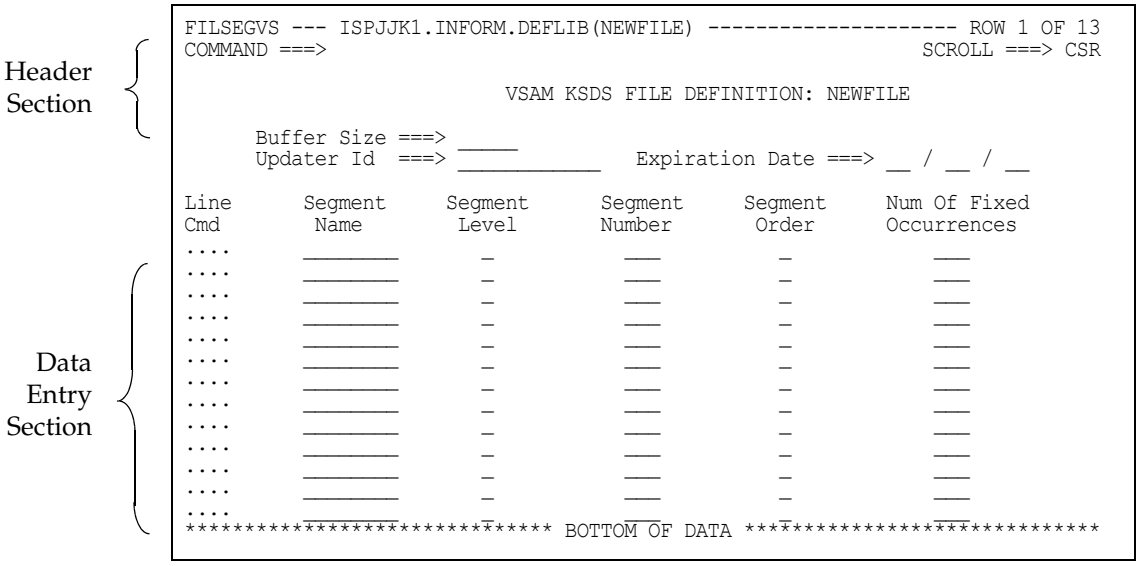

Figure 1-7 Typical Definition Processor Panel

Header Section

The first section of a Definition Processor panel is called the header section. The header section consists of the following three lines:

Title line	Provides panel identification information.
Command line	Where you enter menu selections or primary commands.
Message line	Displays informational messages about the function you are currently performing.

All of the Definition Processor panels contain a header section.

Data Entry Section

The remaining two sections, shown in Figure 1-7, comprise the data entry areas of a panel. The Definition Processor contains the following types of data entry areas:

Fixed data entry area	The fixed data entry area contains entries that occur only once. These fields usually contain summary information from the previous panel (also known as the parent panel) in the hierarchy.
Scrollable data entry area	In contrast to the fixed data entry area, the scrollable data entry area contains multiple data rows that pertain to the current panel. ■ When entering information in scrollable data areas, use the UP and DOWN primary commands to page through the multiply occurring rows of data. ■ Use the LEFT and RIGHT primary commands to display scrollable areas that are wider than your terminal.

Not all panels contain both a fixed data entry area and a scrollable data entry area. Some panels contain only a fixed data area, while other panels contain two scrollable data areas but no fixed data area.

Panel Name

For ease of reference, all Definition Processor data entry panels have a unique panel name which appears in the left corner of the panel title line as shown below.

```
PRIMOPT ------------------------------------------------------------
COMMAND ===>
```

Panel Name

Panel names are generally eight characters long. The panel name consists of a prefix (usually four characters), followed by a suffix (one to four characters), which makes up the remainder of the name.

Panel Name Prefix

Figure 1-8 lists all of the panel name prefixes that are used by the Definition Processor. Notice how each of these prefixes identifies the particular subsystem to which the panel belongs.

Panel Name Suffix

The remaining portion of the panel name, called the suffix, uniquely identifies a specific panel within a Definition Processor subsystem. The suffix usually represents the specific function that the panel performs within the subsystem.

Panel Name Prefix	Description
PRIM	Main Menu
PARM	Parameters subsystem
M9IM	Import subsystem
M9JK	Utilities subsystem
VAL	Validation subsystem
SAVE	Save subsystem
FIL	File Definition subsystem
LDV	Logical Data View subsystem
TBL	Table Definition subsystem
ASL	Procedure Definition subsystem

Figure 1-8 Panel Name Prefixes

Navigation Through the Definition Processor

The Definition Processor looks and functions in a manner very similar to ISPF. Because of this, users that are familiar with ISPF will find the Definition Processor easy to use. Users new to ISPF will quickly learn how easy it is to use the system. The Definition Processor's panel formats, command entry, and interactive Help facility are all patterned after ISPF.

Definition Processor Structured Panel Hierarchy

The only major difference in the way ISPF and the Definition Processor function is in the structured panel hierarchy that the Definition Processor creates and maintains. The VISION:Inform hierarchy means that you can construct your definitions in a structured and organized manner.

- When using the Definition Processor to edit your source, you move down through the panel hierarchy using the Select line command.
- You move back up through the hierarchy using the END primary command.

Figure 1-9 illustrates the concept of panel hierarchies as it applies to the Definition Processor File Definition subsystem. Notice that the entries become more detailed and specific as you travel down the hierarchy.

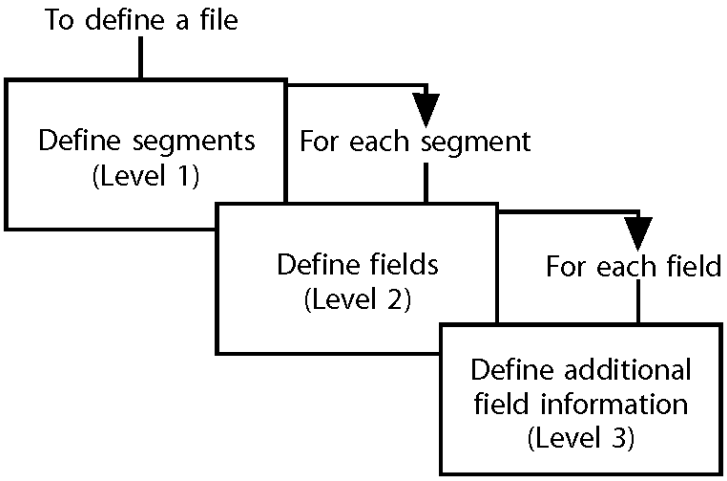

Figure 1-9 File Definition Subsystem Panel Hierarchies

Figure 1-10 shows the actual Definition Processor data entry panels used to implement this part of the File Definition subsystem.

```
FILSEGVS --- ISPJJK1.INFORM.DEFLIB(EMPLOYEE) ----------------------- ROW 1 OF 1
COMMAND ===>                                                     SCROLL ===> CSR

                           VSAM KSDS FILE DEFINITION: EMPLOYEE

      Buffer Size ===> 80
      Updater Id  ===> MYFILE         Expiration Date ===> 12 / 31 / 09

Line       Segment     Segment      Segment     Segment     Num Of Fixed
Cmd         Name        Level        Number      Order      Occurrences
s...       EMPLOYEE       1           001          A           ___
****************************** BOTTOM OF DATA ********************************

FILNPL0V --- ISPJJK1.INFORM.DEFLIB(EMPLOYEE) ----------------------- ROW 1 OF 7
COMMAND ===>                                                     SCROLL ===> CSR

                             FIELD DEFINITIONS FOR
                      FILE: EMPLOYEE SEGMENT: EMPLOYEE

                                                                     Seg  Seg No
Line  Primary   Alternate                       ... Field ...   Dec  Key  Count
Cmd   Fld Name  Field Name                      Len  Loc  Typ   Plc  Num  Field
s...  EMPNUM    ______________________________  8    1    C     __   1    ___
....  EMPNAME   ______________________________  20   9    C     __   _    ___
....  EMPTITLE  ______________________________  20   29   C     __   _    ___
....  EMPSAL    ______________________________  6    49   Z     __   _    ___
....  EMPSEX    ______________________________  1    55   C     __   _    ___
....  EMPAGE    ______________________________  2    56   C     __   _    ___
....  EMPFIL    ______________________________  23   58   C     __   _    ___
****************************** BOTTOM OF DATA ********************************

FILAINFO --- ISPJJK1.INFORM.DEFLIB(EMPLOYEE) ----------------------- ROW 1 OF 9
COMMAND ===>

                ADDITIONAL FIELD INFORMATION FOR FIELD: EMPNUM

         Output Field Length ===> __      Floating Character ===> _
         Fill Character      ===> _       Trailing Character ===> _

Alternate Field Name ===> EMPLOYEE_NUMBER                <=(Long Name)
External  Field Name ===> ____________________________ <===(DB2 Column name or
                                                            IMS DBD Field Name)
Field Description
===> ______________________________________________________________________

Line Cmd      Column Heading Text
 ....          EMPLOYEE
 ....          NUMBER
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
```

Figure 1-10 File Definitions Subsystem Data Entry Panels

As you use the Definition Processor on a regular basis, you eventually will remember the option numbers that you use most often. For instance, you quickly learn that Option 21 means that you can edit a file definition, while Option 20 means that you can edit a table definition.

Command Stacking

Once you are familiar with the various option numbers, you can start taking advantage of command stacking. For instance, if you are in the Main Menu, and you want to change some of your Definition Processor session parameters, you would normally go through the following series of panels.

```
PRIMMENU --------- VISION:Inform DEFINITION PROCESSOR FACILITY----------
OPTION ===> 10

              10  PARAMETERS - Specify Session Parameters

              19  IMPORT     - Import File Definitions from External Sources

              20  TABLE      - Create Table Definitions
              21  FILE       - Create File Definitions
              22  LDV        - Create Logical Data View Definitions
              23  PROCEDURE  - Create Procedures


              30  DISPLAY    - Review Definitions in Background Library
              31  PROMOTE    - Maintain Background and Foreground Libraries


              99  Requests   - Create Requests

               T  TUTORIAL   - View Definition Processor Tutorial
               X  EXIT       - Exit Definition Processor

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```

```
PARMMENU --------------- DEFINITION PROCESSOR PARAMETERS --------------------
OPTION ===> 1



                              SESSION INFORMATION

                  1   SESSION  - Specify Session Parameters

                  2   LISTFILE - Specify List Dataset Parameters


                              SYSTEM INFORMATION

                  3   MAINT    - List Applied System Modifications
```

```
PARMSESS --------------------- SESSION PARAMETERS --------------------------
COMMAND ===>

  Automatic Tab Option             ===> ON     (ON or OFF)

  Line Command Pad Character       ===> .

  Input Field Pad Character        ===> _

  Auto Field Location Calculation? ===> NO     (YES or NO)

  Validation Message Level         ===> 3      (0, 1, 2, 3)

  Utilities Delete Character       ===> D

  Utilities Workarea Size          ===> 256    (number in K, minimum 96)
```

Figure 1-11 Sequential Panel Displays

If you are already familiar with the session parameter option number, you can shorten this process by using command stacking, shown as '10.1' in Figure 1-12.

```
PRIMMENU ---------- VISION:Inform DEFINITION PROCESSOR FACILITY ------------
OPTION ===> 10.1

              10  PARAMETERS - Specify Session Parameters

              19  IMPORT     - Import File Definitions from External Sources

              20  TABLE      - Create Table Definitions
              21  FILE       - Create File Definitions
              22  LDV        - Create Logical Data View Definitions
              23  PROCEDURE  - Create Procedures


              30  DISPLAY    - Review Definitions in Background Library
              31  PROMOTE    - Maintain Background and Foreground Libraries


              99  Requests   - Create Requests

               T  TUTORIAL   - View Definition Processor Tutorial
               X  EXIT       - Exit Definition Processor


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```

```
PARMSESS --------------------- SESSION PARAMETERS ---------------------------
COMMAND ===>


  Automatic Tab Option             ===> ON     (ON or OFF)

  Line Command Pad Character       ===>

  Input Field Pad Character        ===> _

  Auto Field Location Calculation? ===> NO     (YES or NO)

  Validation Message Level         ===> 3      (0, 1, 2, 3)

  Utilities Delete Character       ===> D

  Utilities Workarea Size          ===> 256    (number in K, minimum 96)
```

Figure 1-12 Command Stacking Example

Notice how command stacking enables you to bypass the display of the Parameters subsystem menu and go directly to the Session Parameters panel.

The previous example is a simple one. As you become familiar with the various options within the Definition Processor Edit subsystem, you can use command stacking to a much greater advantage in moving through the panel hierarchy.

Adding Item Name to Command Stack

You can take the Definition Processor command stacking one step further in that you can specify an item name at the end of a command stack, for example, '21 empfile'.

This means that you can bypass the Definition Library Specification panel when retrieving an item for edit.

- When you bypass the Definition Library Specification panel, the Definition Processor automatically pulls the specified item from your default library.
- The default library is the last library that you used on the Definition Library Specification panel.

For example, Figure 1-13 shows the series of panels you would normally see when preparing to edit a file definition.

```
PRIMMENU ----------- VISION:Inform DEFINITION PROCESSOR FACILITY ------------
OPTION ===> 21

              10  PARAMETERS - Specify Session Parameters

              19  IMPORT     - Import File Definitions from External Sources

              20  TABLE      - Create Table Definitions
              21  FILE       - Create File Definitions
              22  LDV        - Create Logical Data View Definitions
              23  PROCEDURE  - Create Procedures


              30  DISPLAY    - Review Definitions in Background Library
              31  PROMOTE    - Maintain Background and Foreground Libraries


              99  Requests   - Create Requests

               T  TUTORIAL   - View Definition Processor Tutorial
               X  EXIT       - Exit Definition Processor


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```

```
FILE ---------------- DEFINITION LIBRARY SPECIFICATION --------------------
COMMAND ===>


ISPF DEFINITION LIBRARY:
   Project  ===> ISPJJK1
   Group    ===> INFORM    ===>           ===>           ===>
   Type     ===> DEFLIB
   Def Name ===> empfile      (leave blank to view member selection list)


OTHER DEFINITION LIBRARY:
   Library Name  ===>
   Volume Serial ===>           (if not cataloged)


Library Password ===>           (if password protected)
```

Figure 1-13 Normal Sequence of File Definitions Panels (Page 1 of 2)

```
FILETYPS ----- ISPJJK1.INFORM.DEFLIB(EMPFILE) -------------------------------
OPTION ===> 2
FILE EMPFILE RETRIEVED FROM ISPJJK1.INFORM.DEFLIB

                 0   COMMENTS    - Document File Definition

                 1   RELATIONAL - DB2 Or SQL Accessed Tables

                 2   KSDS        - VSAM Key Sequenced Data Set
                 3   ESDS        - VSAM Entry Sequenced Data Set
                 4   AIX         - VSAM Alternate Index Data Set

                 5   DLI         - DL/I Data Base
                 6   DLIHDAM     - HDAM DL/I Data Base

                 7   ISAMFIX     - Fixed Length ISAM File
                 8   ISAMVAR     - Variable Length ISAM File

                 9   FIXED       - Fixed Length File
                10   VARIABLE    - Variable Length File
                11   UNDEFINED   - Undefined (unformatted) File

                12   GDBI        - Generalize Database Interface
```

Figure 1-13 Normal Sequence of File Definitions Panels (Page 2 of 2)

Figure 1-14 shows how this process can be shortened by using command stacking with a definition name specification on the end of the command stack. The command stack is '21 emplfile' in the figure.

```
PRIMMENU ----------- VISION:Inform DEFINITION PROCESSOR FACILITY ------------
OPTION ===> 21 empfile

              10  PARAMETERS - Specify Session Parameters

              19  IMPORT     - Import File Definitions from External Source

              20  TABLE      - Create Table Definitions
              21  FILE       - Create File Definitions
              22  LDV        - Create Logical Data View Definitions
              23  PROCEDURE  - Create Procedures


              30  DISPLAY    - Review Definitions in Background Library
              31  PROMOTE    - Maintain Background and Foreground Libraries


              99  Requests   - Create Requests

               T  TUTORIAL   - View Definition Processor Tutorial
               X  EXIT       - Exit Definition Processor


                                        Computer Associates International, Inc.
```

Figure 1-14 Command Stacking Sequence of File Definition Panels (Page 1 of 2)

```
FILETYPS ----- ISPJJK1.INFORM.DEFLIB(EMPFILE) ------------------------------
OPTION ===> 2
FILE EMPFILE RETRIEVED FROM ISPJJK1.INFORM.DEFLIB

                 0   COMMENTS   - Document File Definition

                 1   RELATIONAL - DB2 Or SQL Accessed Tables

                 2   KSDS       - VSAM Key Sequenced Data Set
                 3   ESDS       - VSAM Entry Sequenced Data Set
                 4   AIX        - VSAM Alternate Index Data Set

                 5   DLI        - DL/I Data Base
                 6   DLIHDAM    - HDAM DL/I Data Base

                 7   ISAMFIX    - Fixed Length ISAM File
                 8   ISAMVAR    - Variable Length ISAM File

                 9   FIXED      - Fixed Length File
                10   VARIABLE   - Variable Length File
                11   UNDEFINED  - Undefined (unformatted) File

                12   GDBI       - Generalize Database Interface
```

Figure 1-14 Command Stacking Sequence of File Definition Panels (Page 2 of 2)

Option Jumping

The Definition Processor also supports the jump function. Use the jump function to "jump" from one option number to another option number, without having to return to and re-display the primary menu.

You option jump by placing an equal sign (=) in front of the option number that you want to jump to.

For example, to move from the Utilities subsystem to the Parameters subsystem, use command stacking with option jumping, '=10.1', to go directly from the Display Definitions panel to the Session Parameters panel.

```
M9JK10  ----------  DISPLAY DEFINITIONS in BACKGROUND LIBRARY  ----------------
COMMAND ===> =10.1

Background Library ===> 'INFVSAM1.JJK.INFORM.BGLIB'

To Display a List Of Promoted Definition Names
           and select items to be listed ENTER:

   Blank - Display All Promoted Item Names
   D     - Display Logical Dataview Names
   F     - Display File Definition Names
   Q     - Display Mapping Procedure Group Names
   R     - Display Individual Procedure Names
   T     - Display Table Definition Names

To Print a List Of Promoted Definition Names  ENTER:

   IN - Print a List of All Promoted Item Names
   DN - Print a List of Logical Dataview Names
   FN - Print a List of File Definition Names
   TN - Print a List of Table Definition Names
   PR - Print a list of Procedures and Procedure Group Names
```

Figure 1-15 Using Command Stacking with Option Jumping (Page 1 of 2)

```
PARMSESS -------------------- SESSION PARAMETERS --------------------------
COMMAND ===>


  Automatic Tab Option              ===> ON     (ON or OFF)

  Line Command Pad Character        ===> .

  Input Field Pad Character         ===> _

  Auto Field Location Calculation? ===> NO     (YES or NO)

  Validation Message Level          ===> 3      (0, 1, 2, 3)

  Utilities Delete Character        ===> D

  Utilities Workarea Size           ===> 256    (number in K, minimum 96)
```

Figure 1-15 Using Command Stacking with Option Jumping (Page 2 of 2)

The complete series of screens normally required is shown in Figure 1-16.

```
M9JK10  ----------  DISPLAY DEFINITIONS in BACKGROUND LIBRARY  --------------
COMMAND ===> end

Background Library ===> 'INFVSAM1.JJK.INFORM.BGLIB'

To Display a List Of Promoted Definition Names
           and select items to be listed ENTER:

   Blank - Display All Promoted Item Names
   D     - Display Logical Dataview Names
   F     - Display File Definition Names
   Q     - Display Mapping Procedure Group Names
   R     - Display Individual Procedure Names
   T     - Display Table Definition Names

To Print a List Of Promoted Definition Names  ENTER:

   IN - Print a List of All Promoted Item Names
   DN - Print a List of Logical Dataview Names
   FN - Print a List of File Definition Names
   TN - Print a List of Table Definition Names
   PR - Print a list of Procedures and Procedure Group Names
```

Figure 1-16 Screen Sequence Without Option Jumping (Page 1 of 2)

```
PRIMMENU ----------- VISION:Inform DEFINITION PROCESSOR FACILITY ------------
OPTION ===> 10

              10  PARAMETERS - Specify Session Parameters

              19  IMPORT     - Import File Definitions from External Sources

              20  TABLE      - Create Table Definitions
              21  FILE       - Create File Definitions
              22  LDV        - Create Logical Data View Definitions
              23  PROCEDURE  - Create Procedures


              30  DISPLAY    - Review Definitions in Background Library
              31  PROMOTE    - Maintain Background and Foreground Libraries


              99  Requests   - Create Requests

               T  TUTORIAL   - View Definition Processor Tutorial
               X  EXIT       - Exit Definition Processor

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PARMMENU --------------- DEFINITION PROCESSOR PARAMETERS -------------------
OPTION ===> 1


                                SESSION INFORMATION

                  1   SESSION  - Specify Session Parameters

                  2   LISTFILE - Specify List Dataset Parameters


                                SYSTEM INFORMATION

                  3   MAINT    - List Applied System Modifications



PARMSESS --------------------- SESSION PARAMETERS --------------------------
COMMAND ===>

  Automatic Tab Option             ===> ON     (ON or OFF)

  Line Command Pad Character       ===> .

  Input Field Pad Character        ===> _

  Auto Field Location Calculation? ===> NO     (YES or NO)

  Validation Message Level         ===> 3      (0, 1, 2, 3)

  Utilities Delete Character       ===> D

  Utilities Workarea Size          ===> 256    (number in K, minimum 96)
```

Figure 1-16 Screen Sequence Without Option Jumping (Page 2 of 2)

Multiple Line Command Selections

You can select a single line or multiple lines of data for processing at one time. If you select multiple lines, the Definition Processor automatically processes each selected line in sequence, one after another.

For example, to enter field information, enter **S** (Select) in the Line Cmd column to select multiple segment rows. As shown in Figure 1-17, the Definition Processor processes all of the selected rows before returning to the Segment Definition panel. You enter the END command when you are finished with one item and want to bring up the next.

```
FILESEGV --- ISPJJK1.INFORM.DEFLIB(CUSTOMER) ---------------------- ROW 1 OF 6
COMMAND ===>                                                  SCROLL ===> CSR

                VARIABLE LENGTH FILE DEFINITION FOR: CUSTOMER

    Buffer Size ===> 05000           Record Length   ===> 4992
    Updater Id  ===> myfile          Expiration Date ===> 12 / 31 / 09

Line       Segment      Segment       Segment     Segment          Fixed
Cmd         Name         Level        Number       Order        Occurrences
S...       CUSTOMER        1            001                        ___
S...       ORDER           2            002          A             044
S...       SHIPINV         3            003          A             ___
....       ITEMSHIP        4            004          A             ___
....       ITEMORD         3            005          A             ___
....       INSTALL         2            006          A             ___
******************************* BOTTOM OF DATA ****************************
```

```
FILNPL0V --- ISPJJK1.INFORM.DEFLIB(CUSTOMER) ---------------------- ROW 1 OF 8
COMMAND ===>                                                  SCROLL ===> CSR
                          FIELD DEFINITIONS FOR
                     FILE: CUSTOMER   SEGMENT: CUSTOMER
                                                                      Seg  Seg No
Line  Primary   Alternate                        ... Field ...  Dec  Key  Count
Cmd   Fld Name  Field Name                      Len  Loc  Typ  Plc  Num  Field
....  CUSTNO    ____________________________    005  0001  C    __    1   ___
....  CUSTNAME  ____________________________    030  0006  C    __    _   ___
....  CUSTPH    ____________________________    010  0036  C    __    _   ___
....  CUSTADDR  ____________________________    025  0046  C    __    _   ___
....  CITY      ____________________________    023  0071  C    __    _   ___
....  STATE     ____________________________    002  0094  C    __    _   ___
....  CUSTZIP   ____________________________    005  0096  C    __    _   ___
....  SEG60CNT  ____________________________    002  0101  F    __    _   006
******************************* BOTTOM OF DATA ****************************
```

Figure 1-17 Using Multiple Line Command Selections (Page 1 of 2)

```
FILNPL0V --- ISPJJK1.INFORM.DEFLIB(CUSTOMER) ---------------------- ROW 1 OF 15
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                      FILE: CUSTOMER   SEGMENT: ORDER

                                                                          Seg  Seg No
Line  Primary   Alternate                        ... Field ...   Dec   Key  Count
Cmd   Fld Name  Field Name                       Len  Loc  Typ  Plc   Num  Field
....  ORDERNO   ______________________________   005  0001  C    __     1    ___
....  ORDRDATE  ______________________________   006  0008  C    __     _    ___
....  ORPERSON  ______________________________   003  0014  C    __     _    ___
....  ORDPONUM  ______________________________   005  0017  C    __     _    ___
....  ORDDUDAT  ______________________________   006  0022  C    __     _    ___
....  ORDMONTH  ______________________________   002  0008  C    __     _    ___
....  ORDERDAY  ______________________________   002  0010  C    __     _    ___
....  ORDYEAR   ______________________________   002  0012  C    __     _    ___
....  ORDINVGN  ______________________________   001  0028  C    __     _    ___
....  ORDCMPLT  ______________________________   001  0029  C    __     _    ___
....  SEG30CNT  ______________________________   002  0040  F    __     _    003
....  SEG50CNT  ______________________________   002  0042  F    __     _    005
....  DUEMONTH  ______________________________   002  0022  C    __     _
....  DUEDAY    ______________________________   002  0024  C    __     _    ___
....  DUEYEAR   ______________________________   002  0026  C    __     _    ___
```

```
FILNPL0V --- ISPJJK1.INFORM.DEFLIB(CUSTOMER) ---------------------- ROW 1 OF 11
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                      FILE: CUSTOMER   SEGMENT: SHIPINV

                                                                          Seg Seg No
Line  Primary   Alternate                        ... Field ...   Dec   Key Count
Cmd   Fld Name  Field Name                       Len  Loc  Typ  Plc   Num Field
....  SHIPNO    ______________________________   004  0001  C    __     1   ___
....  SHIPDATE  ______________________________   006  0005  C    __     _   ___
....  SHIPPER   ______________________________   003  0011  C    __     _   ___
....  FRTCOST   ______________________________   004  0023  P    02     _   ___
....  INVNO     ______________________________   005  0041  C    __     _   ___
....  INVDATE   ______________________________   006  0048  C    __     _   ___
....  INAMT     ______________________________   004  0054  P    02     _   ___
....  PAYDATE   ______________________________   006  0070  C    __     _   ___
....  CHECKNO   ______________________________   007  0076  C    __     _   ___
....  PAIDDATE  ______________________________   006  0083  C    __     _   ___
....  SEG40CNT  ______________________________   002  0099  F    __     _   004
******************************** BOTTOM OF DATA ********************************
```

Figure 1-17 Using Multiple Line Command Selections (Page 2 of 2)

You can use multiple Select line commands on any panel (with a subordinate panel) that has a scrollable data entry area containing line command fields.

Using Interactive Help Facilities

The Definition Processor provides you with complete tutorial and Help facilities. These facilities work interactively and in a manner similar to the ISPF tutorial and Help facilities.

The tutorial and Help facilities are really one and the same in that they contain the same information. The difference between them lies in how and when you use them.

The tutorial, which you can enter from the Definition Processor Main Menu, provides you with an introduction and overview of the Definition Processor. If you sequentially read through the entire Definition Processor tutorial, following every leg and path within the tutorial, you see every Help panel as well. The difference between the tutorial and Help facilities is how you access the facility:

- Use the HELP command to display a Help panel that specifically pertains to the current data entry panel you are viewing.
- You start the tutorial at the beginning of the Help panel system and proceed sequentially through panels to the end.

Use the END command from a Help panel to return you to the previous panel.

Context Sensitive Help

To view the Help panel for the panel you are currently using, enter HELP on the command line. PF1 is the default PF key for the HELP command.

If you enter HELP on the Field Definition panel, the following Help panel displays.

```
Inform ---------------Field Characteristics--------------------------Tutorial
COMMAND ===>


    Field Name is the name of the field that you are defining, or the name
    of the result field for automatic table lookup. The first character of
    the field name must be alphabetic. Valid values for other characters are:
    A thru Z, 0 thru 9, @, #, and $.


    Length is the number of bytes in the field. The following lengths
    are valid for each field type:

        Character fields (C) : 1 - 77      Packed decimal (P) : 1 - 15
        Zoned decimal    (Z) : 1 - 15      Fixed point    (F) : 1 - 4
        Date (Lillian)   (D) : 4 only


    Location provides the starting position of the field relative to the
    beginning of its segment. Enter 1-9999. Leave this blank for automatic
    table lookup result fields.
```

Figure 1-18 Using the Help Command (PF1)

Field Level Help

To give you an even finer level of Help, the Definition Processor also provides a field level Help facility. You activate this Help facility by entering a question mark (?) in the first position of a data entry field. Field level Help is available in the Definition Processor Edit subsystem.

The following figure demonstrates how the field level Help facility works using the Type entry on the Field Definition panel as a sample.

```
FILNPL0V --- ISPJJK1.INFORM.DEFLIB(EMPFILE) ----------------------- ROW 1 OF 7
COMMAND ===>                                                SCROLL ===> CSR

                              FIELD DEFINITIONS FOR
                        FILE: EMPFILE    SEGMENT: EMPLOYEE

                                                                     Seg  Seg No
Line  Primary   Alternate                         ... Field ...  Dec  Key  Count
Cmd   Fld Name  Field Name                        Len  Loc  Typ  Plc  Num  Field
....  EMPNUM    EMPLOYEE_NUMBER                   8    1     ?   __    1   ___
....  EMPNAME   ______________________________    20   9     C   __    _   ___
....  EMPTITLE  ______________________________    20   29    C   __    _   ___
....  EMPSAL    ______________________________    6    49    Z   __    _   ___
....  EMPSEX    ______________________________    1    55    C   __    _   ___
....  EMPAGE    ______________________________    2    56    C   __    _   ___
....  EMPFIL    ______________________________    23   58    C   __    _   ___
****************************** BOTTOM OF DATA *******************************
```

Figure 1-19 Requesting Help for a Field

Figure 1-20 shows the resulting Help panel.

```
Inform ------------------- FIELD CHARACTERISTICS ------------------ TUTORIAL
COMMAND ===>

    Type specifies the type of data in the field.  Enter one of the
    following codes:


        Blank - Character string
        C     - Character string
        Z     - Zoned decimal number
        P     - Packed decimal number
        F     - Fixed point binary number
        D     - Date Field - Lilian Date Format
        R     - Automatic table lookup result field.  An entry of "R"
                will invoke a follow-on panel that is used to define
                automatic table lookup.  The field name, length, etc.
                are carried forward.


    Decimal Places is used to specify the number of decimal places in a
    numeric field.  For Packed Decimal fields only, enter 0 - 15.  For all
    other numeric field types, enter 0 - 9.

                            (Continued On Next Page)
```

Figure 1-20 The Help Panel for a Specific Field

When you return to the Field Definition panel, a summary message (ENTER: BLANK/C, Z, P, F, D, E, V, R, L OR S) displays to remind you of the valid entries for the field for which you requested help. The summary message for the example is shown in the following figure.

```
M9L0APFP --- ISPJJK1.INFORM.DEFLIB(EMPFILE) ----------------------------------
COMMAND ===>                                                SCROLL ===> CSR
ENTER: BLANK/C, Z,P,F,D,E,V,R,L OR S
                            FIELD DEFINITIONS FOR
                       FILE: EMPFILE    SEGMENT: EMPLOYEE

                                                                    Seg  Seg No
Line  Primary   Alternate                        ... Field ...  Dec  Key  Count
Cmd   Fld Name  Field Name                       Len  Loc  Typ  Plc  Num  Field
....  EMPNUM    EMPLOYEE_NUMBER                  8    1     ?   __    1   ___
....  EMPNAME   ___________________________      20   9     C   __    _   ___
....  EMPTITLE  ___________________________      20   29    C   __    _   ___
....  EMPSAL    ___________________________      6    49    Z   __    _   ___
....  EMPSEX    ___________________________      1    55    C   __    _   ___
....  EMPAGE    ___________________________      2    56    C   __    _   ___
....  EMPFIL    ___________________________      23   58    C   __    _   ___
******************************* BOTTOM OF DATA ********************************
```

Figure 1-21 A Summary Message

Help Navigation Commands

A special command language for use within all the Help facilities is available. The following figure lists these Help facility commands.

Command Name	Default PF Key	Tutorial Command Description
BACK	N/A	Return to the previous Help panel
SKIP	N/A	Skip to the next topic
UP	N/A	Display the next higher level of topics
TOP	N/A	Display the Tutorial Table of Contents.

Figure 1-22 Help Facility Commands

Commands

As with ISPF, the Definition Processor commands can be broken down into the following two categories:

- Primary commands (Entered after COMMAND ===>).
- Line commands (Entered in the leftmost column over a series of dots ....).

The sample below shows where these different types of commands are entered on a Definition Processor panel.

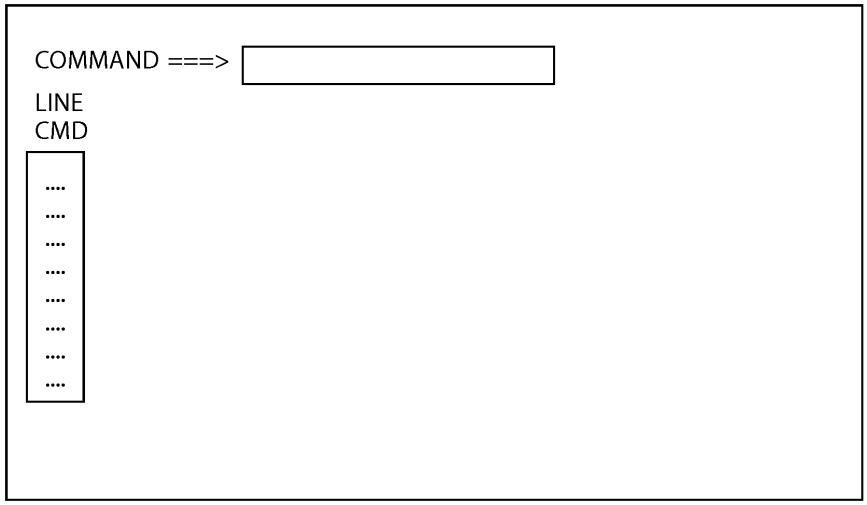


Figure 1-23 Primary Commands and Line Commands

Primary Commands

Primary command entry in the Definition Processor works the same as primary command entry in ISPF. In fact, most ISPF primary commands are also active in the Definition Processor. For a list of commands, see the table in Figure 1-24. This table:

- Lists ISPF primary commands that are available while you are using the VISION:Inform Definition Processor.
- Summarizes how each of these commands works in relation to the Definition Processor.

As with ISPF, you can enter the Definition Processor primary commands in one of the following ways:

- By entering the command in the Command area and pressing the Enter key.
- By pressing a PF key that has been defined to execute a specific command.

PF Key Assignments

You can use the KEYS primary command to view and change your current PF key (Program Function Key) assignments. Whenever you start a Definition Processor session, your PF key assignments are identical to the PF key assignments of your last Definition Processor session. The Definition Processor stores any changes you make to your PF key assignments. Changing your PF key assignments during your Definition Processor session does not affect your original ISPF PF key assignments.

See Figure 1-24 for a list of the ISPF default PF keys for some of the more common primary commands that are supported by the Definition Processor.

DUP ON and DUP OFF Primary Commands

Two additional primary commands are available that are specific to the Definition Processor. They are: DUP ON and DUP OFF.

DUP ON activates duplicate names checking, while DUP OFF disables duplicate names checking.

- With duplicate names checking on, the Definition Processor verifies that all segment and field names that you enter are unique within the file definition that you are creating. If you enter a duplicate name by mistake, the Definition Processor gives you an informative message alerting you to the problem.
- When duplicate checking is turned off, the Definition Processor does not check for name uniqueness when validating your entries.

When to Activate DUP OFF

Normally, you will want duplicate name checking turned on. However, sometimes when you are modifying a definition and you are going to temporarily create duplicate names, you create a new segment entry by repeating an existing segment entry. In this situation, turn duplicate name checking off until you have finished modifying the definition.

Each Definition Processor session begins with duplicate name checking turned on.

Pass the Field

When duplicate checking is turned on, you can tell the Definition Processor to ignore a particular field by entering a "P" (for Pass) in the line command field associated with the data row that received the duplicate name check error. This tells the Definition Processor to pass, or ignore, the field in error.

- That field is not checked again during your edit session.
- Once a field has been "passed," duplicate checking cannot be reactivated for that field during that edit session.

To reactive duplicate checking for that field you would have to save and reopen the definition.

Command Name	Default PF Key	ISPF Primary Command Description As It Pertains To The Definition Processor
=option	N/A	Jump directly from one option to another.
CANCEL	N/A	Ends the current edit session without saving the item. Any changes that have been made to the item are lost.
DOWN	PF8/20	Use within a scrollable data section to page toward the bottom of the data.
END	PF3/15	Ends the current operation. In most cases, using the END command returns you to the previous panel.
HELP	PF1/13	Displays a Help panel that pertains to the currently displayed panel.
KEYS	N/A	Displays a panel so that you can change your PF key definitions.
LEFT	PF10/12	Use within a scrollable data section to page toward the left margin.
LOCATE	N/A	Locate a specific member on a Member Selection List display.
PANELID	N/A	Turn the panel ID display on and off.
PRINT	N/A	Copies an image of your display screen to your ISPF list data set.
RETURN	PF4/16	Returns you to the last Primary Option Menu that was displayed.
RIGHT	PF11/23	Use within a scrollable data section to page toward the right margin.
RESET	N/A	Resets all Line Command fields back to the Line Command Pad Character that is specified in your Definition Processor Session Parameters.
SAVE	N/A	Saves the item you are editing without ending your edit session. You can use the parameter ASIS with this command to bypass validation and go directly to "Save Asis" processing.

Figure 1-24 Common ISPF Primary Commands (Page 1 of 2)

Command Name	Default PF Key	ISPF Primary Command Description As It Pertains To The Definition Processor
SPLIT	PF2/14	Splits the display screen into logical screens. Due to the possibility of ddname conflict between multiple ISPF sessions, this command is not active while in the Definition Processor Utilities subsystem.
SWAP	PF9/21	Use during split screen mode to position the cursor in another logical screen.
UP	PF7/19	Use within a scrollable data section to page toward the top of the data.

Figure 1-24 Common ISPF Primary Commands (Page 2 of 2)

Line Commands

Line commands differ from primary commands in the following ways:

- Use line commands to manipulate or process the scrollable data entry area of a panel.
- Enter line commands in the line command field of scrollable data rows.
- Specify the line command field as the left most field in a scrollable data row.

The following figure lists the line commands that are supported by the Definition Processor.

Command	Command Description
S	Selects a scrollable data row for further processing by displaying the next lower level panel.
I	Inserts a blank line after this line.
In	Inserts n blank lines after this line.
D	Deletes this line.
Dn	Deletes n lines.
DD	Delimits a block of lines to be deleted.
R	Repeats this line.
Rn	Repeats n lines.
RR	Delimits a block of lines to be repeated.
RRn	Delimits a block of lines to be repeated n times.
C	Copies this line.

Figure 1-25 Definition Processor Line Commands (Page 1 of 2)

Command	Command Description
Cn	Copies n lines.
CC	Delimits a block of lines to be copied.
M	Moves this line.
Mn	Moves n lines.
MM	Delimits a block of lines to be moved.
A	Identifies the line after which the moved/copied lines are to be inserted.
An	Inserts n copies of the moved/copied lines after this line.
B	Identifies the line before which the moved/copied lines are to be inserted.
Bn	Inserts n copies of the moved/copied lines before this line.

Figure 1-25 Definition Processor Line Commands (Page 2 of 2)

Added Functionality in Definition Processor Line Commands

Due to the Definition Processor panel hierarchy, the Definition Processor line commands differ from ISPF line commands in that they operate with more functionality than the ISPF commands. This additional functionality enables them to process the entire data hierarchy below the row being processed, rather than just processing the current scrollable row. The following example uses the File Definition subsystem to illustrate this concept.

Note:

- User input is shown in **bold**.
- The text shows user input in mixed case. The panels show the user input in lowercase.

Assume we are editing the EMPLOYEE file definition. In the Segment panel, use the Select line command, S, to select the EMPLOYEE segment.

```
Line    Segment    Hierarchical    Segment     Fixed         Segment
Cmd      Name         Level        Number   Occurrences      Order

S'''   EMPLOYEE        1            1       -----           -
```

This enables us to view the fields that have been defined for this segment.

```
Line    Field                                          Dec       Key   For Seg
Cmd     Name              Loc     Len     Typ          PLC       Num    Name

 ''''   EMPNUM            1         8     C            --        ---    -------
 ''''   EMPNAME           9        20     C            --        ---    -------
 ''''   EMPTITLE         29        20     C            --        ---    -------
 ''''   EMPSAL           49         6     C            --        ---    -------
 ''''   EMPSEX           55         1     C            --        ---    -------
 ''''   EMPAGE           56         2     C            --        ---    -------
 ''''   EMPFIL           58        23     C            --        ---    -------
```

Returning to the Segment panel once again, we now enter a Repeat line command, R, for the EMPLOYEE segment we just selected.

```
Line    Segment    Hierarchical    Segment    Fixed         Segment
Cmd      Name       Level          Number   Occurrences     Order
r'''   EMPLOYEE       1              1        -----          -
```

You can see the result of the Repeat line command in the following panel segment. Notice that we now have two identical EMPLOYEE segments showing on the panel.

```
Line    Segment    Hierarchical    Segment    Fixed         Segment
Cmd      Name       Level          Number   Occurrences     Order

''''   EMPLOYEE       1              1        -----          -

''''   EMPLOYEE       1              1        -----          -
```

If we use the Select line command on the new, repeated version of the EMPLOYEE segment, we will see that all of the field definitions belonging to the original EMPLOYEE segment are repeated in the new EMPLOYEE segment.

The R command action discussed above has resulted in an illegal file definition, because segment and field names must be unique within a definition. We are illustrating a concept here and assume that editing would be performed to make the definition valid.

Generating and Printing Output

The Definition Processor has its own list data set. The list data set corresponds to the ISPF list data set in purpose and function. It holds all output that you request while in the Definition Processor Utilities subsystem. For example, if you use the Utilities to request a list of promoted items, the listing is automatically written to this data set.

Allocating the List Data Set

You need to allocate the Definition Processor list data set to the DD name M9LIST. You can pre-allocate this data set prior to starting the Definition Processor, but pre-allocation is not mandatory.

If the Definition Processor finds that this data set has not been pre-allocated, it dynamically allocates it for you, as needed, using the following naming convention:

&SYSPREF.(&SYSUID.)M9TEMPn.LIST

The Definition Processor uses the &SYSUID qualifier only if different from the system prefix, SYSPREF.

If you choose to pre-allocate M9LIST, you can allocate it as a SYSOUT data set, or you can allocate it with the following characteristics:

DSORG = PS	RECFM = FBA
LRECL = 133	BLKSIZE = 1330

When you terminate a Definition Processor session in which the list data set was pre-allocated prior to starting the session, the Definition Processor does not perform any kind of termination processing on this data set. It is up to you to print or delete this data set.

On the other hand, if the Definition Processor dynamically allocates the utility list data, the Process List Data Set panel, shown in Figure 1-26, displays at the end of your session.

```
LISTDISP -------------------- PROCESS LIST DATA SET ------------------------
COMMAND ===>

Process option   ===> K
SYSOUT class     ===> A

 VALID PROCESS OPTIONS:
  PD - Print data set and delete      K - Keep data set (without printing)
                                      D - Delete data set (without printing)

INSTRUCTIONS:
  Press ENTER key to complete termination.
  Enter END command to return to the primary option menu.

JOB STATEMENT INFORMATION:        (Required for system printer)
  ===> //ISPJKP1Z JOB (I02010,279300,SPG,37),'JKRESS BIN=31'
  ===> //     MSGCLASS=A,PRTY=5
  ===> /*ROUTE PRINT KAIIRSCS
  ===> //* * *  OUTPUT FROM THE DEFINITION PROCESSOR  * * *
```

Figure 1-26 The Process List Data Set Panel

The Process List Data Set panel functions in the same manner as the ISPF list data set panel. You specify (through the Definition Processor) what you want done with this data set. You can:

- Request that the Definition Processor automatically print this data set for you by specifying a processing option of PD (print and delete).
- Set up default processing parameters for this screen using the Parameters subsystem.

Unexpected Error Panel

When the Definition Processor experiences a problem from which it cannot recover, the Unexpected Error panel appears. Press the HELP key to display the error message. This screen is shown in the following figure.

```
ERROR --------------------------- UNEXPECTED ERROR -------------------------
OPTION ===>
INVALID CURSOR FIELD/AREA SPECIFIED AS A PARAMETER.
ID-DISPLAY SERVICE COULD NOT COMPLETE-RC > 8
       ************************************************************
       **   WARNING: The  Product has encountered                **
       **            an UNEXPECTED ERROR .                       **
       **            It is possible that the function being      **
       **            performed did not complete.                 **
       **                                                        **
       **  PROGRAM  :INTERDISP 10/04/01 18.18                    **
       **  PSW      :000000000 00000000                          **
       **  REGISTERS at time of Unexpected Error:                **
       **  Regs   0-300000000 0005FCA8 0000000C 00000001         **
       **  Regs   4-700000000 00000000 00000000 00000000         **
       **  Regs  8-110005F590 0005F86C 0004B8D8 0003C000         **
       **  Regs 12-1500044BA0 0005FC38 4F044C6E 00000000         **
       **                                                        **
       **  Please call Computer Associates International, Inc.   **
       **  Technical Support.                                    **
       ************************************************************

       Enter END or RETURN
```

Figure 1-27 Unexpected Error Panel

The Unexpected Error panel contains information that is very helpful to you and Computer Associates Technical Support when trying to determine the exact cause of the problem.

If you encounter this panel, make a screen print. If you cannot print the screen, copy the following information:

- Message text
- PSW Content
- Register 12 Contents
- Register 14 Contents
- Register 15 Contents

In addition to the above, supply as much of the following information as possible:

- What part of the Definition Processor were you using?
- Exactly what were you trying to do?
- What was the last data entry panel that you saw or completed?
- Any messages that display.
- Other comments that could be helpful.

Reporting A Problem

Once you have as much of this information as possible, see Contacting Computer Associates to report the problem to Computer Associates Technical Support.

You can find additional problem resolution information in the *Advantage VISION:Inform Installation Guide* for your environment.

Customizing the User Setup

You perform the following functions for a new user or to customize characteristics for a current user:

- Customize the user profile.
- Customize the PF key settings.
- Customize the Definition Processor session.
  - Set the session parameters.
  - Set the list data set parameters.
  - Set the default definition library and validation library information.

Customizing the User Profile

If you are using the Definition Processor for the first time, take a few minutes to customize your session. This is done by setting up default user profile information.

Just as you have a personal user profile for your regular ISPF session, you also have a personal user profile for the Definition Processor. This profile is automatically created and added to your ISPF profile library (member IADSPROF) the first time that you use the Definition Processor.

Every ISPF user has a personal profile library associated with their user ID. This library is a save area in that it provides a place for ISPF and ISPF applications, such as the Definition Processor, to save information about you between sessions.

Without a profile library, you would have to re-enter all the standard information that you routinely use during your session at the start of each new session. Using a profile library means that this standard session information is saved at the end of your session. At the start of your next session, the information is automatically retrieved from your profile and placed into the appropriate panels as default entries.

The information that is stored in your user profile is referred to as "session profile information." For more detailed information on how user profiles work, see the appropriate ISPF manual.

Since your Definition Processor user profile is empty the very first time that you use the Definition Processor, we recommend that you take a few minutes to review and complete your user profile information. Once this is done, you do not have to do it again, unless you want to change this information.

The Definition Processor uses your Definition Processor user profile to save the following information about your session:

- Default PF key assignments.
- Definition Processor session parameters.
- Default definition library specifications.
- Default validation library specifications.

Each of the above areas is discussed in the following sections.

Specifying Default PF Key Settings

The first time that you use the Definition Processor, you have a default set of PF Key assignments. These default PF Key assignments are shown in Figure 1-28.

PF Key	Command	PF Key	Command
PF1	HELP	PF13	HELP
PF2	SPLIT	PF14	SPLIT
PF3	END	PF15	END
PF4	RETURN	PF16	RETURN
PF5	RFIND	PF17	RFIND
PF6	RCHANGE	PF18	RCHANGE
PF7	UP	PF19	UP
PF8	DOWN	PF20	DOWN
PF9	SWAP	PF21	SWAP
PF10	LEFT	PF22	LEFT
PF11	RIGHT	PF23	RIGHT
PF12	CURSOR	PF24	CURSOR

Figure 1-28 Default PF Key Assignments

Changing the Default PF Key Assignments

You can change these default PF key assignments with the KEYS primary command. Type KEYS on the command line of any Definition Processor panel to display the standard PF keys panel. Use this panel to customize your PF key assignments. Any changes that you make to your Definition Processor PF key assignments are saved from session to session.

Changes to your Definition Processor PF key assignments do not affect your regular ISPF PF key assignments.

Customizing Your Definition Processor Session

You use the Parameters subsystem to customize how certain areas of the Definition Processor will work. You start the Parameters subsystem by selecting Option 10 (Parameters) from the Definition Processor Main Menu. This selection takes you to the Parameters Menu shown in the following figure.

```
PARMMENU --------------- DEFINITION PROCESSOR PARAMETERS --------------------
OPTION ===>


                              SESSION INFORMATION

                  1   SESSION  - Specify Session Parameters

                  2   LISTFILE - Specify List Data Set Parameters


                              SYSTEM INFORMATION

                  3   MAINT    - List Applied System Modifications
```

Figure 1-29 Parameters Menu

To establish user profile information, select the session information options. These options directly affect how your Definition Processor session operates. They include the Option 1 (Session) and the Option 2 (List File).

The Option 3 (Maint) displays the system modifications that are currently applied to the Definition Processor.

Setting Session Parameters

Selecting Option 1 (Session) from the Parameters Menu displays the Session Parameters panel, as shown in the following figure.

```
PARMSESS -------------------- SESSION PARAMETERS --------------------------
COMMAND ===>

  Automatic Tab Option             ===> ON     (ON or OFF)

  Line Command Pad Character       ===> '

  Input Field Pad Character        ===> _

  Auto Field Location Calculation? ===> NO     (YES or NO)

  Validation Message Level         ===> 3      (0, 1, 2, 3)

  Utilities Delete Character       ===> D

  Utilities Workarea Size          ===> 256    (number in K, minimum 96)
```

Figure 1-30 Selecting Session Parameters

Use the Session Parameters panel to customize certain operating characteristics of your Definition Processor session according to your own personal preferences.

Session Panel Contents

The following text describes the panel contents.

Automatic Tab Option

The Automatic Tab Option entry gives you the following control over the positioning of your cursor while entering data:

- If you specify ON for this entry, your cursor automatically positions to the first byte of the next data entry field after you complete the last byte of the field you are currently entering. This prevents your keyboard from locking if you accidentally try to type past the end of a field.
- If you specify OFF for this entry, you must use your Tab key to move to the next field after having reached the end of the current data entry field. If you accidentally try to type past the end of a field, your keyboard locks.

Line Command Pad Character

Use the Line Command Pad Character to specify a special character to be used as a pad character for the line command fields. Line command fields are used to enter Definition Processor line commands. They are always the leftmost fields in scrollable data entry rows. An apostrophe (') is the default pad character for line command fields.

Input Field Pad Character

Use the Input Field Pad Character to specify a special character to be used as a pad character for data entry fields that have a value of blank or null. An underscore (_) is the default pad character for data entry fields.

All of the Definition Processor data entry panels in this document use the default pad character of underscore for data entry fields and the default pad character of apostrophe for line command fields.

Auto Field Location Calculation

When you define fields for file definitions, the Auto Field Location Calculation entry allows you to request that the Definition Processor automatically calculate field start locations.

- The calculated field start location is based on the start entry and length entry of the previously-defined field.
- The first field is assumed to start in location 1 of the record.
- To use this feature effectively, the fields must be contiguous within a definition.

If you do not use this feature, you must enter both a field length and a field start position when defining fields for file definitions.

Validation Message Level

The Validation Message Level controls the types of messages that appear in your global validation output. Only messages with a severity level (type) equal to or greater than the value specified here are displayed. Valid entries are 0, 1, 2, and 3.

- Message levels 0, 1, and 2 are considered informational and warning messages.
- Message levels 3 and higher are error messages. Correct the errors to continue.

Utilities Delete Character

Use the Utilities Delete Character to specify a special character that must be used to select promoted definitions for deletion within the Utilities subsystem. Requiring a special character helps prevent accidental deletions.

Utilities Workarea Size

Use the Utilities Workarea Size to specify the size of the work area that is used by the Utilities subsystem. If, while using the Definition Processor Utilities, a message appears informing you that not enough storage is available, increase the amount specified in this entry.

Setting List Data Set Parameters

The Definition Processor list data set performs the same function for the Definition Processor that your ISPF list data set performs for ISPF. Any output that you request while in the Definition Processor Utilities subsystem is written to this data set.

Use the Parameter subsystem Option 2 (List File) to set up default processing information for your Definition Processor list data set. Selecting this option from the Parameter Menu displays the List Data Set panel shown in the following figure.

```
 PARMLOPT------------------- SPECIFY LIST DATA SET DEFAULTS -------------------
 COMMAND ===>

Process option   ===> K
SYSOUT class     ===> *
Lines per page   ===> 60
Primary pages    ===> 10
Secondary pages  ===> 5



VALID PROCESS OPTIONS:
 PD - Print data set and delete        K - Keep data set (without printing)
                                       D - Delete data set (without printing)

JOB STATEMENT INFORMATION:        (Required for system printer)
  ===> //ISPJJK1Z JOB (I02010,279300,SPG,37),'JKRESS BIN=31',
  ===> //    MSGCLASS=A,PRTY=5
  ===> /*ROUTE PRINT KAIIRSCS
  ===> //* * *
```

Figure 1-31 Selecting List Data Set Options

Use the List Data Set Parameters panel to specify how many lines per page you want printed and how much space, in terms of pages, you want allocated for this data set.

Use this panel to set up some default JCL information, such as a job card or route statements. The Definition Processor uses this JCL information when printing your list data set.

Setting Definition Library and Validation Library Information

The first time you use the Edit subsystem, the Definition Library Specification and Validation Library panels are blank.

The information you enter on these panels establishes default entries the next time the panels display. The default entries automatically re-appear whenever these panels are used. If you change an existing entry, the new entry replaces the old and becomes the new default entry.

The Definition Library Specification panel is shown in Figure 1-32. You can access this panel by selecting any of the Edit subsystem options from the Definition Processor Main Menu.

```
TABLE ---------------- DEFINITION LIBRARY SPECIFICATION --------------------
COMMAND ===>


 ISPF DEFINITION LIBRARY:
    Project  ===>
    Group    ===>           ===>           ===>           ===>
    Type     ===>
    Def Name ===>              (leave blank to view member selection list)


 OTHER DEFINITION LIBRARY:
    Library Name  ===>
    Volume Serial ===>           (if not cataloged)


 Library Password ===>           (if password protected)
```

Figure 1-32 Setting a Default Definition Library

The Validation Library Specification panel is shown below. This panel automatically displays during Save processing.

```
VALIDATE ----------------- GLOBAL VALIDATION PROCESSING --------------------
COMMAND ===>


   To perform a Global Validation of the definition before saving, enter
   the name of your VISION:Infom Background Processing Library and press
   enter.

   Background Library  ===>

   NOTE: Procedures are only validated for statement syntax.
         Field names are not validated until the procedure is promoted









   Press ENTER  To Validate  The Definition
   Enter END    To By-Pass   Validation And Proceed To Save Processing
   Enter CANCEL To Terminate Edit Without Saving The Definition
```

Figure 1-33 Setting a Default Validation Library

Contacting Computer Associates

For technical assistance with this product, contact Computer Associates Technical Support on the Internet at esupport.ca.com. Technical support is available 24 hours a day, 7 days a week.

Chapter

2 Starting with the Definition Processor Main Menu

Using Definition Processor Main Menu

The Definition Processor Main Menu is the first panel you see when entering the Definition Processor.

To complete this panel, enter one of the Definition Processor option numbers in the Command area and press Enter.

Note: The text uses the term 'Command area' to refer to the field following:

COMMAND ===>
Command ===>
OPTION ===>

The following figure shows the Definition Processor Main Menu.

Panel Name: PRIMENUPanel Identification: M9EYAPPM

```
PRIMMENU ----------- VISION:Inform DEFINITION PROCESSOR FACILITY ----------
OPTION ===>

              10  PARAMETERS - Specify Session Parameters

              19  IMPORT     - Import File Definitions from External Sources

              20  TABLE      - Create Table Definitions
              21  FILE       - Create File Definitions
              22  LDV        - Create Logical Data View Definitions
              23  PROCEDURE  - Create Procedures


              30  DISPLAY    - Review Definitions in Background Library
              31  PROMOTE    - Maintain Background and Foreground Libraries


              99  Requests   - Create Requests

               T  TUTORIAL   - View Definition Processor Tutorial
               X  EXIT       - Exit Definition Processor


                                        Computer Associates International, Inc.
```

Figure 2-1 The Definition Processor Main Menu

Note: You set the list data set parameters using the Definition Processor Main Menu Option 10 (Parameters). See *Chapter 3, The Parameters Subsystem*.

To exit from the Definition Processor Main Menu, use the END primary command or type **X** in the Command area and press Enter.

- If a Definition Processor list data set was allocated during your Definition Processor session and you use the END primary command to exit the Definition Processor, the Definition Processor List Data Set panel displays. Use this panel to override your default list data set processing parameters. For more information, see Process List Data Set Panel.
- If you exit the Definition Processor with an X option, the Process List Data Set panel does not display. Your default list data set processing parameters are automatically used.

Process List Data Set Panel

Panel Name: LISTDISPPanel Identification: M9EYTPLD

```
LISTDISP -----------------PROCESS LIST DATA SET ---------------------
COMMAND ===>

Process option     ===>
SYSOUT class       ===>

VALID PROCESS OPTIONS:
 PD - Print data set and delete   K - Keep data set (without printing)
                                  D - Delete data set (without printing)


INSTRUCTIONS:
  Press Enter key to complete termination.
  Enter END command t return to the primary option menu.

JOB STATEMENT INFORMATION:         (Required for system printer)
  ===>
  ===>
  ===>
```

Figure 2-2 Process List Data Set Panel

The Process List Data Set panel automatically displays when you use the END primary command to exit a Definition Processor session in which a list data set was allocated for you. Use this panel to override your default list data set processing parameters.

Press Enter to process you list data set and return to the Definition Processor Main Menu.

If you use the X option or the RETURN primary command to exit the Definition Processor session, the Process List Data Set panel does not display. The Definition Processor automatically uses your default list data set processing parameters.

Set the default data set processing parameters with the Definition Processor Main Menu Option 10 (Parameters), then Parameters Menu Option 2 (List Data Set Parameters).

Accessing the Definition Processor Subsystems

You access the Definition Processor subsystems from the Main Menu. Subsequent chapters address each of the subsystems, all the panels, and how to create and maintain definitions.

- For information on the Parameters subsystem, see Chapter 3, *The Parameters Subsystem*.
- For information on using the Import subsystem, see Chapter 4, *The Import Subsystem*.
- For information on using the Edit subsystem, see Chapter 5, *Using the Edit Subsystem*.
- For information on creating and editing tables, see Chapter 6, *Creating Table Definitions*.
- For information on creating and editing file definitions, see Chapter 7, *Creating File Definitions*. The first section of the chapter is applicable to any file type. Subsequent, independent sections are specific to a file type:
  - For relational file definitions, see Relational File Definitions.
  - For VSAM, KSDS, ESDS, and AIX file definitions, see VSAM (KSDS, ESDS, and AIX) File Definitions.
  - For DLI and DLI HDAM file definitions, see DL/I and DL/I HDAM File Definitions.
  - For fixed file definitions, see Fixed File Definitions.
  - For variable file definitions, see Variable File Definitions.
  - For undefined file definitions, see Undefined File Definitions.
  - For GDBI file definitions, see GDBI File Definitions.
- For information on creating and editing logical data views, see Chapter 8, *Creating Logical Data Views*.
- For information on creating and editing procedures, see Chapter 9, *Creating Procedures*.
- For information about the Utilities subsystem, see Chapter 10, *The Utilities Subsystem*.

Chapter

3 The Parameters Subsystem

This Parameters subsystem provides options for:

- Customizing your Definition Processor session.
- Providing default processing information for your Definition Processor list data set.
- Reviewing the System Modifications (SMs) that are currently applied to your Definition Processor software.

Select the Definition Processor Parameters subsystem by choosing Option 10 (Parameters) from the Definition Processor Main Menu.

Panel Structure Chart

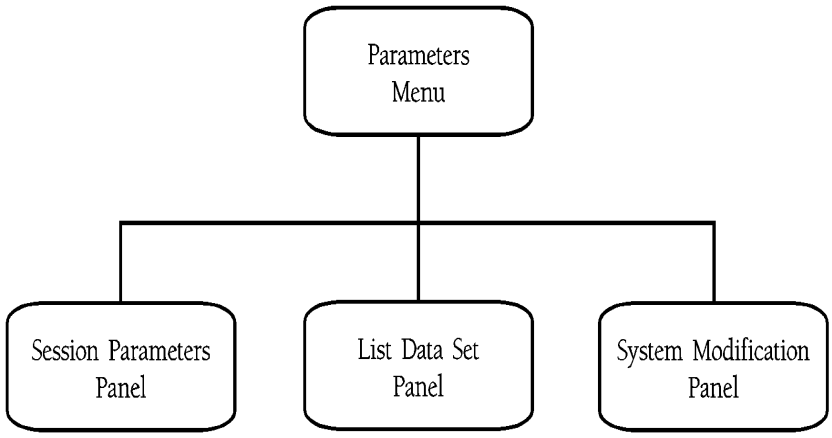


Figure 3-1 Parameters Subsystem Panel Structure

Parameters Menu

From the Definition Processor Main Menu, select Option 10 (Parameters) to display the Parameters Menu.

Panel Name: PARMMENU **Panel Identification: M9PMAPPM**

```
PARMMENU --------- DEFINITION PROCESSOR PARAMETERS --------------
OPTION ===>


                          SESSION INFORMATION

            1   SESSION  - Specify Session Parameters

            2   LISTFILE - Specify List Data Set Parameters


                          SYSTEM INFORMATION

            3   MAINT    - List Applied System Modifications
```

Figure 3-2 Parameters Menu

To complete this panel, enter an option number in the Command area (the field following OPTION ===>) and press Enter.

To return to the Definition Processor Main Menu, use the END primary command.

Session Parameters Panel

Display the Session Parameters panel by selecting Option 1 (Session) from the Parameters Menu. Use the Session Parameters panel to customize your Definition Processor session.

Panel Name: PARMSESS **Panel Identification: M9SAAPPM**

```
PARMSESS ---------------------- SESSION PARAMETERS --------------------------
COMMAND ===>

  Automatic Tab Option             ===> ON     (ON or OFF)
  Line Command Pad Character       ===> '
  Input Field Pad Character        ===> _
  Auto Field Location Calculation? ===> NO     (YES or NO)
  Validation Message Level         ===> 3      (0, 1, 2, 3)
  Utilities Delete Character       ===> D
  Utilities Workarea Size          ===> 256    (number in K, minimum 96)
```

Figure 3-3 Session Parameters Panel

When you have completed this panel, use the END primary command to return to the Parameters Menu.

Session Parameters Panel Components

The following is an explanation of the entries on this panel.

Automatic Tab Option

Use this option to control how the cursor works when you type past the end of a field while entering data.

- If you specify ON for this entry, the cursor automatically positions to the first byte of the next data entry field after you complete the last byte of the field you are currently entering. This prevents your keyboard from locking when you accidentally type past the end of a field.
- If you specify OFF for this entry, you must use the Tab key to move to the next field after having reached the end of the current data entry field. If you accidentally type past the end of a field, your keyboard locks.

The default value is ON.

Line Command Pad Character

Use this option to choose the pad character for all line command fields. Use the line command fields to enter Definition Processor line commands. They are always the leftmost fields in scrollable data rows.

The default value for this entry is an apostrophe (').

All of the Definition Processor data entry panels shown in this document use the default line command pad character of apostrophe.

Input Field Pad Character

Use this option to choose the pad character for data entry fields that have a blank or null value. Use this pad character for both fixed data entry fields and scrollable data entry fields, with the exception of line command fields and Command areas (COMMAND ===> fields, Command ===> fields, and OPTION ===> fields).

The default value is an underscore (_).

All of the Definition Processor data entry panels shown in this document use the default input field pad character of underscore.

Auto Field Location Calculation

Use this option to request that the Definition Processor automatically calculate field start locations when you create file definitions. The calculated field start location is based on the start entry and length entry of the previously-defined field. The first field in a segment is always assumed to start in location 1. To use this feature effectively, the fields must be contiguous within a segment.

If you do not use this feature, you must enter both a field length and a field start position when defining field information on the File Definition Fields panel.

The default value is NO.

Validation Message Level

Use this option to control the types of messages that appear in your global validation output. Only messages with a severity level (type) equal to or greater than the value specified display.

Valid entries are 0, 1, 2, and 3.

Messages with a level of 0, 1, or 2 are considered informational and warning messages, while messages with a level of 3 or higher are considered error messages.

The default value is 3.

Utilities Delete Character

Use this option to specify a special character that must be used to select promoted definitions for deletion when using the Utilities Delete option. Requiring a special delete character helps prevent accidental deletions.

The default value is the character D.

When deleting a promoted definition, you must enter this character in the Command area of the Utilities Delete panel.

Utilities Workarea Size

Use this option to specify the size of the work area that is allocated for the Utilities subsystem. If, while using the Definition Processor Utilities, a message displays informing you that not enough storage is available, increase the amount of storage specified in this entry. Specify this entry in "K" bytes (1024).

The default value is 256.

List Data Set Panel

From the Parameters Menu, select Option 2 (List File) to display the List Data Set panel.

Panel Name: PARMLOPT **Panel Identification: M9LPTPLP**

```
PARMLOPT-------------------- SPECIFY LIST DATA SET DEFAULTS -------------------
COMMAND ===>

Process option   ===> K
SYSOUT class     ===> *
Lines per page   ===> 60
Primary pages    ===> 10
Secondary pages  ===> 5



VALID PROCESS OPTIONS:
 PD - Print data set and delete        K - Keep data set (without printing)
                                       D - Delete data set (without printing)


JOB STATEMENT INFORMATION:        (Required for system printer)
  ===> //ISPJJK1Z JOB (I02010,279300,SPG,37),'JKRESS BIN=31',
  ===> //    MSGCLASS=A,PRTY=5
  ===> /*ROUTE PRINT KAIIRSCS
  ===> //* * *
```

Figure 3-4 List Data Set Panel

Use the List Data Set panel to establish default processing parameters for your Definition Processor list data set.

The Definition Processor list data set is processed in the following manner:

- If the Definition Processor has allocated a list data set for you and you terminate your Definition Processor session using the END primary command, the Definition Processor automatically displays the List Data Set panel. This panel provides the opportunity to override the default list data set processing parameters that were specified on this panel.
- If the Definition Processor has allocated a list data set for you and you terminate your Definition Processor session using option X or the RETURN primary command, the List Data Set panel does not display. The Definition Processor automatically uses the default list data set processing parameters that were specified on this panel.

When you complete this panel, use the END primary command to return to the Parameters Menu.

List Data Set Panel Components

The following is an explanation of each of the entries on the List Data Set panel.

Process Option

Use the Process Option to tell the Definition Processor how to handle your list data set during session termination processing. Valid entries for this entry are:

PD — Print and delete the list data set.

K — Keep the list data set without printing.

D — Delete the list data set without printing.

If you enter a Process Option of PD, you must also supply a SYSOUT class and default JCL statements.

SYSOUT Class

Use the SYSOUT Class option to determine where your Definition Processor list data set prints. The SYSOUT Class entry is a 15-byte character field. You can enter any valid JCL SYSOUT specifications.

For example, if you enter the following:

```
SYSOUT Class ===> A,,1234
```

a DD statement containing DD SYSOUT=(A,,1234) is generated and used to print your Definition Processor list data set.

- When you use the SYSOUT class for direct printing to the appropriate output device, provide the JCL JOB statement information.
- You must specify a SYSOUT class when you specify a Process Option of PD (print and delete).

Lines Per Page

Use the Lines Per Page option to format output directed to your Definition Processor list data set. Valid entries are between 40 and 99 lines per page.

- If standard size paper is used and printing is 6 lines per inch, use a value of 60.
- If standard size paper is used at 8 lines per inch, use a value of 80. The default value for this entry is 60.

Changes to this entry take effect immediately. Any output generated after this number has been changed is formatted using the new value.

Primary and Secondary Pages

Use these entries to specify the maximum number of pages to allocate for your Definition Processor list data set. A value of at least 1 must be specified for both the primary and secondary page entries. The default value for Primary Pages is 100. The default value for Secondary Pages is 200.

- If you change these values after your list data set has already been allocated the following message displays: “List data set already allocated. “ In this case, the changes do not take effect until your next Definition Processor session.
- If your list data set has not yet been allocated, these changes take effect immediately.

Job Statement Information

Use the Job Statement Information to submit the batch job that actually prints your Definition Processor list data set. At a minimum, enter a valid JCL JOB statement if you have specified a Process Option of PD.

Applied System Modifications Panel

From the Parameters Menu, select the Option 3 (Maint) to display the System Modifications panel.

Panel Name: PARMSM **PanelIdentification:M9SPAPSM**

```
PARMSM -------------------- SYSTEM MODIFICATIONS -----------  ROW 1 TO 1 OF 1
COMMAND ===>                                                 SCROLL ===> CSR

    Product: DEFINITION PROCESSOR
    Applied to Release -  3.0     as of  19:01 on 01/12/17 - 01.351

     SM             SM             SM             SM             SM
     Number         Number         Number         Number         Number
      201            202
****************************** BOTTOM OF DATA ******************************
```

Figure 3-5 System Modifications Panel

Use the System Modifications panel to view a list of System Modifications that are currently applied to your Definition Processor. System Modifications are remedies to problems that have been discovered in the product or customizations applied to the load library.

The product release number and the current time and date also display on this panel. There are no data entry fields on the System Modifications panel. This is an informational panel provided for your convenience.

To return to the Parameters Menu, use the END primary command.

Chapter

4

The Import Subsystem

The Import subsystem provides an automated interactive process to help in the conversion of external data definitions into the format used by VISION:Inform.

- The Definition Processor Main Menu Import option and the Quick Start utilities are provided as a starting point in the preparation of file definitions for use with VISION:Inform.
- After you convert external file definitions to a VISION:Inform format, you can modify and tailor file definitions using one of the Definition Processor Edit subsystem options from the Main Menu.

The Quick Start conversion utilities used in the Import system dialogs are documented in the *Advantage* VISION:Inform *Utilities Guide* and can be executed in a batch processing mode.

The Import subsystem dialogs assume that you are conceptually familiar with the utilities and the control statements, and that you have read the appropriate chapters in the *Advantage* VISION:Inform *Utilities Guide* that describe each utility.

From the Definition Processor Main Menu, you enter the Import subsystem by selecting the Option 19 (Import) to display the Import External Definitions Menu shown in Figure 4-1.

```
M9IM00   ----------------- IMPORT EXTERNAL DEFINITIONS -----------------------
COMMAND ===> _


   Select the Definition Type or processing option.

   Enter the number on the command line and press ENTER.


              1  - COBOL Definitions
              2  - DB2 Table Definitions
              3  - VISION:Results Definitions
              4  - VISION:Inquiry Definitions
              5  - VISION:Builder Definitions

              9  - Duplicate Field Name Check


   Use END or CANCEL to exit this process.
```

Figure 4-1 Import External Definitions Menu

There are several selections available to import and convert external definitions. Once selected, each subsequent dialog takes you through the process of entering information and executing the appropriate conversion utility.

Executing the Quick Start Utilities in Foreground

The Import options execute the Quick Start utilities in the foreground without having to prepare the JCL and control statements for batch job submission. The Import conversions are performed in the foreground using dialog panels, screen information displays, and the Quick Start utilities. The panels prompt you for the information needed to run each utility. The information is edited and saved, and is available from session to session.

After the utilities execute, their output listings display for you to review. The skeleton definitions are then checked for duplicate field names. You return to the Import External Definitions Menu when the Import process completes.

Information Screens, Messages, and Help

During the Import process, information screens display to indicate the various foreground activities being performed, the results of the activities, and if any interaction is required.

Messages display to describe any conditions that may need attention.

There are Help panels available throughout the dialogs to aid you in understanding the process and the specific entries on the various panels.

Import Subsystem Dialogs, Panels, and Function Keys

Each Import subsystem dialog is unique to the definition being converted and only builds one file definition at a time. There are similarities among the dialogs; however, the detail information entered for each process is maintained separately.

The use of function keys and commands is standardized within the Import subsystem. Each panel indicates the action and result from an available function key or command.

The following table describes the function keys and commands you can use in the Import system dialogs. You can also use the standard ISPF scrolling keys and commands.

Key or Command	Description
Enter	Captures the input data and/or moves forward through the dialog process. When the data or information is captured, it is edited and then stored. When appropriate, the next dialog panel appears after you press the Enter key. When any situation that prevents movement, like data errors or missing information, occurs, a message displays on the current panel.
End	Saves the data and list information and exits to the previous panel. In some cases, the data in the current panel is edited before exiting the display.
Cancel	Exits to the previous display without saving or validating the entered data or the information in a list.
Clear	Erases entries from the segment list so that a new list can be built. Clear causes the cleared segment list to be saved, replacing the previous information.
Run	Saves the entered data or information list and starts the execution of the appropriate Quick Start Utility.
Help	Displays help information associated with your current location in the dialog.
Asis	Accepts the information as is with the understanding that further action could be needed for the information to be valid.

Figure 4-2 Key and Commands

COBOL Definitions

Import COBOL definitions (copybooks) using the COBOL Quick Start Utility, which produces a VISION:Inform file definition from COBOL data definitions.

Note:

- The system administrator must perform additional installation preparations to setup the COBOL Quick Start Utility for retrieval from the CA-Panvalet and CA-Librarian libraries.
- For details, see the *Advantage* VISION:Inform *Installation Guide* for your environment.

After the Definition Processor builds the skeleton file definition, it is automatically checked for duplicate field names. If the Definition Processor finds duplicates, it prompts you to tailor the field name. When you need to make other modifications, use Option 21 (File) from the Definition Processor Main Menu.

You can retrieve COBOL definition copybooks from MVS™ partitioned data sets, CA-Panvalet® libraries, and CA-Librarian® libraries.

From the Import External Definitions panel, select Option 1 (COBOL definitions) to convert COBOL file definitions. The first panel in the definition conversion process requests the general information needed to execute the COBOL Quick Start Utility.

COBOL Quick Start Utility Run — General Information Panel

The following figure shows an example of this initial panel.

```
M9IM10  ---------------- COBOL Quick Start Utility Run ------------------------
COMMAND ===> _


 Provide the General Information for the COBOL Quick Start Utility run.

 Definition Library     ===> 'DEFS.LIBRARY'
 Listing Data Set Name  ===> 'IMPORT.LISTING'

 File Definition Name   ===> EMPFILE    (Member Name in the Definition Library)
 File Type              ===> VARIABLE   (Leave blank for Pop-up Choice List)
 Buffer Size            ===> 12K        (optional)
 Field Name Prefix      ===> EMP        (optional)
 Record Size            ===>            (optional - applies to Fixed/Variable)
 Records per Block      ===>            (optional - applies to Fixed)



 Press the ENTER key  to Capture the General Information
                      and Proceed to the Segment information Panel.


 Use END    to Save and Exit this process.
 Use CANCEL to Exit this process without save.
```

Figure 4-3 COBOL Quick Start Utility Run — General Information Panel

COBOL Quick Start Utility Run — General Information Panel Components

The following is a description of the entries on this panel.

Definition Library

Required. This is the source definition library in which the generated file definition will be written as output. Specify this data set as a PDS with fixed record format and LRECL = 80.

Listing Data Set Name

Required. Specify the location for the utility to write an output report. The report contains information regarding the run. This data set appears in browse mode at the end of the run so that you can review the utility information and any messages. Specify this as a sequential data set with a RECFM of F or FB and LRECL = 133.

File Definition Name

Note: If the member name already exists in the definition library, it will be replaced.

Required. This file name identifies the generated definition. The Definition Processor uses this name as the member name of the item written to the definition library.

- Specify a 1- to 8- character file name.
- Start the name with an alphabetic letter.
- Specify the remaining characters as alphanumeric characters.

File Type

Required. Indicate the file format type code for the file definition that is being generated in the run.

COBOL Quick Start Utility Run Panel with File Type Choice Pop-up Window

If you leave this field type blank, the File Type Choice pop-up window displays in the COBOL Quick Start Utility panel.

```
M9IM10  ---------------- COBOL Quick Start Utility Run ------------------------
COMMAND ===>


 Provide the General Information for the COBOL Quick Start Utility run.

 Definition Library     ===> DEFS.LIBRARY
 Listing Data Set Name  ===> IMPORT.LISTING

 File Definition Name   ===> EMPFILE    (Member Name in the Definition Library)
 File Type              ===>          .---------------------------------------.
 Buffer Size            ===> 12K      | M9IM11 -- FILE TYPE CHOICE WINDOW --  |
 Field Name Prefix      ===> EMP      | COMMAND ===> _                        |
 Record Size            ===>          |                                       |
 Records per Block      ===>          |  Press ENTER to process selection.    |
                                      |                                       |
                                      |   1. VSAM KSDS     7. Variable        |
                                      |   2. VSAM ESDS     8. Fixed           |
 Press the ENTER key  to Capture the  |   3. VSAM AIX      9. Undefined       |
                      and Proceed to  |   4  DB2          10. GDBI            |
                                      |   5. DLI          11. ISAM Fixed      |
                                      |   6. DLI HDAM     12. ISAM Variable   |
 Use END    to Save and Exit this pro |                                       |
 Use CANCEL to Exit this process with '---------------------------------------'
```

Figure 4-4 COBOL Quick Start Utility Run Panel with File Type Choice Pop-up Window

Use the File Type Choice pop-up window to select the file type value by entering the appropriate number.

You can also enter the file type entry value using the associated values as shown in the list below. The following figure describes the file types available.

File Type	Description
DB2	DB2 Relational Database
KSDS	VSAM Key Sequenced Data Set
ESDS	VSAM Entry Sequenced Data Set
AIX	VSAM Alternate Index Data Set
DLI	IMS™ Database
DLIHDAM	IMS HDAM Database
ISAMFIX	ISAM Fixed Length Record Format Data Set
ISAMVAR	ISAM Variable Length Record Format Data Set
FIXED	Fixed Length Record Format Data Set
VARIABLE	Variable Length Record Format Data Set
UNDEFINED	Undefined Record Format Data Set
GDBI	Generalized Data Base Interface Mapped File

Figure 4-5 File Types Available

Buffer Size

Optional. This is the maximum record size for database file types.

- For the simple fixed and variable file types, this is the block size.
- Use a number from 1 to 32760 or value of 1K to 9999K.

Field Name Prefix

Optional. Use from 1 to 3 characters for the prefix for the primary field names of the generated file definition. Since imported field names can be longer that eight characters, primary field names are automatically generated using this prefix and a sequential number.

- Start the prefix with an alphabetic letter.
- The Definition Processor uses the letter F if you do not specify a prefix.

Record Size

Optional. Specify simple fixed and variable file types by entering a number from 1 to 9999. For database file types, leave this entry left blank.

Records per Block

Optional. Specify fixed file types by entering a number from 1 to 999. For database and variable file types, leave this entry blank.

Once you enter the general information for the COBOL Quick Start Utility, press ENTER to save the information and display the next panel.

You specify detail information for the segments and file structure in the COBOL Quick Start Utility — Segments Information panel.

COBOL Quick Start Utility Run— Segments Information Panel

The information for the segments for the file definition is captured in a segment list.

- You build and manipulate the list by entering data and actions on the Input line.
- The list is ordered and referenced by the segment numbers.
- You enter the information to define the file segment structure, name the segments, and identify the source of the data definition.

The following figure shows the COBOL Quick Start Utility Run — Segments Information panel you use to enter the segment information.

```
M9IM12  ---------------- COBOL Quick Start Utility Run ------  ROW 1 TO 3 OF 3
COMMAND ===> _

         (A) Add , (C) Change or (D) Delete Segment Information.

             Action  Number/Level/Name       BookName/Type (Mvs,Pan,Libr)
  Input ===>   .       ..     .   ........   ........   .

 Press ENTER  to capture the Information into the Segment List below.
 Use   CLEAR  Command to ERASE all entries from the Segment List below.
 Use   END    to SAVE the List and Exit.
 Use   RUN    to SAVE the List and Execute the Utility program.
 Use   CANCEL to exit without save.

      File Definition  EMPFILE    Buffer Size  12K     Field Prefix  EMP
The Segment List --- Number/Level/Name       BookName/Type (Mvs,Pan,Libr)
                      10     1   OFFSEG     JKOFFICE   M
                      20     2   DEPTSEG    JKDEPT     P
                      30     3   EMPSEG     JKEMP      L
******************************** BOTTOM OF DATA ********************************
```

Figure 4-6 COBOL Quick Start Utility Run — Segment Information Panel

COBOL Quick Start Utility Run — Segment Information Panel Components

Note: Use the Clear primary command to remove all of the information from the segment list.

The following is a description of the entries on this panel.

Action

A — Add an item to the segment list.

C — Change the information for an item in the segment list.

D — Delete an item from the segment list.

Number

Use a number from 1 to 99 to identify the segment and the location within the file structure.

- Make subordinate segments a higher number and parent segments a lower number.
- Segment numbering is top to bottom, left to right within the structure.

Level

Use a number from 1 to 9 to identify the subordination of the segment within the file structure.

- Make the root segment level 1.
- Make all subordinate segments a number from 2 to 9.

Name

Enter a segment name starting with an alphabetic letter followed by alphanumeric characters. The name can be from 1 to 8 characters long.

Bookname

Enter the name of the copybook that contains the field definitions to be used when generating this segment definition.

Type (MVS,PAN,LIBR)

Enter a letter, M, P, L, to indicate the source library data set type where the copybook is stored.

- M identifies an MVS PDS data set.
- P identifies a CA-Panvalet library.
- L identifies a CA-Librarian library.

After you enter the segment information, the utility is ready to run.

Starting the COBOL Quick Start Utility

To start the utility, enter the RUN primary command.

In order to execute the COBOL Quick Start Utility, the data set names of the libraries that contain the data definition copybooks associated with the segment information are needed. Only the names of the data set types actually referenced in the segment list information need to be specified.

COBOL Quick Start Utility Run — Copybook Library Names Panel

The following figure shows the panel that displays to capture the copybook data set information.

```
M9IM13  ---------------- COBOL Quick Start Utility Run -----------------------
COMMAND ===> _


 Provide the CopyBook Library Names  for the COBOL Quick Start Utility run.

                              Copybook Data Set Names .....

 MVS       Library      ===> MVS.LIB

 Panvalet  Library      ===> PAN.LIB
 Librarian Library      ===> LBR.LIB

 (Note that only the libraries being used need to be supplied.)


 Press the ENTER key to Capture the Information and continue.


 Use END    to Save and Exit this process.
 Use CANCEL to Exit this process without save.
```

Figure 4-7 COBOL Quick Start Utility Run — Copybook Library Names Panel

The utility scans the segment information and prompts you for the required data set names if you have not entered them.

COBOL Quick Start Utility Run — Copybook Library Names Panel components

The following is a description of the entries on this panel.

MVS Library

Data set name indicates a PDS for copybook retrieval.

Panvalet Library

Data set name indicates a CA-Panvalet library for copybook retrieval.

Librarian Library

Data set name indicates a CA-Librarian library for copybook retrieval.

When the Utility Executes

Once you enter the data set names and press ENTER, the utility starts executing. The screen will contain information indicating that the utility is running.

When the utility completes, message text displays to indicate that the utility has completed and you can browse the output listing.

When you finish browsing the output, the dialog process automatically performs a duplicate field name check.

- The panel displays message text indicating that the checks are being performed.
- When the checks are completed, the screen displays message text indicating the results of the checks.
- If the Definition Processor finds duplicate names, you will be directed to a panel that lets you review and change the field names. See Duplicate Field Name Check.

When you complete this dialog, you return to the Import External Definitions Menu.

DB2 Table Definitions

Note:

- A DB2 bind, using a supplied DBRM, to create a DB2 plan must be performed before the utility can be executed.
- For details, see the *Advantage VISION:Inform Installation Guide* for your environment.

Import DB2 table definitions using the DB2 Quick Start Utility, which produces a VISION:Inform file definition from DB2 table definitions in the DB2 system catalog.

After the utility builds the skeleton file definition, it automatically checks for duplicate field names. If the utility finds duplicate names, it prompts you to tailor the field name. When you need to make other modifications, use Option 21 (File) from the Definition Processor Main Menu.

From the Import External Definitions panel, select Option 2 to convert DB2 file definitions. The first panel in the definition conversion process requests the general information needed to execute the DB2 Quick Start Utility.

DB2 Quick Start Utility Run — General Information Panel

The following figure shows an example of this initial panel.

```
M9IM20  ----------------- DB2 Quick Start Utility Run -------------------------
COMMAND ===>

 Provide the General Information for the DB2 Quick Start Utility run.

 Definition Library     ===> 'DEFS.LIBRARY'
 Listing Data Set Name  ===> 'IMPORT.LISTING'

 DB2 Plan Name          ===> INM4JJK2  Subsystem ID       ===> DB2T

 File Definition Name   ===> CUSTFILE  (Member Name in the Definition Library)
 Buffer Size            ===> 50K       (optional)
 Field Name Prefix      ===> CS        (optional)
 Field Name Format      ===> G         ( G - Gend, C - Column Name truncated)
 Field Headings         ===> L         ( L - DB2 Label, C - Column Name)
 Date Fields            ===> C         ( C - CHAR format, D - Lilian Date)
 Column to Long Name    ===> Y         ( Y - Yes, N - No, D - Description)
 Logical Relationships  ===> Y         ( Y - Gen LR statement, N - None)

 Press the ENTER key  to Capture the General Information
                      and Proceed to the Segment information Panel.

 Use END    to Save and Exit this process.
 Use CANCEL to Exit this process without save.
```

Figure 4-8 DB2 Quick Start Utility Run — General Information Panel

DB2 Quick Start Utility Run — General Information Panel Components

The following is a description of the entries on this panel.

Definition Library

Required. This is the source definition library in which the generated file definition will be written as output. Specify this data set as a PDS with fixed record format and LRECL = 80.

Listing Data Set Name

Required. Specify the location for the utility program output report. The report contains information regarding the run. This data set appears in browse mode at the end of the run so that you can review the utility information and any messages. Specify this data set as sequential with a RECFM of F or FB and LRECL = 133.

DB2 Plan Name

Required. Specify the plan name used during the installation process when binding the DB2 Quick Start Utility.

- The TSO Call Attach Facility is used to connect with DB2.
- The utility uses static SQL to process information from the DB2 SYSCOLUMNS table.

DB2 Subsystem ID

Required. This identifies the DB2 system that will be accessed for the table definition information.

File Definition Name

Note: If the member name already exists in the definition library, it will be replaced.

Required. This is the file name that identifies the generated definition. The Definition Processor uses this name as the member name of the item written to the definition library.

- Specify a 1- to 8- character file name.
- Start the name with an alphabetic letter.
- Specify the remaining characters as alphanumeric characters.

Buffer Size

Optional. This defines the size of the buffer needed to hold the maximum logical record. Use a number from 1 to 32760 or value of 1K to 9999K.

Field Name Prefix

Optional. Use 1 to 3 characters for the prefix for the primary field names of the generated file definition. Since the DB2 column names can be longer that eight characters, primary field names are automatically generated using this prefix and a sequential number.

- Start the prefix with an alphabetic letter.
- If you do not specify a prefix, the Definition Processor uses the letter F.

Once you enter the general information for the DB2 Quick Start Utility, press ENTER to save the information and display the next panel

You specify the detail information for the segments and file structure in the DB2 Quick Start Utility — Segments Information panel.

Field Name Format

This entry indicates whether the primary field name will be generated automatically or it will be the DB2 Column Name truncated to 8 characters.

- Enter G to have the primary field name will be generated automatically. The generated name is a prefix and a sequential number. The prefix is based on the value in the Field Name Prefix entry. The letter F is the default for the prefix.
- Enter C to have the primary field name become the DB2 Column Name truncated to 8 characters in length.

Field Headings

Indicates whether the column heading associated with each field will be created from the DB2 Label or the DB2 Column Name stored in the DB2 Catalog.

- Enter L to have the column headings created from the DB2 Label.
- Enter C to have the column headings created from the DB2 Column Name.

Date Fields

Indicates the field format to be used to hold DB2 Date Columns.

- Enter C to have the DB2 Date Columns handled as Character format.
- Enter L to have the DB2 Date Columns handled in Lilian Date format.

Column to Long Name

This entry indicates whether the DB2 Column Name should be placed in the Long Name area or Description area of the generated File Definition.

- Enter Y (yes) or N (no) to indicated if the DB2 Column Name should be placed in the Long Name area.
- Enter D to have the DB2 Column Name placed in the Description area.
- The Y and D values will cause the DB2 Column Name to be placed in both the Long Name and Description areas.
- The N value will cause the DB2 Column Name to only be placed in the Description Area.

Logical Relationships

This entry indicates whether the Logical Relationship (LR) statements will be generated in the File Definition.

- Enter Y to have the Logical Relationships (LR) statements automatically generated.
- Enter N to suppress the generation of Logical Relationships (LR) statements.

DB2 Quick Start Utility Run — Segments Information Panel

The information for the segments within the file definition is captured in a segment list.

- You build and manipulate the list by entering data and actions on the Input line.
- The list is ordered and referenced by the segment numbers.
- You enter the information to define the file segment structure, name the segments, and identify the source of the data definition.

The following figure shows the panel you use to enter the segment information.

```
M9IM21  ----------------- DB2 Quick Start Utility Run -------  ROW 1 TO 6 OF 6
COMMAND ===> _

         (A) Add , (C) Change or (D) Delete Segment Information.

             Action  Number/Level/Name       DB2 Table Name  and  Creator
  Input ===>   .       ..     .   ........   ...................   ........

 Press ENTER  to capture the Information into the Segment List below.
 Use   CLEAR  Command to ERASE all entries from the Segment List below.
 Use   END    to SAVE the List and Exit.
 Use   RUN    to SAVE the List and Execute the Utility program.
 Use   CANCEL to exit without save.

      File Definition  CUSTFILE   Buffer Size  50K     Field Prefix  CS
The Segment List --- Number/Level/Name       DB2 Table Name  and  Creator
                       10     1   CUSTSEG    JJKS10               ISPJJK1
                       20     2   ADDRSEG    JJKS20               ISPJJK1
                       30     2   SITESEG    JJKS30               ISPJJK1
                       40     3   PRODSEG    JJKS40               ISPJJK1
                       50     4   SYSSEG     JJKS50               ISPJJK1
                       60     4   ENVRSEG    JJKS60               ISPJJK1
********************************** BOTTOM OF DATA ***********************************
```

Figure 4-9 DB2 Quick Start Utility Run — Segments Information Panel

DB2 Quick Start Utility Run — Segments Information Panel Components

Note: You can use the Clear primary command to remove all of the information from the segment list.

The following is a description of the entries on this panel.

Action

A — Add an item to the list.

C — Change the information for an item in the list.

D — Delete an item from the list.

Number

Use a number from 1 to 99 to identify the segment and the location within the file structure.

- Make subordinate segments a higher number and parent segments a lower number.
- Segment numbering is top to bottom, left to right within the structure.

Level

Use a number from 1 to 9 to identify the subordination of the segment within the file structure.

- Make the root segment level 1.
- Make all subordinate segments a number from 2 to 9.

Name

Enter a segment name starting with an alphabetic letter followed by alphanumeric characters. Make the name from 1 to 8 characters in length.

DB2 Table Name

Enter the name of the DB2 table that contains the column information to be used when generating the segment field definitions.

Creator

Enter the authorization ID, creator ID, or an asterisk (*) to qualify the DB2 table name being accessed for field information. An asterisk (*) retrieves field information from all tables with the specified name.

After you enter the segment information, the utility is ready to run.

The utility will access the DB2 SYSCOLUMNS table and extract the column information for referenced tables in the segment list information.

Starting the Utility

To start the utility, enter the RUN primary command.

Entering RUN saves the panel information and initiates the utility. The screen displays information indicating that the utility is running.

When the utility completes, message text displays to indicate that the utility has completed and you can browse the output listing.

When you finish browsing the output, the dialog process automatically performs a duplicate field name check.

- The panel displays message text indicating that the checks are being performed.
- When the checks are completed, the screen displays message text indicating the results of the checks.
- If duplicate names are found, you will be directed to a panel that lets you review and change the field names. See Duplicate Field Name Check.

The dialog completes by returning to the Import External Definitions Menu.

VISION:Results Definitions

Import VISION:Results™ definitions using the VISION:Results Quick Start Utility, which produces a VISION:Inform file definition from a VISION:Results file definition.

After the Definition Processor builds the skeleton file definition, it is automatically checked for duplicate field names. If the Definition Processor finds duplicates, it prompts you to tailor the field name. When you need to make other modifications, use Option 21 (File) from the Definition Processor Main Menu.

You can retrieve VISION:Results definitions from MVS Partitioned Data Sets, CA-Panvalet libraries, and CA-Librarian libraries.

Note:

- The system administrator must perform additional installation preparations to set up the VISION:Results Quick Start Utility for retrieval from the CA-Panvalet and CA-Librarian libraries.
- For details, see the *Advantage VISION:Inform Installation Guide* for your environment.

From the Import External Definitions panel, select Option 3 (VISION:Results Definitions) to convert VISION:Results file definitions. The first panel in the definition conversion process requests the general information needed to execute the VISION:Results Quick Start Utility.

VISION:Results Quick Start Utility Run — General Information Panel

The following figure shows an example of this panel.

```
M9IM30  ------------ VISION:Results Quick Start Utility Run --------------------
COMMAND ===) _


 Provide the Information for the VISION:Results Quick Start Utility run.

 Definition Library     ===) 'DEFS.LIBRARY'
 Listing Data Set Name  ===) 'IMPORT.LISTING'

 Results Definition     ===) RSACCTS   (The Results File Name will become the)
                                       (Member Name in the Definition Library)

 Copybook Library Type  ===) P         (M,P,L - MVS, Panvalet, Librarian)
 MVS PDS   Library      ===)
 Panvalet  Library      ===) 'ISPJJK1.PAN.LIB'
 Librarian Library      ===)

 (Note that only the library being used needs to be supplied.)

 Press the ENTER key to Capture the Information

 Use END    to Save and Exit this process.
 Use RUN    to Save and Execute the Utility program.
 Use CANCEL to Exit this process without save.
```

Figure 4-10 VISION:Results Quick Start Utility Run — Information Panel

VISION:Results Quick Start Utility Run — Information Panel Components

The following is a description of the entries on this panel.

Definition Library

Required. The Definition Processor writes the generated file definition into the source definition library as output. This data set must be a PDS, fixed record format, and have an LRECL of 80.

Listing Data Set Name

Required. The Definition Processor writes an output report of information regarding the run to this data set. This data set appears in browse mode at the end of the run so that you can review the utility information and any messages. Specify this sequential data set with a RECFM of F or FB and LRECL =133.

Results Definition

Required. This is the name of the VISION:Results definition and identifies the generated definition. This name is also the member name of the item written to the definition library. The name must start with an alphabetic letter and can be up to eight alphanumeric characters in length.

If the member name already exists in the definition library, it will be replaced.

Copybook Library Type

Enter a letter, M, P, or L, to indicate the source library data set type where the VISION:Results definition is stored.

- M indicates that the copybook is stored in a MVS PDS data set.
- P indicates that the copybook is stored in a CA-Panvalet library.
- L indicates that the copybook is stored in a CA-Librarian library.

The data set name that corresponds to the value entered here must be supplied in one of the subsequent entries on this panel.

MVS PDS Library

The MVS data set name where the VISION:Results definition is stored for copybook retrieval.

Panvalet Library

The CA-Panvalet data set name where the VISION:Results definition is stored for copybook retrieval.

Librarian Library

The CA-Librarian data set name where the VISION:Results definition is stored for copybook retrieval.

The information on the panel is scanned and you are prompted for the required copybook data set names if they are not entered.

Starting the Utility

To start the utility, enter the RUN primary command.

Entering RUN saves the panel information and initiates the utility. As the utility runs, the screen contains information indicating that the utility is running.

When the utility completes, message text displays to indicate that the utility has completed and you can browse the output listing.

When you finish browsing the output, the dialog process automatically performs a duplicate field name check.

- The panel displays message text indicating that the checks are being performed.
- When the checks are completed, the screen displays message text indicating the results of the checks.
- If duplicate names are found, you will be directed to a panel that lets you review and change the field names. See Duplicate Field Name Check.

The dialog completes by returning to the Import External Definitions Menu.

VISION:Inquiry Definitions

Import VISION:Inquiry® definitions using the VISION:Inquiry Quick Start Utility, which produces a VISION:Inform file definition from VISION:Inquiry database maps.

After the skeleton file definition is built, it is automatically checked for duplicate field names. If the Definition Processor finds duplicates, it prompts you for field name. When you need to make other modifications, use Option 21 (File) from the Definition Processor Main Menu.

The VISION:Inquiry database maps are retrieved from the unloaded sequential copy of the system database created by the VISION:Inquiry IXULOAD utility. The IXULOAD utility is described in the VISION:Inquiry Technical Reference Guide.

From the Import External Definitions Menu, select Option 4 (VISION:Inquiry Definitions) to convert VISION:Inquiry definitions. The first panel on the definition conversion process requests the information needed to execute the VISION:Inquiry Quick Start Utility.

VISION:Inquiry Quick Start Utility Run — Information Panel

The following figure shows an example of this panel.

```
M9IM40  ------------ VISION:Inquiry Quick Start Utility Run --------------------
COMMAND ===> _


 Provide the Information for the VISION:Inquiry Quick Start Utility run.

 Definition Library     ===> 'DEFS.LIBRARY'
 Listing Data Set Name  ===> 'IMPORT.LISTING'

 UNLOADED Inquiry
 System Data Base       ===> 'IMS60.IXXDB.UNLOAD'

 Inquiry Definition     ===> VSHPLANT  (This name or Rename will become the )
                                       (Member Name in the Definition Library)
 Rename the Definition  ===> PLANTFIL  (optional)

 Buffer Size            ===> 15000     (optional)
 Field Name Prefix      ===> PL        (optional)

 Press the ENTER key to Capture the Information

 Use END    to Save and Exit this process.
 Use RUN    to Save and Execute the Utility program.
 Use CANCEL to Exit this process without save.
```

Figure 4-11 VISION:Inquiry Quick Start Utility Run — Information Panel

VISION:Inquiry Quick Start Utility Run — Information Panel Components

The following is an explanation of the entries on this panel.

Definition Library

Required. This is the source definition library in which the generated file definition will be written as output. This data set must be a PDS, fixed record format, and have an LRECL of 80.

Listing Data Set Name

Required. This is where the utility program will write an output report of information regarding the run. This data set is presented in browse mode at the end of the run so that you can review the utility information and any messages. Specify this as a sequential data set with a RECFM of F or FB and an LRECL = 133.

UNLOADED Inquiry System Database

Required. This is the name of the sequential data set that contains the unloaded system database created by the VISION:Inquiry IXULOAD utility.

Inquiry Definition

Required. This is the name of the database map to be converted. This name (or the Rename entry) will be used to identify the generated definition. This name will also be the member name of the item written to the definition library. The name must start with an alphabetic letter and can be up to eight alphanumeric characters in length.

If the member name already exists in the definition library, it will be replaced.

Rename the Definition

Optional. This is used to change the database map name on the generated definition. If used, this name will be used to identify the generated definition. This name will also be the member name of the item written to the definition library. The name must start with an alphabetic letter and can be up to eight alphanumeric characters in length.

If the member name already exists in the definition library, it will be replaced.

Buffer Size

Optional. This defines the size of the buffer needed to hold the maximum logical record. Use a number from 1 to 32760 or value of 1K to 9999K. This value is only used if the imported definition is for an IMS database.

Field Name Prefix

Optional. Use from 1 to 3 characters for the prefix for primary field names of the generated file definition. Since imported field names can be longer than eight characters, primary field names are automatically generated using this prefix and a sequential number.

- Start the prefix with an alphabetic letter.
- If you do not specify a prefix, the Definition Processor uses the letter F.

When the Utility Executes

Once you enter the data set names, enter RUN, the utility starts executing. The screen will contain information indicating that the utility is running.

When the utility completes, message text displays to indicate that the utility has completed and you can browse the output listing.

When you finish browsing the output, the process automatically performs a duplicate field name check.

- The panel displays message text indicating that the checks are being performed.
- When the checks are completed, the screen displays message text indicating the results of the checks.
- If the Definition Processor finds duplicate names, you will be directed to a panel that lets you review and change the field names. See Duplicate Field Name Check.

When you complete this dialog, you return to the Import External Definitions Menu.

VISION:Builder Definitions

Import VISION:Builder® definitions using a VISION:Builder source statement retrieval run identified now as the VISION:Builder Quick Start Utility.

This utility retrieves the file definition from a VISION:Builder COMLIB common library or a VISION:Inform background library. The file definition is already in the format used by VISION:Inform. There is no duplicate field name check performed since the definition will not contain duplicate field names. There is no need for additional tailoring. However, if any modifications are needed, such as alternate names or field descriptions use the Definition Processor File option from the Main Menu.

The file definitions are retrieved from the COMLIB common library data set, known as M4LIBs or the VISION:Inform background library. You can use either BDAM or VSAM as the access method format of the common library.

From the Import External Definitions panel, select Option 5 (VISION:Builder Definitions) to convert VISION:Builder definitions. The first panel in the definition conversion process requests the information needed to execute the Quick Start Utility.

VISION:Builder Quick Start Utility Run — Information Panel

The following figure shows an example of this panel.

```
M9IM50  ------------ VISION:Builder Quick Start Utility Run -------------------
COMMAND ===> _


 Provide the Information for the VISION:Builder Quick Start Utility run.


 Definition Library     ===> 'DEFS.LIBRARY'
 Listing Data Set Name  ===> 'IMPORT.LISTING'

 COMLIB Library Name    ===> 'JJKVSAM.COMLIB'

 File Definition Name   ===> SALEAMTS  (FIle Definition name in COMLIB)

 New Definition Name    ===> SALESFIL  (Leave blank to retain same name as)
                                       (Member Name in the Definition Library)


 Press the ENTER key to Capture the Information

 Use END    to Save and Exit this process.
 Use RUN    to Save and Execute the Utility program.
 Use CANCEL to Exit this process without save.
```

Figure 4-12 VISION:Builder Quick Start Utility Run — Information Panel

VISION:Builder Quick Start Utility Run — Information Panel Components

The following is a description of the entries on this panel.

Definition Library

Required. This is the source definition library in which the generated file definition will be written as output. Specify this data set as a PDS with fixed record format and LRECL = 80.

Listing Data Set Name

Required. This is where the utility program writes an output report of information regarding the run. This data set appears in browse mode at the end of the run so that you can review the utility information and any messages. Specify this as a sequential data set with a RECFM of F or FB and LRECL =133.

COMLIB Library Name

Required. This is the name of the VISION:Builder common library data set or the VISION:Inform background library that contains the file definitions to be retrieved.

File Definition Name

Required. This is the file definition name of the item stored in the common library. The Definition Processor uses this name to identify the retrieved definition. This name will also be the member name of the item written to the definition library unless a new name is specified.

If the member name already exists in the definition library, it will be replaced.

New Definition Name

Optional. This is used to change the file definition name of the retrieved item. Start the name with an alphabetic letter and make it up to eight alphanumeric characters in length. This name is also the member name of the item written to the definition library.

If the member name already exists in the definition library, it will be replaced.

When the Utility Executes

Once you enter the data set names, enter RUN, the utility starts executing. The screen will contain information indicating that the utility is running.

When the utility completes, message text displays to indicate that the utility has completed and you can browse the output listing.

When you complete this dialog, you return to the Import External Definitions Menu.

Duplicate Field Name Check

The Definition Processor automatically performs the Duplicate Field Name Check from the individual Import dialogs. You can also request this checking on any file definition that was either generated, developed, or copied to a definition library.

The Definition Processor retrieves and scans the definition.

- The primary field names and the alternate field names are checked for duplicate occurrences.
- Each field name in the definition must be unique.
- If duplicates are found, a panel displays and you can enter changes. Once you complete the changes, the Definition Processor writes the updated definition to the definition library.
- A foreground-executed, procedure language program checks for duplicate names.

Regardless of whether the Definition Processor automatically starts or you request the duplicate name check by selecting Option 9 (Duplicate Field Name Check) from the Import External Definitions Menu, the Duplicate Field Name Check Panel displays for you to enter the information required to perform this function.

Duplicate Field Name Check Panel

The following figure shows an example of this panel.

```
M9IM90  ---------------- Duplicate Field Name Check -----------------------------
COMMAND ===> _


 Provide the Definition Library and Member Name.


 Definition Library     ===> 'DEFS.LIBRARY'
 File Definition Name   ===> EMPFILE


 Press the ENTER key to Check for Duplicate Field Names.


 Use END    to Save and Exit this process.
 Use CANCEL to Exit this process without save.
```

Figure 4-13 Duplicate Field Name Check Panel

Duplicate Field Name Check Panel Components

The following is an explanation of the entries on this panel.

Definition Library

Required. This is the source definition library that contains the file definition to be scanned for duplicates. Specify this data set as a PDS with fixed record format and LRECL = 80.

File Definition Name

Required. This is the name (and PDS member name) of the file definition to be scanned for duplicates.

When the definition is changed and saved, it replaces the previous data.

Running Duplicate Name Check

Once you enter the information, press the ENTER key to start executing the duplicate field name program. The screen will contain text indicating that the checks are being performed.

When the checks are completed, message text displays indicating the results of the checks.

If duplicate names are found, you are directed to a panel that lets you review and change the field names. For more information, see the next section.

Duplicate Field Name Editor

The Duplicate Field Name Editor panel appears when duplicate fields names are found within a file definition generated by one of the individual Import dialogs. This panel process is shared by all functions within the Import option.

The Duplicate Field Name Editor panel contains a list of the primary and alternate field names from a file definition. The names are displayed in alphabetic order with the duplicate names flagged for correction.

When you complete the changes and end the interaction, the file definition is checked again for duplicates. Only when no more duplicates are found, will the interaction return to the Import External Definitions Menu.

Duplicate Field Name Editor Panel

The following figure shows an example of this panel.

```
M9IMA00 ----------------- Duplicate Field Name Editor ----  ROW 62 TO 72 OF 72
COMMAND ===> _

 Duplicate field names for file definition EMPFILE  flagged for correction.

 Press ENTER  to capture the name changes.
 Use   END    to SAVE and Re-Check for Duplicate Names.
 Use   CANCEL to Exit this process. (Changes are NOT Saved)
 Use   ASIS   to SAVE the Names ASIS and Exit.

Duplicate   Primary/Alternate                Name    From Segment
  Found     Field Names                      Type    Number/Name
            OFFICE_CODE                      ALT       10   OFFSEG
            OFFICE_DATA                      ALT       10   OFFSEG
            OFFICE_PHONE                     ALT       10   OFFSEG
            OFFICE_STATE                     ALT       10   OFFSEG
            OFFICE_STREET                    ALT       10   OFFSEG
            OFFICE_ZIP                       ALT       10   OFFSEG
            OFFICE_ZIP_FIRST_FIVE            ALT       10   OFFSEG
            OFFICE_ZIP_LAST_FOUR             ALT       10   OFFSEG
            SPEED_DIAL                       ALT       10   OFFSEG
    *       SPEED_DIAL                       ALT       20   DEPTSEG
    *       SPEED_DIAL                       ALT       30   EMPSEG
********************************** BOTTOM OF DATA **********************************
```

Figure 4-14 Duplicate Field Name Editor Panel

Duplicate Field Name Editor Panel Components

The following is an explanation of the information this panel.

Duplicate Found

This column contains an asterisk (*) for the field names that are duplicates as of the last duplicate check scan. The duplicate found flag is not reset until the interaction is ended by entering the END command which causes the definition to be checked again.

Primary/Alternate Field names

The names are displayed in alphabetic order and can be changed here by typing over the name entry.

Name Type

This column indicates which type of name is displayed. Primary names are indicated by PRI, and alternate names are indicated by ALT.

From Segment Number/Name

This column identifies the segment within the file structure that contains the field name.

When this dialog completes, it displays text indicating whether duplicates were still found or if they have all been corrected. Then it returns to the Import External Definition Menu.

Chapter

5

The Edit Subsystem

The Definition Processor Edit subsystem is the key component of Definition Processor. This is where you create and maintain all your VISION:Inform definitions.

You select the Edit subsystem by choosing one of the following options from the Definition Processor Main Menu:

- Option 20 —To create or modify table definitions.
- Option 21 — To create or modify file definitions.
- Option 22 — To create or modify logical data view definitions.
- Option 23 — To create or modify procedures.

The first sections of this chapter describe the Edit subsystem panels and options.

For an example of using the Definition Processor Edit subsystem, see Using the Edit Subsystem.

Panel Structure Chart

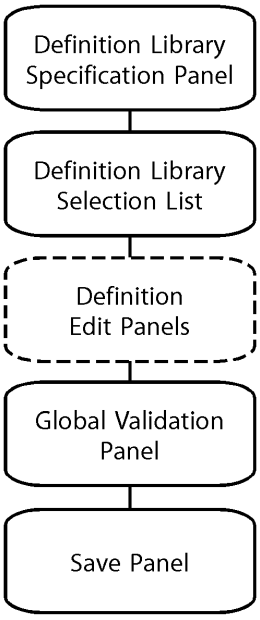


Figure 5-1 Edit Subsystem Panel Structure

Definition Library Specification Panel

Display the Definition Library Specification panel by selecting one of the edit options (20, 21, 22, or 23) from the Definition Processor Main Menu.

Panel Name: TABLE, FILE, LDV, PROCEDURE Panel Identification: M9IETPPM

```
TABLE ------------ DEFINITION LIBRARY SPECIFICATION -------------------
COMMAND ===>


ISPF DEFINITION LIBRARY:
  Project  ===>
  Group    ===>           ===>           ===>           ===>
  Type     ===>
  Def Name ===>            (leave blank to view member selection list)


OTHER DEFINITION LIBRARY:
  Library Name  ===>
  Volume Serial ===>       (if not cataloged)


Library Password ===>       (if password protected)
```

Figure 5-2 Definition Library Specification Panel

Use this panel to specify the location and name of the definition that you want to edit.

When you complete this panel, press Enter to continue with the edit process. To return to the Definition Processor Main Menu, use the END primary command.

Definition Library Specification Panel Components

The following is an explanation of how to complete this panel.

The Definition Library Specification panel has two sections:

- The ISPF Definition Library Section
- The Other Definition Library Section

ISPF Definition Library Section

If you want to concatenate definition libraries, or if your definition library naming conventions follow the ISPF library standard of PROJECT.GROUP.TYPE, you can use the ISPF Definition Library section of the panel to enter your definition library name. Names entered in this section of the Definition Library Specification panel are used exactly as entered. Do not use quotation marks to enclose these entries.

When you concatenate multiple definition libraries, place your primary definition library in the leftmost Group field, followed by your second, third, and fourth definition libraries. The Definition Processor searches these libraries in order (left to right), looking for the first occurrence of the desired definition.

Definition Name

When you use the ISPF Definition Library section, you can enter the definition name in the Def Name field.

- If you do not enter a definition name in this field, a definition selection list displays when you press Enter.
- If you enter a definition name, but the definition is not found to exist in any of the specified definition libraries, the Definition Processor assumes that you are creating a new definition.

  When the new definition is saved, the specified definition name becomes the member name in the definition library. Unless specifically overridden on the Save panel, the Definition Processor always writes the item out to the first or primary library specified in the concatenation sequence.

Other Definition Library Section

If you do not need to concatenate libraries, or if your definition library naming conventions do not follow standard ISPF library naming conventions, you must use the Other Definition Library section of this panel to enter your definition library and name.

Note: If you enter definition library names in both sections of the Definition Library Specification panel, the name specified in the Other Definition Library entry is used.

When you enter a data set name in this section of the panel, data set names that are not enclosed in single quotation marks are automatically prefixed with your TSO user ID. Data set names that are enclosed in single quotation marks are used exactly as entered.

Library Name

- If you enter a definition name along with the data set name, enclose it in parentheses and add it to the end of the specified data set name as follows:

  'INFORM.DEFLIB(DEFNAME)'

  Use quotation marks to prevent the specified name from being prefixed with a TSO user ID.
- If you do not enter a definition name, a definition selection list displays when you press Enter.
- If you enter a definition name, but the definition is not found in the specified definition library, the Definition Processor assumes that you are creating a new definition. When the new definition is saved, the specified definition name becomes the member name in the definition library.

Volume Serial Number and Library Password

You can also use the Definition Library Specification panel to specify a Volume Serial Number and Library Password.

- Use the Volume Serial entry only when using the Other Definition Library section of the panel.
- Use the password entry for data sets entered in either section of the panel. The password does not appear on the screen when you type it.

Definition Library Selection List Panel

When you complete the Definition Library Specification panel and do not specify a definition name, the Definition Library Selection List automatically displays when you press Enter.

Panel Name: DEFLIST **Panel Identification: M9IEAPML**

```
DEFLIST --- ISPJJK.INFORM.DEFLIB --------------------------  ROW 1 TO 20 OF 68
COMMAND ===>                                                  SCROLL ===> PAGE

   Name     Newname LIB VV.MM  Created  Last Modified  Size  Init   Mod   ID
_ FACCT             1  01 09 90/10/03 99/02/18 09:38   115   115     0 ISPLAG1
_ FCARS             1  01 12 92/02/14 01/12/17 11:44   243   243     0 ISPLAG1
_ FCOMPANY          1  01 03 87/07/15 00/02/16 16:01    392  392     0 ISPTMR1
_ FCUSTMER          1  01 01 89/02/16 01/10/14 11:06   119   120     0 ISPOMH1
_ FDEALERS          1  01 05 92/01/16 01/06/08 12:48    92    92     0 ISPLAG1
_ FEMPLYEE          1  01 12 92/02/14 01/12/17 11:44   243   243     0 ISPLAG1
_ LCARINFO          1  01 04 92/11/12 99/02/11 15:43    18    12     0 ISPLAG1
_ PBLDKEY1          1  01 03 87/07/16 00/02/16 16:01    26    20     0 ISPTMR1
_ PBLDKEY2          1  01 03 89/02/16 01/10/14 10:26    32    32     0 ISPOMH1
_ PDATE             1  01 03 89/07/16 01/10/14 15:40    42    42     0 ISPLAG1
_ TCAROPTS          1  01 06 92/02/04 01/07/30 11:04    30    30     0 ISPLAG1
_ TDEPTS            1  01 00 89/02/16 00/02/16 15:42    21    21     0 ISPTMR1
_ TMODNUMS          1  01 15 87/07/17 01/10/14 11:07    28    28     0 ISPOMH1
_ TMONTH            1  01 00 89/02/16 00/02/16 15:40    14    14     0 ISPTMR1
_ TSTATE            1  01 00 92/09/30 01/09/30 16:15    55    55     0 ISPLAG1
_
```

Figure 5-3 Definition Library Selection List Panel

The Definition Library Selection List works in a manner very similar to the standard ISPF member list.

Using the SELECT Primary Command or the Select Line Command

You can use either the SELECT primary command or the Select line command to select a definition from the displayed selection list.

To quickly scroll to a particular definition, use the LOCATE primary command.

Copying a Definition

The Select line command is convenient when you select an existing definition. When you use the Select line command, you can also use a Newname option. Use the Newname option to edit a definition under a new name. In essence, you make a copy of the original definition. The original definition is not affected.

To use the Newname feature enter S in the line command field and enter the new name under the Newname field.

When you have completed this panel, press Enter to proceed with the edit process.

Global Validation Panel

The Global Validation panel automatically displays during save processing.

Panel Name: VALIDATE **Panel Identification: M9VLTPPM**

```
VALIDATE ------------- GLOBAL VALIDATION PROCESSING ------------------
COMMAND ===>


   To perform a Global Validation of the definition before saving, enter
   the name of your VISION:Inform Background Processing Library and press
   enter.


   Background Library  ===>


NOTE:   Procedures are only validated for statement syntax.
        Field names are not validated until the procedure is promoted.


   Press ENTER  To Validate  The Definition
   Enter END    To By-Pass   Validation And Proceed To Save Processing
   Enter CANCEL To Terminate Edit Without Saving The Definition
```

Figure 5-4 Global Validation Panel

When you perform a global validation, you must enter the name of your VISION:Inform background library in the Background Library field. The Definition Processor uses this information to reference other definitions during the validation process.

- To proceed with the global validation, enter the name of your VISION:Inform background library and press Enter.
- To skip the global validation process and proceed with save processing, use the END primary command.
- To terminate your edit session without saving the definition, use the CANCEL primary command.

Save Panel

When you save, the Save panel automatically displays.

Panel Name: SAVE **Panel Identification: M9SATPPM**

```
SAVE ---------------------- SAVE PROCESSING --------------------------
COMMAND ===>

ISPF DEFINITION LIBRARY:
  Project  ===>
  Group    ===>
  Type     ===>
  Def Name ===>


OTHER DEFINITION LIBRARY:
  Library Name  ===>
  Volume Serial ===>           (if not cataloged)


Library Password ===>           (if password protected)


Press ENTER  To Save The Definition
Enter END    To Continue Editing The Definition
Enter CANCEL To Terminate Edit Without Saving The Definition
```

Figure 5-5 Save Panel

When the Save panel appears, the primary definition library and definition name that you entered on the Definition Library Specification panel automatically appear. To save your definition back to this library and member, press Enter.

If you want to override the default entries and save your definition to a different library or library member, enter a new definition library and definition name. If you specify an existing member name, that member is automatically replaced. A replace warning is not issued. Once you have entered a new name, press Enter to save the definition.

To return to your current edit session without saving the Definition, use the END primary command.

To terminate your current edit session, without saving any of your changes, use the CANCEL primary command.

Using the Edit Subsystem

Use the Definition Processor Edit subsystem to create and maintain your VISION:Inform file definitions, table definitions, logical data view definitions, and procedure definitions. The edit process is the same for creating new definitions and modifying existing ones.

For detailed information on the Edit subsystem panels and options, refer to previous sections. The following sections explain the edit process step-by step.

The edit process consists of the following five steps:

1. Select definition type.
2. Specify definition name and location.
3. Edit the selected definition.
4. Validate the definition.
5. Save the definition.

Step 1: Select a Definition Type

The first step in the Definition Processor edit process is to select the type of definition that you want to create or modify. Enter an option number on the Definition Processor Main Menu.

```
PRIMMENU ----------- VISION:Inform DEFINITION PROCESSOR FACILITY -----------
OPTION ===>

              10  PARAMETERS - Specify Session Parameters

              19  IMPORT     - Import File Definitions from External Sources

              20  TABLE      - Create Table Definitions
              21  FILE       - Create File Definitions
              22  LDV        - Create Logical Data View Definitions
              23  PROCEDURE  - Create Procedures


              30  DISPLAY    - Review Definitions in Background Library
              31  PROMOTE    - Maintain Background and Foreground Libraries


              99  Requests   - Create Requests

               T  TUTORIAL   - View Definition Processor Tutorial
               X  EXIT       - Exit Definition Processor


                                        Computer Associates International, Inc.
```

Figure 5-6 Definition Processor Main Menu

Step 2: Specify Definition Name and Location

Once you select a definition type from the Main Menu, you automatically proceed to Step 2 of the edit process.

In Step 2, you specify the definition libraries and definition name.

- Specify the definition library to indicate the location of the definition to the Definition Processor.
- Enter a definition name to specify the particular definition that you want to edit.

Specifying Definition Libraries

VISION:Inform stores all definitions in a master source library, called the definition library. The definition library is a standard OS/390 (z/OS) partitioned data set used as a central source repository by VISION:Inform.

- Each individual VISION:Inform definition is stored as a separate member in this partitioned data set.
- A definition's name becomes its member name in the library as well.
  - All definition names must adhere to standard naming conventions for partitioned data sets.
  - All definitions must have unique names independent of the definition type.
  - No two definitions can have the same name, even if they represent different types of definitions.

Use the Definition Library Specification panel shown to specify the definition libraries.

```
FILE -------------DEFINITION LIBRARY SPECIFICATION ---------------------
COMMAND ===>


ISPF DEFINITION LIBRARY:
   Project  ===>
   Group    ===>           ===>           ===>           ===>
   Type     ===>
   Def Name ===>            (leave blank to view member selection list)


OTHER DEFINITION LIBRARY:
   Library Name  ===>
   Volume Serial ===>       (if not cataloged)


Library Password ===>       (if password protected)
```

Figure 5-7 Specifying Definition Libraries

In general, the Definition Library Specification panel works in the same manner as its ISPF counterpart. Data set names that are not enclosed in quotes are automatically prefixed with your TSO user ID. Data set names that are enclosed in quotes are used exactly as entered.

The definition Library Specifications panel provides two different areas for specifying definition libraries.

When completing this panel, only one of these areas can be active at a time. If you specify libraries in more than one area, as shown in Figure 5-8, the library closest to the bottom of the panel is used.

```
FILE ------------ DEFINITION LIBRARY SPECIFICATION ---------------------
COMMAND ===>


ISPF DEFINITION LIBRARY:
   Project  ===> ISPJJK1
   Group    ===> DEVEL     ===>           ===>           ===>
   Type     ===> DEFS
   Def Name ===>            (leave blank to view member selection list)


OTHER DEFINITION LIBRARY:
   Library Name  ===> 'ISPJJK1.TEST.DEFS'
   Volume Serial ===>       (if not cataloged)


Library Password ===>       (if password protected)
```

Figure 5-8 A Completed Library Specification Panel

Concatenating Libraries

Use the Definition Library Specification panel to specify library concatenations as shown in the following figure.

```
FILE ------------ DEFINITION LIBRARY SPECIFICATION ---------------------
COMMAND ===>


 ISPF DEFINITION LIBRARY:
    Project  ===> ISPJJK1
    Group    ===> DEVEL   ===> TEST      ===> ALPHA     ===> BETA
    Type     ===> DEFS
    Def Name ===>             (leave blank to view member selection list)


 OTHER DEFINITION LIBRARY:
    Library Name  ===>
    Volume Serial ===>        (if not cataloged)


 Library Password ===>        (if password protected)
```

Figure 5-9 Concatenating Libraries

The system processes concatenated libraries in the same manner as ISPF. When you concatenate libraries, the Definition Processor searches the libraries in order (library 1 through library 4), looking for the first occurrence of the desired definition.

If the definition is not found, the Definition Processor assumes that you are creating a new definition.

Unless specifically overridden on the Save panel, the Definition Processor always writes the item out to the first or primary library in the specified concatenation sequence. This is true even if the definition was retrieved from library 2, 3, or 4.

Specifying Definition Names

To specify the name of the definition that you want to edit, use the Definition Library Specification panel.

The following figure shows the two different areas on a panel used to specify your definition libraries.

```
FILE ------------- DEFINITION LIBRARY SPECIFICATION ---------------------
COMMAND ===>


 ISPF DEFINITION LIBRARY:
    Project  ===>
    Group    ===>           ===>           ===>           ===>
    Type     ===>
    Def Name ===>              (leave blank to view member selection list)


 OTHER DEFINITION LIBRARY:
    Library Name  ===>
    Volume Serial ===>           (if not cataloged)


 Library Password ===>           (if password protected)
```

Figure 5-10 Specifying the Definition Libraries

When you specify a definition library you must also supply a member name. There are two ways to provide a member name.

- The first way is to include the member name on the Definition Library Specification panel.
- The second way is to select a member from the Definition Selection List.

If you do not supply a member name on the Definition Library Specification panel, a Definition Selection List automatically displays.

If you are creating a new definition, you can choose any member name that does not already exist in the specified definition libraries. When the new definition is saved, the specified member name is used as the definition name.

Definition Selection Lists

The following figure shows the Definition Processor Definition Selection List.

```
ITMSELCT --- ISPJJK1.DEVEL.DEFS ---------------------------  ROW 1 TO 20 OF 37
COMMAND ===>                                                 SCROLL ===> CSR

   Name     Newname LIB VV.MM  Created  Last Modified  Size  Init   Mod   ID
_ CUST               1  01 00 86/07/15 00/07/15 13:48     1     1     0 ISPDLD1
_ CUSTDB             1  00 00 87/10/21 99/09/17 15:35   150   150     0 ISPDLD1
_ CUSTDLI            1  01 01 86/02/05 00/07/02 17:00   157   143     0 ISPDLD1
_ CUSTITEM           1  00 00 87/10/08 99/10/10 12:13     8     8     0 ISPDLD1
_ CUSTOMER           1  00 00 87/11/23 99/10/16 10:37   144   144     0 ISPDLD1
_ CUSTVSAM           1  01 00 87/03/10 01/03/10 14:08   143   143     0 ISPRDP1
_ CUST2              1  01 00 91/10/04 99/10/04 10:22   149   149     0 ISPDLD1
_ DB2CST             1  01 01 87/09/24 01/10/02 13:39    32    32     0 ISPRDP1
_ DB2CUST            1  01 01 87/11/24 01/11/24 18:01    32    32     0 ISPRDP1
_ DB2DEFS            1  01 00 86/05/01 00/05/01 15:40    79    79     0 ISPJCR1
_ DB2FD              1  01 00 87/03/19 01/03/19 17:11    33    33     0 ISPDLD1
_ DIVTABLE           1  00 00 87/10/23 99/10/10 10:06     7     7     0 ISPDLD1
_ EMPFILE            1  00 00 90/10/16 99/10/16 09:49    10    10     0 ISPDLD1
_ FD                 1  01 02 86/07/11 01/03/20 14:43   129   129     0 ISPDLD1
_ FILEDEF            1  01 00 87/07/23 01/07/23 15:48    22    22     0 ISPDLD1
_ FILELDV            1  01 00 87/03/12 01/03/12 10:05    10    10     0 ISPDLD1
_ ITEM               1  00 00 87/01/13 99/10/10 12:13    40    40     0 ISPDLD1
_ ITEMAPP1           1  01 00 87/05/15 01/05/15 16:36    17    17     0 ISPRDP1
_ ITEMAST            1  01 02 85/12/28 00/01/15 10:05    56    58     0 ISPDLD1
_ ITEMDB             1  01 06 87/05/15 01/05/15 16:33    57    57     0 ISPRDP1
_
```

Figure 5-11 Using the Definition Selection List

The Definition Selection List works in a manner similar to the standard ISPF member selection list. To view this list, leave the definition name blank on the Library Specification panel and press the Enter key.

From the list, you can select a definition by using the SELECT primary command or the Select line command.

SELECT Primary Command

The SELECT primary command is convenient for creating a new definition. On the command line, enter the command S, and follow it with the new definition name, as shown in the following example:

```
COMMAND ===> s newfile
```

Select Line Command

You can also use the Select line command to select an existing definition.

When you use the Select line command, you can specify a new name by using the Newname field.

To create a copy of an existing definition, enter S in the line command field and enter the new name in the Newname field, as shown in the following figure.

```
ITMSELCT --- ISPJJK1.INFORM.DEFS ---------------------------- ROW 10 TO 29 OF 52
COMMAND ===>                                                  SCROLL ===> CSR

   Name    Newname LIB VV.MM  Created  Last Modified  Size  Init   Mod   ID
_ CUSTVSAM          1  01 00 87/03/10 01/03/10 14:08   143   143     0 ISPRDP1
_ CUST2             1  01 00 91/10/04 99/10/04 10:22   149   149     0 ISPDLD1
_ DB2CST            1  01 01 87/09/24 01/10/02 13:39    32    32     0 ISPRDP1
_ DB2CUST           1  01 01 87/11/24 01/11/24 18:01    32    32     0 ISPRDP1
_ DB2DEFS           1  01 00 86/05/01 00/05/01 15:40    79    79     0 ISPJCR1
_ DB2FD             1  01 00 87/03/19 01/03/19 17:11    33    33     0 ISPDLD1
_ DIVTABLE          1  01 01 87/10/23 99/07/08 15:40     7     7     0 ISPDLD1
S EMPFILE newfile   1  00 00 90/10/16 90/10/16 09:49    10    10     0 ISPDLD1
_ FD                1  01 02 86/07/11 01/03/20 14:43   129   129     0 ISPDLD1
_ FILEDEF           1  01 00 87/07/23 01/07/23 15:48    22    22     0 ISPDLD1
_ FILELDV           1  01 00 87/03/12 01/03/12 10:05    10    10     0 ISPDLD1
_ ITEM              1  00 00 87/01/13 99/10/10 12:13    40    40     0 ISPDLD1
_ ITEMAPP1          1  01 00 87/05/15 01/05/15 16:36    17    17     0 ISPRDP1
_ ITEMAST           1  01 02 85/12/28 00/01/15 10:05    56    58     0 ISPDLD1
_ ITEMDB            1  01 06 87/05/15 01/05/15 16:33    57    57     0 ISPRDP1
_ ITEMMAST          1  01 00 86/01/15 00/01/15 09:56     1     1     0 ISPDLD1
_ LDV               1  00 00 87/03/23 99/10/15 09:59     5     5     0 ISPDLD1
_ LDV1              1  01 01 87/01/16 01/03/17 17:38    12    12     0 ISPDLD1
_ LDV2              1  01 02 87/03/11 01/03/20 09:57    14    14     0 ISPDLD1
_ LOGICAL           1  00 00 90/10/15 99/10/15 09:56     3     3     0 ISPDLD1
_
```

Figure 5-12 Creating a Definition Using the Newname Field

To help you quickly scroll to a particular definition, use the LOCATE primary command on any definition selection list.

The Import Process

Once you complete the Definition Library Specification panel by specifying your definition libraries and definition name, the system proceeds with the import process. During the import process, the Definition Processor loads the specified definition into internal tables from the library you specify. The Definition Processor uses these tables to display the definition in a structured, hierarchical manner.

Step 3: Edit the Selected Definition

In Step 3 of the edit process, you create and modify your definition by modifying the information displayed on the data entry panels.

Panel Hierarchy

The Definition Processor data entry panels form a hierarchy. Using this hierarchy enables the Definition Processor to display a definition in a structured and organized manner.

Moving Downward

To step down through this hierarchy, use Select in the line command field of the scrollable data row that you want to continue processing. If you select a row for which there are no more lower levels, the following informational message displays:

THE SELECT LINE COMMAND IS NOT ACTIVE.

Moving Upward

To step back up through the hierarchy, use the END primary command (usually PF3).

Using Help

Whenever you are uncertain about how to complete a data entry panel, remember to use the interactive Help facility. You can request Help for the entire screen using the HELP primary command or for a particular field by entering a question mark (?) in the first byte of the field.

Automatic Validation

The Definition Processor automatically validates your file definition during the edit session. The validation catches invalid duplicate entries as the duplicate entries are made. Duplicate segment names and duplicate field names are treated as an error. In the case of a duplicate field name, an informational message displays to let you know the name of the segment where the duplicated field name can be found.

Duplicate Entry Checking Off

You can prevent the Definition Processor from checking for invalid duplicate entries any time during your edit session by using the DUP OFF primary command. The DUP ON primary command can be used to reactivate duplicate checking. Each Definition Processor edit session begins with duplicate checking on.

Duplicate Entry Checking On

When duplicate checking is turned on, you can tell the Definition Processor to ignore a particular field by entering "P" (for Pass) in the line command field associated with the data row that has received the duplicate name check error. This tells the Definition Processor to pass, or ignore, the field in error. That field will not be checked again during your edit session.

Once a field has been passed, duplicate checking cannot be reactivated for that field. To reactive duplicate checking for that field you would have to save and reopen the definition.

Step 4: Validate the Definition

In Step 4 of the edit process, you validate your definition. You specify the validation step at the end of your edit session. This step gives you the opportunity to request a global validation of the definition you are editing. The Definition Processor performs global validation by calling the Background Processor to validate the entire definition.

The following Global Validation panel appears at the end of your edit session.

```
VALIDATE ----------------- GLOBAL VALIDATION PROCESSING -----------------------
COMMAND ===>


    To perform a Global Validation of the definition before saving, enter
    the name of your VISION:Product Background Processing Library and press
    enter.

    Background Library  ===> 'DEVEL.TEST.BGLIB'


NOTE:   Procedures are only validated for statement syntax.
        Field names are not validated until the procedure is promoted.




    Press ENTER  To Validate  The Definition
    Enter END    To By-Pass   Validation And Proceed To Save Processing
    Enter CANCEL To Terminate Edit Without Saving The Definition
```

Figure 5-13 Global Validation Panel

Use the Global Validation panel to specify the validation library. Enter the name of your background library here. To validate and save the definition, press Enter.

To bypass the validation process and proceed with save processing, use the END primary command.

To terminate the edit session without saving the definition, use the CANCEL primary command.

During the validation run, the entire definition is checked not only for valid syntax, but also for consistency among all associated entries across the entire definition. If no errors are found, the Save Processing panel automatically displays.

Browsing Validation Output

If errors are encountered in a file definition, table definition, or logical data view definition, you can browse the output generated during the validation processing. When browsing this listing you can use the RIGHT, LEFT, UP, and DOWN primary commands to examine the entire listing.

The following figure shows a sample of validation output.

```
VALMSGS - ISPJJK1.M9TEMP1.LIST ------------------ LINE 00000000 COL 001 080
COMMAND ===>                  '                     SCROLL ===> CSR
FILE WAS NOT SAVED DUE TO THE ERRORS LISTED BELOW.
** CLSIT07  TYPE 1  THE SPECIFIED EXPIRATION DATE/RETENTION PERIOD IS INVALID.
** CLSAA00  TYPE 0  DEFINITION CUSTOMER IS BEING PROCESSED.
** CLSUL08  TYPE 3  FIELD CUSTNO   PREVIOUSLY DEFINED.
** CLSUL07  TYPE 3  DUPLICATE LINE NUMBER FOR FIELD CUSTNO  .
** CLSUL07  TYPE 3  DUPLICATE LINE NUMBER FOR FIELD CUSTNO  .
** CLSUN00  TYPE 1  SEGMENT  2 LEVEL 2 CONTAINS OVERLAPPING FIELDS.
*************************** BOTTOM OF DATA ****************************
```

Figure 5-14 Sample Validation Output

Viewing the Validation Message Listing

When viewing the validation message listing, you will see four different types of messages.

- Type 0 messages are informational messages and display for your information only.
- Type 1 messages are warnings.
- Type 3 messages are diagnostic messages. These messages mean that you need to correct the problem. For this reason, review all Type 3 messages carefully.
- Type 5 and Type 9 messages represent severe error conditions. If you encounter any Type 5 or Type 9 messages and can not resolve the error, contact Computer Associates Technical Support.

When you perform a global validation, you can control the types of messages that display on the message listing by setting the Message Level Option on the Definition Processor Session Parameters panel.

When you finish browsing the validation output, use the END primary command to continue.

When the Procedure Processing Statements Panel Re-displays

If errors are found during procedure validation, the Procedure Processing Statements panel re-displays and you will find error messages inserted into your procedure. The error messages are inserted following the procedure statements that caused the errors. These error messages are recognized by the EMSG literal inserted into the line command field, as shown in the following figure.

```
ASL ---- ISPJJK1.DEVEL.DEFS(ASLPROC) ------------------------------------
COMMAND ===>                                                SCROLL ===> CSR
 PROCEDURE CONTAINS ERRORS. SEE THE 3 LINES MARKED "EMSG".
            PROCEDURE NAME: ASLPROC         Procedure Type ===> _
            Reinit Temps? ===> _            Maximum Items  ===> ____

 Line  Free Form Processing Statements
 Cmd   ------------------------------------------------------------------------
 ''''  DO FORL 1.PARM
 EMSG  M021 Invalid syntax
 ''''    IF 1.RECORD NE ' ' THEN
 ''''      SET T.FIELD1 = 1.FIELD1
 EMSG  M020 Invalid statement
 ''''      SET T.FIELD2 = 1.FIELD2
 EMSG  M020 Invalid statement
 ''''    END
 ''''  END
 ****************************** BOTTOM OF DATA ****************************
```

Figure 5-15 Procedure Validation Errors

- If you do not delete the error message lines before pressing the END key again, rows that have the EMSG literal in the command line are automatically deleted when you exit the panel.
- If you want to save the message rows, blank out the EMSG literal that appears in the line command field. Then that row becomes part of the procedure.

You can bypass the procedure validation process by entering NOCHECK on the command line before pressing the END key.

Always perform a global validation of all definitions before attempting to run the Promote process. This ensures that the Promote process can successfully complete. Invalid definitions cause the Promote process to fail.

Step 5: Save the Definition

In the final step in the edit process, Step 5, you save the definition being edited back to the original member from which it was retrieved, or to a different member or even different library, if you do not want to replace the original definition.

Use the Save Processing panel shown below to save your definition.

```
SAVE ---------------------- SAVE PROCESSING --------------------------
COMMAND ===>
 VALIDATION SUCCESSFULLY COMPLETED, PRESS ENTER TO SAVE THE DEFINITION
 ISPF DEFINITION LIBRARY:
    Project  ===> ISPJJK1
    Group    ===> DEVEL
    Type     ===> DEFS
    Def Name ===> CUSTOMER


 OTHER DEFINITION LIBRARY:
    Library Name  ===>
    Volume Serial ===>           (if not cataloged)


 Library Password ===>           (if password protected)



  Press ENTER  To Save The Definition
  Enter END    To Continue Editing The Definition
  Enter CANCEL To Terminate Edit Without Saving The Definition
```

Figure 5-16 Saving the Edited Definition

Saving to the Same Name

To save your definition, enter the name of a partitioned data set where you would like to save the source.

Saving to a Different Name

When you save a definition back into a partitioned data set, you do not have to save to the same member name. You can save the definition to a new member name by specifying a member name that does not already exist. If you specify an existing member name, that member is automatically replaced.

Exporting

Once you have entered the desired library name, press the Enter key to export or save the item.

Not Saving

If you would like to return to your current edit session without saving the item, use the END command. To terminate your current edit session, without saving any of your changes, use the CANCEL command.

Saving During an Edit Session

You can save the definition being edited at any time during your edit session using the SAVE or SAVE ASIS primary commands.

The SAVE and SAVE ASIS Commands

The SAVE command takes you to the Validation panel.

The SAVE ASIS command takes you to the Save panel, bypassing the global validation step. Entering SAVEASIS (without a space between the words) is improper syntax for this command and is processed as if you entered SAVE.

Upon completion of either of these commands, you are returned to the panel from which you entered the SAVE or SAVE ASIS command.

Chapter

6 Creating Table Definitions

Use the Table definition subsystem to create VISION:Inform table definitions. Table definitions are used by VISION:Inform's automatic table lookup feature. When VISION:Inform retrieves data, this feature automatically replaces short data codes with descriptive phrases.

Panel Structure Chart

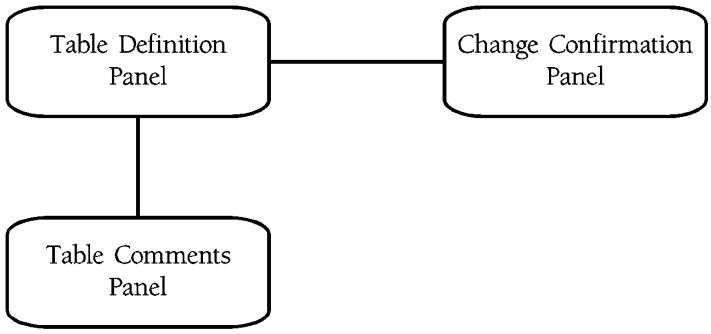


Figure 6-1 Table Subsystem Panel Structure Chart

Table Definition Panel

Display the Table Definition panel by selecting Option 20 (Table) from the Definition Processor Main Menu.

After selecting Option 20 (Table), you either select an existing table or enter a new name on the Definition Library Specification panel (TABLE).

Panel Name: TBLDEF Panel Identification: M9TBAPTP

```
TBLDEF ----- ISPFJJK1.DEFLIB(TABLE) ------------------------ ROW 1 OF 13
COMMAND ===>                                                SCROLL ===> PAGE
                              TABLE DEFINITION: NEW

  Table Type      ===> _       Edit Table Comments? ===> _
  Argument Length ===> ___     Arg    Type ===> _   Decimal Places ===> _
  Result   Length ===> ___     Result Type ===> _   Decimal Places ===> _
  Updater Id      ===> ____________  Exp Date ===> __ / __ / __
Line
Cmd        ----- Argument Data ----             ------- Result Data ----
''''
''''
''''
''''
''''
''''
''''
''''
''''
''''
''''
''''
''''
******************************* BOTTOM OF DATA ********************************
```

Figure 6-2 Table Definition Panel

When you complete your table definition, use the END primary command on this panel to start the save process.

Table Definition Panel Components

The following is an explanation of each of the entries on this panel.

Table Type

The table type is a 1-character code that specifies the type of table being created. The search technique is based on the table type. Enter one of the following types:

Note: A binary search technique is used to search binary tables.

- B or blank — Create a binary table.
- D — Create a displacement table.
- S — Create a sequential table. A sequential search is performed on sequential tables.

Edit Table Comments?

To display the Table Comments panel, enter a Y in this field.

Argument Length

The argument length specifies the maximum length of table argument entries. Enter a length, in bytes, within the following ranges depending on the field type.

Type	Length (Bytes)	Range
D	1 to 77	1 to 77 characters
Z	1 to 15	1 to 15 digits (plus sign)
P	1 to 8	1 to 15 digits (plus sign)
F	1	-128 to 127
F	2	-32,768 to 32,767
F	3	-8,388,608 to 8,388,607
F	4	-2,147,483,648 to 2,147,483,647

Zero is not a valid argument length.

For type P fields, enter the number of bytes, not digits. The number of bytes is equal to:

number of bytes = (# of digits + 1) / 2

When you have a remainder, round up to the next whole number to get the required number of bytes.

Argument Type

The argument type is a 1-character code indicating the field type of the table argument. Enter one of the following codes:

- C or blank — For character strings.
- F — For fixed-point binary numbers (two's complement binary format).
- P — For packed decimal numbers.
- Z — For zoned decimal numbers.

Argument Decimal Places

This entry indicates the number of decimal places in a type Z, P, or F numeric argument field. Enter a number from 0 to 9 using the following rules. If you leave this column blank, zero decimal places are assumed.

Type	Rule
C	Do not use as an entry.
Z	Make this entry less than the field length.
P	Make this entry less than twice the field length minus one.
F	Field length 1 — maximum 3.
	Field length 2 — maximum 5.
	Field length 3 — maximum 7.
	Field length 4 — maximum 9.

Result Length

Specify the maximum length, in bytes, of table result entries. Enter the field length using the same rules as for the argument length entry.

Result Type

The result type is a 1-character code indicating the field type of the table result entries. Enter one of the following alphabetic codes.

- C or blank — For a character string.
- F — For a fixed point binary number (two's complement binary format).
- P — For a packed decimal number.
- Z — For a zoned decimal number.

Result Decimal Places

This entry specifies the number of decimal places in a numeric result field. Make your entry using the same rules as for the argument decimals entry.

Updater ID

This entry is optional or required, depending on your installation-specified parameters for MARKLIBP. Use this field to track the last user to modify a definition. When you promote a definition, this entry is saved in the background library as definition statistics.

Expiration Date

This is the expiration date or retention period for the table definition. Use the expiration date, in conjunction with the VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete table definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform Library Restore Utility, you optionally purge the expired definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at all U.S. installations. International date notation can be different.
- You can also enter a retention period in the format nnnnn+.

Argument Data

Enter the table argument data in these entries.

The argument data values specified here are compared against the provided table search argument during the automatic table lookup process. If a match is found, the corresponding result value is returned. Table argument values can be blank or up to 77 characters in length.

Enter a left-aligned character string using a leading sign and decimal point, as needed, to represent a numeric value. The value is converted to the type, scale, and length you define for table arguments. If the value you enter is shorter than the length specified, it is padded with trailing blanks or leading zeros, as appropriate.

Result Data

Enter the table result data in these entries.

During the automatic table look up process, if the table search argument is found to match one of the table arguments, the corresponding table result data value returns. Result values can be blank or up to 77 characters in length.

Enter a left-aligned character string using a leading sign and decimal point as needed to represent a numeric value. The value is converted to the type, scale, and length you define for results.

- If the value you enter is shorter than the length specified, it is padded with trailing blanks or leading zeros, as appropriate.
- A zero value in a numeric field for which decimal places are specified prints as a decimal point followed by as many zeros as there are decimal places.

Table Comments Panel

Display the Table Comments panel by entering a Y in the Edit Table Comments? entry in the Table Definition panel.

Panel Name: TBLPROL Panel Identification: M9TBAPCM

```
TBLPROL---- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------- ROW 1 OF 18
COMMAND ===>                                                    SCROLL ===> CSR
                              TABLE COMMENTS                    TABLE  : SAMPLE
Line          Text
Cmd
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
....          _____________________________________________________________
****************************** BOTTOM OF DATA ******************************
```

Figure 6-3 Table Comments Panel

You can use the Table Comments panel to enter comments about your table definition. Comments are saved in the definition library. They are not part of the definition that is promoted to the background and foreground libraries.

When you complete this panel, use the END primary command to return to the Table Definition panel.

Table Change Confirmation Panel

The Table Change Confirmation panel automatically displays when changes are made to the Table Argument Length or Table Result Length fields that could result in truncation of existing argument and result data.

Panel Name: TBLTRUNC Panel Identification: M9TEAPCF

```
TBLTRUNC---- ISPJJK1.INFORM.DEFLIB(TABLE) ----------------------------------
COMMAND ===>                                                 SCROLL ===> CSR
                                                             TABLE: TABLE
          TABLE TYPE      ===>     BINARY
          ARGUMENT LENGTH ===> 1     TYPE ===>     DECIMALS ===>
          RESULT   LENGTH ===> 5     TYPE ===>     DECIMALS ===>
          EXPIRATION DATE ===>    /    /          USER DATA ===>



          ********************************************************
          *                                                      *
          *  The table characteristics were changed.  The        *
          *  ARGUMENT and/or RESULT values may be truncated.     *
          *                                                      *
          ********************************************************


        Press END   to cancel the change(s).
        Press ENTER to confirm the change(s).
```

Figure 6-4 Table Change Confirmation Panel

To continue with the specified argument or result field length changes, press Enter.

To cancel these changes and restore the original length values, use the END primary command.

Chapter 7

Creating File Definitions

This first section applies to any type of file definition. Subsequent sections are specific to a file type.

You define files, databases, and logical records by entering information on a series of panels that define file definition characteristics and structure.

Note: The text uses the term Command area to refer to the field after following*:*

COMMAND ===>
Command ===>
OPTION ===>

The following list summarizes the panels you use to create a file definition:

- File Types Panel
- Segments Panel
- Mapping Procedure Panel (GDBI files only)
- Logical Relationships Panel (DB2 file only)
- Fields Panel
- Automatic Table Lookup Panel (optional)
- Additional Field Information Panel (optional)

File Definitions

To edit file definitions, select Option 21 (File) from the Definition Processor Main Menu to display the Definition Library Specifications panel.

Panel Structure Chart — File Definitions

Complete the Definition Library Specification panel and press Enter to display the Files Type panel.

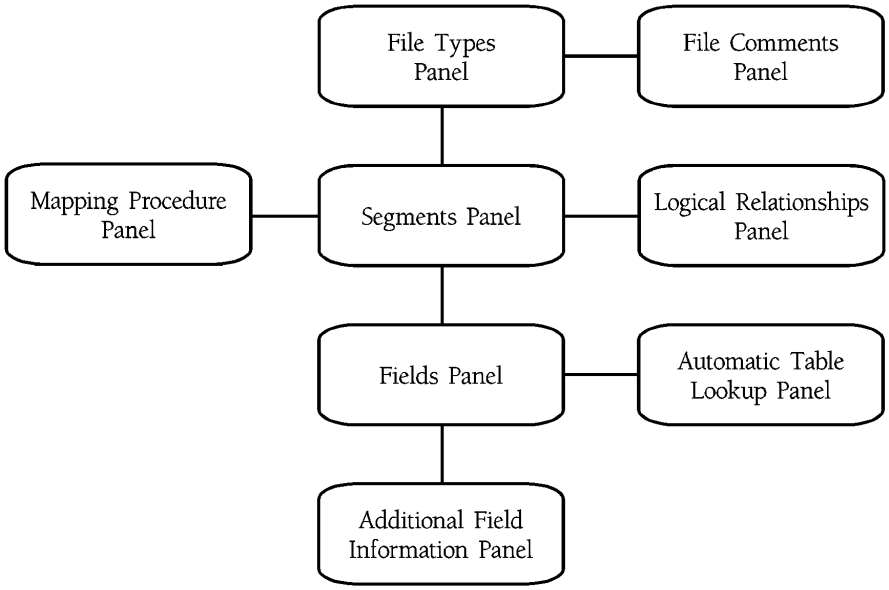


Figure 7-1 General File Definition Panel Structure Chart

File Types Panel

Panel Name: FILETYPS **Panel Identification: M9FDAPPM**

```
FILETYPS -------- ISPFJJK1.INFORM.DEFLIB(SAMPLE)------------------------
OPTION ===>

                              FILE DEFINITION: SAMPLE

                 0   COMMENTS   - Document File Definition

                 1   RELATIONAL - DB2 Or SQL Accessed Tables

                 2   KSDS       - VSAM Key Sequenced Data Set
                 3   ESDS       - VSAM Entry Sequenced Data Set
                 4   AIX        - VSAM Alternate Index Data Set

                 5   DLI        - DL/I Data Base
                 6   DLIHDAM    - HDAM DL/I Data Base

                 7   ISAMFIX    - Fixed Length ISAM File
                 8   ISAMVAR    - Variable Length ISAM File


                 9   FIXED      - Fixed Length File
                10   VARIABLE   - Variable Length File
                11   UNDEFINED  - Undefined (unformatted) File

                12   GDBI       - Generalize Database Interface
```

Figure 7-2 File Types Panel

Type of File Definition

Use the File Types panel to select the type of file definition that you want to create.

- If you are creating a new file definition, select one of the available file types. Type in the appropriate option number in the Command area and press Enter to display the Segments panel.
- If you are modifying an existing file definition, the current file type option number appears in the Command area. To continue processing, press Enter.

Exiting the File Definition Process

When you finish editing your file definition, use the END primary command from this panel to start the save process and display the Global Validation panel.

Making File Definition Comments

To enter comments about this file definition, enter Option 0 (Comments) in the Command area and press Enter. If you write over the file type option number, it automatically reappears when you return from the Comments panel.

File Comments Panel

Display the File Comments panel by selecting Option 0 (Comments) on the File Types panel and pressing Enter.

Panel Name: FILECMTS **Panel Identification: M9FDAPFP**

```
FILECMTS --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------------------
COMMAND ===>                                                  SCROLL ===> PAGE

                          COMMENTS FOR FILE DEFINITION: SAMPLE

Line Cmd                             Comment Text
  ''''
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
  ''''        ___________________________________________________________
              ___________________________________________________________
**************************** BOTTOM OF DATA **********************************
```

Figure 7-3 File Comments Panel (Comments panel)

Use the Comments panel to enter comments about your file definition. Comments are saved in the definition library. They are not part of the definition that is promoted to the background and foreground libraries.

From this panel, use the END primary command, to return to the File Types panel.

The following sections are specific to each file type. Each independent section starts with the Definition Processor Main Menu and provides directions through the panels for the specific file type.

Relational File Definitions

To edit file definitions, select Option 21 (File) from the Definition Processor Main Menu to display the Definition Library Specifications panel.

Panel Structure Chart — Relational

Complete the Definition Library Specification panel and press Enter to display the File Types panel.

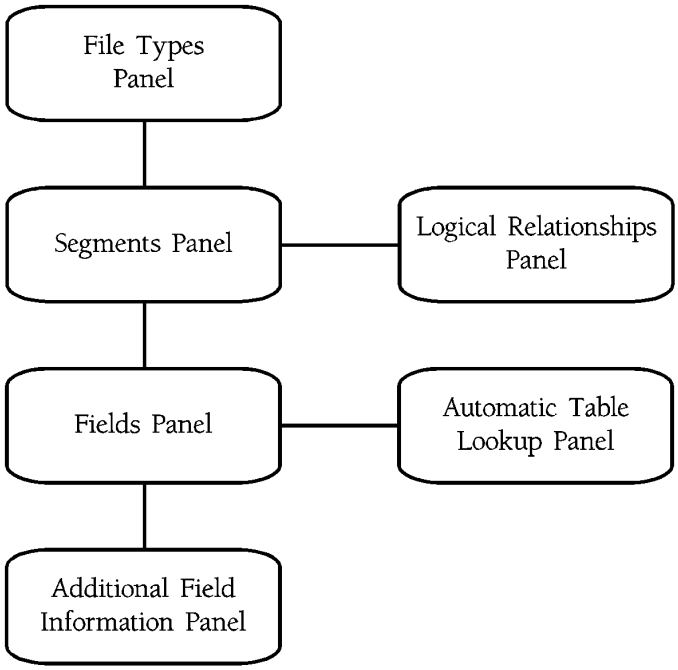


Figure 7-4 Relational File Definition Panel Structure Chart

Segments Panel — Relational

Display the Relational File Segments panel by entering Option 1 (Relational) in the File Types panel Command area and pressing Enter.

Panel Name: FILESEGR **Panel Identification: M9LSAPBP**

```
FILESEGR --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 13
COMMAND ===>                                                    SCROLL ===> CSR

                        RELATIONAL FILE DEFINITION: SAMPLE

     Buffer Size ===> _____
     Updater Id  ===> ____________    Expiration Date ===> __ / __ / __

 Line   Segment    Seg   Seg    Seg   Suppress      DB2       Corresponding
 Cmd     Name     Level  Num   Order  Dup Segs?   Auth-Id     DB2 Table Name
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ....   ________   _    ___     _       _        ________  ____________________
 ****************************** BOTTOM OF DATA ********************************
```

Figure 7-5 Segments Panel — Relational

Use this panel to provide general processing characteristics of a file and to define the logical structure of a file by creating segment entries. Once you complete a segment entry, you can use the Select line command to continue processing a segment. Selecting a segment displays the Fields panel where you can define individual data fields for a segment.

From this panel, use the END primary command to return to the File Types panel.

Segments Panel Components

The following is an explanation of the entries on this panel.

Buffer Size (required)

Specify the maximum amount of buffer storage, in bytes, required to process the logical record that will be built from the specified DB2 tables.

Enter multiples of 1024 bytes as nnnnK, where nnnn is any number.

Updater ID

This entry is optional or required, depending on the installation-specified parameters of MARKLIBP. Use this entry to track the last user to modify this definition. When you promote a definition, this information is saved in the background library as definition statistics. This information also appears on background library index listings.

Expiration Date

This is the expiration date or retention period for the file definition. Use the expiration date, in conjunction with the standard VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform Library Restore Utility, you can optionally purge expired definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at U.S. installations. International date notation can be different.
- You can also enter a retention period in the format nnnnn+.

Segment Name (required)

Enter a unique, 1- to 8-character alphanumeric name for this segment.

Segment Level (required)

Use this entry to indicate the subordination of segments within the file. Each DB2 table represents one segment. Make the specified level number correspond to the level in the logical data structure hierarchy at which the segment resides.

- Enter blank or 1 for the root segment. There can only be one root segment.
- Enter 2 to 9 for all subordinate segments.

Segment Number (required)

Enter a number between 1 and 255 that uniquely identifies the segment.

- Assign the subordinate segment a segment number larger than its parent segment, but smaller than its dependent segments.
- Assign segment numbers in sequence, top to bottom, left to right.

Segment Order

Note: Specifying Segment Order as A or D can have severe performance implications. We recommend using the default (blank).

Use this entry to specify the segment order. Enter one of the following codes:

Blank	For unspecified order or unordered segments or segments with duplicate keys.
A	For segments ordered within parent, by segment key fields in ascending sequence.
D	For segments ordered within parent, by segment key fields in descending sequence.

Suppress Duplicate Segments?

Use this entry to eliminate duplicate table rows from the logical record that is built. Enter one of the following codes:

Y	Duplicate rows are not included in the logical record. Note that any uniqueness within a table row causes the row to be included in the logical record.
N	All rows are included in the logical record.

DB2 Authorization ID

Use this entry to specify the DB2 Authorization ID of the person that created the relational table that is being used to build this segment. If all relational tables being referenced in this file definition have the same authorization ID, you can leave this entry blank.

To obtain the Authorization ID from another source, or use the default Authorization ID provided at execution time, leave this entry blank.

Corresponding DB2 Table Name (required)

Enter the name of the DB2 table that corresponds to this segment.

Logical Relationships Panel — Relational

The Logical Relationships panel displays when you use the END primary command to exit the Fields panel.

Panel Name: FILELREL **Panel Identification: M9LSAPRP**

```
FILELREL ---- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------------------
COMMAND ===>                                                  SCROLL ===> PAGE

                          LOGICAL RELATIONSHIPS FOR
              FILE: SAMPLE     SEGMENT: SEG10      TABLE: TABLE1

Line  Stmt  Logic  And/Or    Relational      Oper   Match Value Or Match Field
Cmd   Num   Level Relation   Column Name             Type     Value Or Name
''''
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
''''  ____    _      _    ____________________  __      _    ____________________
******************************* BOTTOM OF DATA ********************************
```

Figure 7-6 Logical Relationships Panel — Relational

Use the Logical Relationships panel to define the logical relationships that exist between the different relational tables that are being joined in the relational definition. Logical relationships explicitly establish the rules that VISION:Inform uses to join the relational tables that are accessed by this definition.

Complete the Logical Relationships panel for all segments below the root segment. This panel is optional for the root segment. If you use the Logical Relationships panel on the root segment, you can only compare the Relational Column Name to a constant value. It cannot be compared against another field.

When you complete the Logical Relationships panel, use the END primary command to return to the Segments panel.

Logical Relationships Panel Components

Following is an explanation of the entries on this panel.

Statement Number

Use this entry to determine the processing sequence order of the logical relationships.

- If you do not provide statement numbers, the logical relationships are processed in sequential order.
- To provide a statement number, enter up to three alpha, numeric, or alphanumeric characters.
- Do not specify duplicate sequence numbers within the same segment.

Logic Level

Use this entry to determine the sequence for processing multiple AND/OR conditions in a logical expression. The number you enter here is similar to using parentheses in an algebraic expression. When logic levels are the same or not specified, AND takes precedence. This means that (A AND B OR C) is always interpreted as ((A AND B) OR C).

Enter one of the following:

Blank	A level of 0 is assumed.
0 - 9	Indicates the number of pairs of parentheses surrounding the condition if expressed algebraically.

And/Or Relation

Use this entry to indicate the relationship between two or more statements within a logical expression. The first And/Or Relation entry of a logical expression must be blank.

Enter one of the following:

Blank, O, 0	To indicate an OR relationship between statements.
A	To indicate an AND relationship between statements.

Relational Column Name (required)

Use this entry to indicate the name of the DB2 column that is to be compared to the value specified in the Match field.

- Make the name an actual DB2 column name from the DB2 table that corresponds to the current segment. Enter the DB2 column name exactly as it is defined in the DB2 catalog.
- Do not use the assigned VISION:Inform field name (from the Fields panel, Name entry) here.

Operator (required)

Use this entry to indicate the logical operator for comparing the relational field specified in the Relational Column Name entry to the VISION:Inform field name or constant value, specified in the Value Or Match Field entry.

The operator you specify here results in a select (true) or non-select (false) condition.

- If the complete expression (composed of all the statements) is met (true), the DB2 table row is selected and becomes part of the logical record that is being built.
- If the complete expression is not met (false), the DB2 table row is not selected.

Enter one of the following operators:

- EQ — For an equal condition.
- NE — For a not equal condition.
- GT — For a greater than condition.
- GE — For a greater than or equal condition.
- LT — For a less than condition.
- LE — For a less than or equal condition.
- NL — For a null condition, (test for the non-existence of data in the field). When using this operator, the Match Value/Field entries must be left blank.
- NN — For a not null condition, (test for the existence of data in the field). When using this operator the Match Value/Field entries must be left blank.

Match Type

Use this entry to identify the type of entry that follows in the Value Or Match Field entry. Enter one of the following:

- Blank — If the Value Or Match Field entry contains a field name.
- C — If the Value Or Match Field entry contains a character string constant.
- D — If the Value Or Match Field entry contains a decimal constant.

Value or Match Field

Use this entry to specify the VISION:Inform field, or a constant value, to be compared to the DB2 column specified in the Relational Column Name entry.

- If the Match Type entry contains a blank, specify this field as the name of a VISION:Inform field name that has been defined in a higher level segment.
- If the Match Type entry contains a C, specify this field as character string data.
- If the Match Type entry contains a D, this field must specify decimal data. Use a leading sign, the digits 0 to 9, and a decimal point in decimal data. Do not use any other characters in a decimal constant.

Fields Panel — Relational

Display the Fields panel by using the Select line command to select a segment on the Relational File Segments panel.

Panel Name: FILNPL0R **Panel Identification: M9L0APBP**

```
FILNPL0R --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ------------------------ ROW 1 OF 6
COMMAND ===>                                                  SCROLL ===> CSR

                    RELATIONAL FIELD DEFINITIONS FOR
              FILE: SAMPLE     SEGMENT: SEG10      TABLE: TABLE1

                                                                  Seg  Seg No
Line  Alternate Field Name            Primary   ... Field ...   Dec  Key  Count
Cmd   DB2 Column Name                 Fld Name  Len  Loc  Typ  Plc  Num  Field
....  ________________________________ ________
      ________________________________          ___  ____  _   __    _    ___
....  ________________________________ ________
      ________________________________          ___  ____  _   __    _    ___
....  ________________________________ ________
      ________________________________          ___  ____  _   __    _    ___
....  ________________________________ ________
....  ________________________________ ________
      ________________________________          ___  ____  _   __    _    ___
....  ________________________________ ________
******************************* BOTTOM OF DATA ********************************
```

Figure 7-7 Fields Panel — Relational

Use the Fields panel to define individual data fields for the selected segment. When you complete a field entry, you can use the Select line command to continue processing a particular field.

Selecting a field row displays the Additional Field Information panel where you provide additional information about a field, such as Field Description. Completing the Additional Field Information panel is optional. The information contained on that panel is not required.

Use the END primary command in the Fields panel to display the Logical Relationships panel.

Fields Panel Components

The following is an explanation of the entries on this panel.

Alternate Field Name

Use this entry to specify an alternate field name for the field that is currently being defined. Use up to 30 characters for an alternate field names. Use alternate field names to provide more intuitive and descriptive field names.

The VISION:Inform client platforms, VISION:Bridge™ and VISION:Journey® with VISION:Inform, use the alternate field names.

- If you provide an alternate field name, the client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

DB2 Column Name

Use this field to define the mapping of data from the relational table row to the VISION:Inform logical record.

- Use this field to identify the DB2 column that is to be used to populate this field.
- This entry can also contain SQL column and scalar functions.

DB2 file definitions can contain unmapped fields. Unmapped fields are fields that are not populated from the DB2 table. Leave this entry blank for unmapped fields.

Primary Field Name (required)

Use this name to identify the field as it is being defined to VISION:Inform. Enter a unique 1- to 8-character field name.

- Start the field name with an alphabetic character.
- Specify the remaining characters of the field name as a combination of alphanumeric characters and special characters.
- Make field names unique within a file definition.

Length (required)

Use this entry to specify the length of a field in characters or bytes.

- For character fields (C), enter 1 to 255 characters.
- For Lilian date fields (D), enter 4 bytes.
- For fixed point binary fields (F), enter 1 to 4 bytes.

  1 byte: -128 to 127
  2 bytes: -32,768 to 32767
  3 bytes: -8,388,608 to 8,388,607
  4 bytes: -2,147,483,648 to 2,147,483,647

- For packed decimal fields (P), enter 1 to 15 bytes.

  Number of bytes = (number of digits + 1) / 2. If there is a remainder, round up to the next full number.

- For zoned decimal fields (Z), enter 1 to 15 bytes.

Leave this entry blank for automatic table lookup result fields.

Location (required)

Use this entry to indicate the relative position of the field within a segment. Enter a number from 1 to 9999. This value must represent the location of the field relative to the beginning of the segment. The number you specify in this entry must be the offset of the field's leading (or high order) byte, relative to 1.

- You can use the Location entry to over-define fields.
- Leave this entry blank for variable length fields and automatic table lookup result fields.

With the Auto Field Location Calculation entry on the Session Parameters panel, you can request that this entry be automatically calculated for fields contiguous within a definition.

Type

Use this entry to indicate the type of data that is contained in this field. Enter one of the following codes.

- C or blank — For character fields.
- D — For Lilian date.
- F — For fixed point binary numbers.
- P — For packed decimal numbers.
- R — For automatic table lookup result fields.
- Z — For zoned decimal numbers.

Although DB2 limits the types of data that can reside in a DB2 table, you can use any of the data types listed above when defining a logical DB2 file definition. The fields are automatically converted to the appropriate data type during the data extraction process.

Note: The VISION:Inform length of a GRAPHIC and LONG GRAPHIC string is (2*n), where n is the DB2 length of the string.

The following table shows the VISION:Inform field types and their equivalents in DB2.

DB2 Type	Length	VISION:Inform Type	Length
CHAR	1 - 254	C	1 - 255
VACHAR or LONG VACHAR	1 - 254 255	V	1 - 255
LONG VACHAR n		V	255 - 99H
DECIMAL		P	1 - 15
SMALLINT		F	1 - 2
INTEGER		F	3 - 4
FLOAT		E	4
DATE		C	10
TIME		C	8
TIMESTAMP		C	16 - 26
GRAPHIC n	1 - 1 27	C	2 - 254
LONG GRAPHIC n	128 and larger	V	256 - 99H

Decimal Places

Use this entry to indicate the number of decimal places in a type Z, P, or F numeric field. Enter a number from 0 to 9 (0 to 15 for packed fields) using the following rules. If you leave this entry blank, zero decimal places are assumed.

Type	Rule
C, D	Do not use C or D as an entry.
Z	Make this entry less than the field length.
P	Make this entry less than twice field length minus one.
F	Field length 1 — maximum 3 Field length 2 — maximum 5. Field length 3 — maximum 7. Field length 4 — maximum 9.

Segment Key Number

Use this entry to identify segment key fields. Specify every segment with at least one key field.

- You can specify up to nine key fields per segment (1 represents the highest record key and 9 the lowest record key). The key field for the first segment is also the record key. Enter a number from 1 to 9.
- You must complete the DB2 Column Name entry for Key fields.

Segment Number Count Field

Use count fields in the parent segment of variably occurring dependent segments to count the occurrences of the dependent segment.

- Count fields are optional for relational file definitions.
- If you specify a count field, its contents are not assumed to be valid before the record is retrieved.
- The actual count is determined and inserted into the count field at the time the record is read.
- You can use a count field in comparisons.
- Count fields must have a field type of P, Z, or F.

Enter the segment number of the variably occurring dependent segment associated with this count field. The segment that this field counts must be one level lower than (directly subordinate to) the segment containing the count field.

Leave this entry blank for non-count fields.

Automatic Table Lookup Panel — Relational

Display the Automatic Table Lookup panel by using the Select line command to select a result field from the Fields panel.

Panel Name: FILLA **Panel Identification: M9LAAPTL**

```
FILLA------- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------------------
COMMAND ===>
                     AUTOMATIC TABLE LOOKUP DEFINITION       FILE   : SAMPLE
                                                             SEGMENT: SEG10
                                                             FIELD  : FIELD1

                  TABLE LOOKUP SEARCH TYPE ===> _

                  SEARCH TABLE NAME        ===> ________
                  ARGUMENT FIELD NAME      ===> ________
```

Figure 7-8 Automatic Table Lookup Panel — Relational

Use the Automatic Table Lookup panel to provide additional table lookup information. Complete this panel for all result fields (field type = R).

When you complete this panel, use the END primary command to continue to the Additional Field Information panel.

Automatic Table Lookup Panel Components

The following is an explanation of the entries on this panel.

Table Lookup Search Type

Use this entry to indicate the type of table lookup being performed. Enter one of the following search types to specify the comparison condition for a successful search.

Search types B, I, N, and S are available with binary tables only.

Type	To return the result
blank or E	If the input argument is equal to the table argument.
B	If the input argument is equal to or greater than the table argument.
I	If an interpolation of the result values of the two table arguments (binary tables only) is nearest the input argument. Make the argument and result data types numeric.
N	If the input argument is equal to or nearest to the table argument. Make the argument data type numeric.
S	If the input argument is equal to or smaller than the table argument.

Search Table Name (required)

Use this entry to identify the table to be searched during the lookup process. Make the name that of a VISION:Inform table definition.

Argument Field Name (required)

Use this name to identify the field to be used as the search argument during the lookup process. Enter a field defined in this file definition.

The argument field contains the value that is compared or used to match during the lookup process. If a match is found, the table result value returns to the result field that you are currently defining.

Additional Field Information Panel — Relational

Display the Additional Field Information panel by using the Select line command to select a field from the Fields panel.

Panel Name: FILAINFO **Panel Identification: M9LNAPCH**

```
FILAINFO --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 9
COMMAND ===>

               ADDITIONAL FIELD INFORMATION FOR FIELD: FIELD1

        Output Field Length ===> __       Floating Character ===> _
        Fill Character      ===> _        Trailing Character ===> _

Alternate Field Name ===> ________________________________ <=(Long Name)
External  Field Name ===> ________________________________ <===(DB2 Column name or
                                                              IMS DBD Field Name)
Field Description
===> ____________________________________________________________________

Line Cmd      Column Heading Text
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
```

Figure 7-9 Additional Field Information Panel — Relational

Use this panel to provide additional information about a field. All the information contained on this panel is optional. When you complete this panel, use the END primary command to display the Fields panel.

Additional Field Information Panel Components

The following is an explanation of the entries on this panel.

Output Field Length

Enter the number of positions required to print this numeric field, including edit characters. If you leave this field blank, VISION:Inform computes the length for you.

Floating Character

Enter the character to print immediately to the left of the first non-blank character.

Code	Result
Blank or -	A leading blank prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative. Commas and decimal points print if decimal places are specified. A zero value, in a field where a decimal place is specified, prints as a decimal point followed by as many zeros as decimal places.
$	A floating dollar sign prints before the first value in a column when no summaries are taken. When summaries are taken, the $ also prints to the left of the summary value.
+	A leading plus sign prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative.
Z	Suppresses the printing of commas, decimal points, and leading zeros to the left of the decimal point. Minus signs print, but no space is allocated for them.
Any other Character	A floating lead character prints with the same attributes as $.

Fill Character

Enter the character to be used to replace all leading zeros in a numeric field.

Trailing Character

Use this entry to print a trailing character.

Code	Result
+	A trailing plus sign prints if the value of the field is positive. A trailing minus sign prints if the value of the field is negative.
-	A trailing minus sign prints if the value of the field is negative. Positive values are unsigned.
( )	Negative field values are enclosed in parentheses. ■ If you do not specify a fill character, the left parenthesis prints before the first significant digit or decimal point, whichever comes first. ■ If you specify a floating character and this character, both could print. The floating character prints inside the parentheses, for example ($43.50). Use only a one floating sign with the trailing parenthesis.
C	A trailing CR prints for a negative value; blanks follow a positive value.
D	A trailing DB prints for a negative value; blanks follow a positive value.
Any other character	Prints a trailing character for negative values.

Alternate Field Name (Long Name)

Use this entry to specify an alternate field name for the field that is currently being defined. Use up to 30 characters for an alternate field name. Use alternate field names to provide more intuitive and descriptive field names.

The VISION:Inform client platforms, VISION:Bridge and VISION:Journey with VISION:Inform, use the alternate field names.

- If you provide an alternate field name, the client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

External Field Name (DB2 Column name or IMS DBD Field Name)

Use this field to define the mapping of data from the relational table row to the VISION:Inform logical record.

- Use this field to identify the DB2 column that is to be used to populate this field.
- This entry can also contain SQL column and scalar functions.

DB2 file definitions can contain unmapped fields. Unmapped fields are fields that are not populated from the DB2 table. Leave this entry blank for unmapped fields.

Field Description

Use this entry to specify a field description. Use up to 70 characters in a field description. End users can view field descriptions while working in VISION:Inform client platforms.

Column Heading Text

Use this entry to create a column heading for a field. A column heading is automatically placed over a column of data on reports created by report-generating clients such as VISION:Bridge.

Enter up to nine lines of text, with a maximum of 16 characters on each line.

You can optionally use the system delimiter at the end of a line. Lines are centered over the columns based on the placement of the delimiter. Use the delimiter if trailing blanks are required after the last non-blank character; otherwise, the line is assumed to end at the last non-blank character.

VSAM (KSDS, ESDS, and AIX) File Definitions

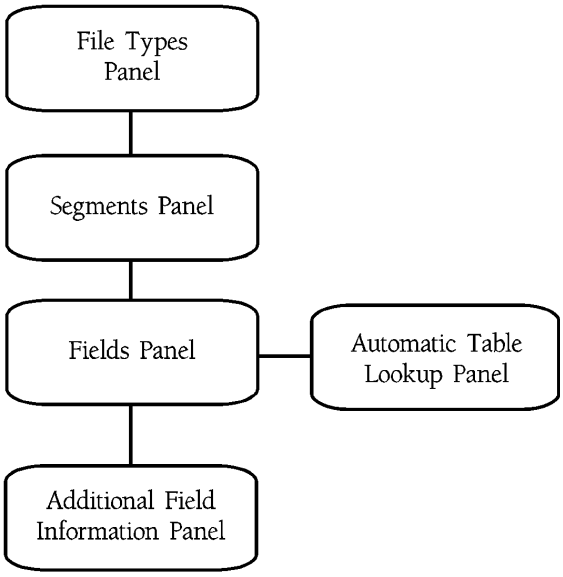
Using the Definition Processor, you can easily create the following types of VISION:Inform VSAM file definitions:

KSDS	KSDS is a Key Sequenced Data Set, a VSAM file whose records are loaded in key sequence and controlled by an index
ESDS	ESDS is an Entry Sequenced Data Set, a VSAM file whose records are loaded without respect to their contents, and whose relative byte addresses cannot change
AIX	AIX is Alternate Index.

Panel Structure Chart

To edit a KSDS, ESDS, or AIX file definition, select Option 21 (File) from the Definition Processor Main Menu to display the Definition Library Specification panel.

Complete the Definition Library Specifications panel and press Enter to display the File Types panel.



In the File Types panel Command area, enter a file type of 2, 3, or 4 and press Enter to display the VSAM (KSDS, ESDS, or AIX) Segments panel.

- If you enter Option 2 (KSDS), the Segments panel contains the title VSAM KSDS FILE DEFINITION.
- If you enter Option 3 (ESDS), the Segments panel contains the title VSAM ESDS FILE DEFINITION.
- If you enter Option 4 (AIX), the Segments panel contains the title VSAM AIX FILE DEFINITION.

Figure 7-10 VSAM (KSDS, ESDS, and AIX) File Definition Panel Structure Chart

Segment Panel — VSAM (KSDS, ESDS, and AIX)

Panel Name: FILSEGVS **Panel Identification: M9LSAPVP**

```
FILSEGVS --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 13
COMMAND ===>                                                    SCROLL ===> CSR

                          VSAM KSDS FILE DEFINITION: SAMPLE

      Buffer Size ===> _____
      Updater Id  ===> ____________   Expiration Date ===> __ / __ / __

Line      Segment     Segment      Segment     Segment     Num Of Fixed
Cmd        Name        Level       Number      Order      Occurrences
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
**********************************  BOTTOM OF DATA  ********************************
```

Figure 7-11 Segments Panel — VSAM (KSDS, ESDS, and AIX)

Use the Segments panel to provide general processing characteristics for a file. You can also use this panel to define the structure of a file. You do this by creating segment entries. Once you complete a segment entry, use the Select line command to continue processing a segment. Selecting a segment displays the Fields panel where you can define individual data fields for a segment.

From the Segments panel, use the END primary command to return to the File Types panel.

Segments Panel Components

The following is an explanation of the entries on this panel.

Buffer Size (required)

Use this entry to specify the maximum amount of buffer storage, in bytes, required to process this file.

- For VSAM KSDS and VSAM ESDS files, enter a value from 1 to 32,760. You can also specify the buffer size in the format of nnnnK, where nnnn is a number from 0 to 9999.
- For VSAM AIX files, enter the Alternate Index Control Interval size.

Updater ID

This entry is optional or required depending on your installation-specified parameters for MARKLIBP. Use it to track the last user to modify this definition. When you promote a definition, this information is saved in the background library as definition statistics. This information also appears on background library index listings.

Expiration Date

This is the expiration date or retention period for the file definition. Use the expiration date, in conjunction with the standard VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform Library Restore Utility, you can optionally purge expired file definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at all U.S. installations. International date notation can be different.
- You can also enter a retention period in the format nnnnn+.

Segment Name (required)

Enter a unique, 1- to 8-character alphanumeric name for this segment.

Segment Level (required)

Use this entry to indicate the subordination of segments within the file.

- Enter blank or 1 for the root segment. There can only be one root segment.
- Enter 2 to 9 for all subordinate segments.

Segment Number (required)

Enter a number between 1 and 255 that uniquely identifies the segment.

- Assign a subordinate segment a segment number larger than its parent segment, but smaller than its dependent segments.
- Assign segment numbers in sequence, top to bottom, left to right.

Segment Order

Use this entry to specify the segment order. Enter one of the following codes:

Blank — For unspecified order or unordered segments or segments with duplicate keys.

A — For segments ordered within parent, by segment key fields in ascending sequence.

D — For segments ordered within parent, by segment key fields in descending sequence.

To specify ascending or descending order, each segment occurrence within a parent segment must have a unique key field value.

Number of Fixed Occurrences

Use this entry to specify the number of fixed occurrences of this segment. Enter a number from 1 to 999 that indicates the fixed occurrences of this segment for each of its parent segments. Leave this entry blank for variably occurring segments.

Fields Panel — VSAM (KSDS, ESDS, and AIX)

Display the Fields panel by using the Select line command to select a segment on the Segments panel.

Panel Name: FILNPL0V **Panel Identification: M9L0APFP**

```
FILNPL0V --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 14
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                     FILE: SAMPLE     SEGMENT: SEG10

                                                                      Seg  Seg No
Line  Primary   Alternate                        ... Field ...  Dec   Key  Count
Cmd   Fld Name  Field Name                      Len  Loc  Typ  Plc   Num  Field
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
....  ________  ______________________________  ___  ____  _  __    _    ___
****************************** BOTTOM OF DATA ********************************
```

Figure 7-12 Fields Panel — VSAM (KSDS, ESDS, and AIX)

Use the Fields panel to define individual data fields for the selected segment.

When you complete a field entry, you can use the Select line command to continue processing a particular field. Selecting a field row displays the Additional Field Information panel where you can provide additional information about a field, such as an alternate field name and field description. Completing the additional field information panel is optional.

Using the END primary command from the Fields panel returns you to the Segments panel.

Fields Panel Components

The following is an explanation of each of the entries on this panel.

Primary Field Name (required)

This name identifies the field as it is being defined to VISION:Inform. Enter a unique 1- to 8-character field name.

- Start the field name with an alphabetic character.
- Specify the remaining characters of a field name as a combination of alphanumeric characters and special characters.
- Make field names unique within a file definition.

Alternate Field Name

Use this entry to specify an alternate field name for the field that is currently being defined. Specify up to 30 characters for an alternate field name. Use alternate field names to provide more intuitive and descriptive field names.

VISION:Bridge and VISION:Journey for Windows with VISION:Inform use alternate field names.

- If you provide an alternate field name, the client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

Length (required)

Use this entry to specify the length of a field in characters or bytes.

- For character fields (C), enter 1 to 255 characters.
- For Lilian date fields (D), enter 4 bytes only.
- For fixed point binary fields (F), enter 1 to 4 bytes.

  1 byte: -128 to 127
  2 bytes: -32,768 to 32767
  3 bytes: -8,388,608 to 8,388,607
  4 bytes: -2,147,483,648 to 2,147,483,647

- For packed decimal fields (P), enter 1 to 15 bytes.

  Number of bytes = (number of digits + 1) / 2. If there is a remainder, round up to the next full number.

- For zoned decimal fields (Z), enter 1 to 15 bytes.

Leave this entry blank for automatic table lookup result fields.

Location (required)

Use this entry to indicate the relative position of the field within a segment. Enter a number from 1 to 9999. This value must represent the location of the field relative to the beginning of the segment. Use the offset of the field's leading (or high order) byte, relative to 1 to specify this number.

- You can use the Location entry to over-define fields.
- Leave this entry blank for variable length fields and automatic table lookup result fields.

With the Auto Field Location Calculation entry on the Session Parameters panel, you can request that this entry be automatically calculated for fields contiguous within a definition.

Type

Use this entry to indicate the type of data that is contained in this field. Enter one of the following codes.

- C or blank —For character fields.
- D — For Lilian date fields.
- F — For fixed point binary numbers.
- P — For packed decimal numbers.
- R — For automatic table lookup result fields.
- Z — For zoned decimal numbers.

The following table shows the VISION:Inform field types and their equivalent field types in other languages.

Data Type	File Definition Type	Maximum Length	COBOL Equivalent	PL/I Equivalent	FORTRAN Equivalent
Character	C	255	DISPLAY	Character	—
Lilian	D	4 (only)	COMP	Fixed Binary	Binary
Fixed	F	4	COMP	Fixed Binary	Binary
Packed	P	15	COMP-3	Fixed Decimal	Binary
Zoned	Z	15	DISPLAY	Picture	—

Decimal Places

Use this entry to indicate the number of decimal places in a type Z, P, or F numeric field. Enter a number from 0 to 9 (0 to 15 for packed fields) using the following rules. If you leave this entry blank, zero decimal places are assumed.

Type	Rule
C, D	Do not use C or D as this entry.
Z	Make this entry less than field length.
P	Make this entry less than twice field length minus one.
F	Field length 1 — maximum 3. Field length 2 — maximum 5. Field length 3 — maximum 7. Field length 4 — maximum 9.

Segment Key Number

Use this entry to identify segment key fields. Specify at least one key field in each segment. You can specify up to nine key fields per segment (1 represents the highest record key and 9 the lowest record key). The key field for the first segment is also the record key.

- For KSDS root segment keys, enter 1 (only one key allowed).
- For ESDS and AIX file segments enter a number from 1 to 9.

Segment Number Count Field

Use count fields in the parent segment of variably occurring dependent segments to count the occurrences of the dependent segment.

- Specify a count field for each of a parent's variably occurring dependent segments.
- Count fields must have a field type of P, Z, or F.
- Do not modify count fields.
- You can use count fields in comparisons.

Enter the segment number of the variably occurring dependent segment with which this count field is associated. The segment that this field counts must be one level lower than (directly subordinate to) the segment containing the count field.

Leave this entry blank for non-count fields.

Automatic Table Lookup Panel — VSAM (KSDS, ESDS, and AIX)

Display the Automatic Table Lookup panel by using the Select line command to select a Result Field from the Fields panel.

Panel Name: FILLA **PanelIdentification:M9LAAPTL**

```
FILLA------- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------------------
COMMAND ===>
                     AUTOMATIC TABLE LOOKUP DEFINITION       FILE   : SAMPLE
                                                             SEGMENT: SEG10
                                                             FIELD  : FIELD1

                  TABLE LOOKUP SEARCH TYPE ===> _

                  SEARCH TABLE NAME        ===> ________
                  ARGUMENT FIELD NAME      ===> ________
```

Figure 7-13 Automatic Table Lookup Panel — VSAM (KSDS, ESDS, and AIX)

Use the Automatic Table Lookup panel to provide additional table lookup information. Complete this panel for all result fields (field type = R).

When you complete this panel, use the END primary command to continue to the Additional Field Information panel.

Automatic Table Lookup Panel Components

The following is an explanation of the entries on this panel.

Table Lookup Search Type

Use this entry to indicate the type of table lookup being performed. Enter one of the following search types to specify the comparison condition for a successful search.

Search types B, I, N, and S are available with binary tables only.

Type	To return the result
blank or E	If the input argument is equal to the table argument.
B	If the input argument is equal to or greater than the table argument.
I	If an interpolation of the result values of the two table arguments (binary tables only) is nearest the input argument. Make the argument and result data types numeric.
N	If the input argument is equal to or nearest to the table argument. Make the argument data type numeric.
S	If the input argument is equal to or smaller than the table argument.

Search Table Name (required)

Use this entry to identify the table to be searched during the lookup process. Enter the name a VISION:Inform table definition.

Argument Field Name (required)

Use this name to identify the field to be used as the search argument during the lookup process. Enter a field defined in this file definition.

The argument field contains the value that is compared during the lookup process. If a match is found, the table result value is returned to the argument field that you are currently defining.

Additional Field Information Panel — VSAM (KSDS, ESDS, and AIX)

Display the Additional Field Information panel by using the Select line command to select a field from the Fields panel.

Panel Name: FILAINFO **Panel Identification: M9LNAPCH**

```
FILAINFO --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------- ROW 1 OF 9
COMMAND ===>

                ADDITIONAL FIELD INFORMATION FOR FIELD: FIELD1

        Output Field Length ===> __       Floating Character ===> _
        Fill Character      ===> _        Trailing Character ===> _

Alternate Field Name ===> ________________________________ <=(Long Name)
External  Field Name ===> ________________________________ <===(DB2 Column name or
                                                              IMS DBD Field Name)
Field Description
===> ____________________________________________________________________________

Line Cmd      Column Heading Text
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
```

Figure 7-14 Additional Field Information Panel — VSAM (KSDS, ESDS, and AIX)

Use this panel to provide additional information about a field. All the information contained on this panel is optional.

When you complete this panel, use the END primary command to return to the Fields panel.

Additional Field Information Panel Components

The following is an explanation of the entries on this panel.

Output Field Length

Enter the number of positions required to print this numeric field, including edit characters. If you leave this field blank, VISION:Inform computes the length for you.

Floating Character

Enter the character to print immediately to the left of the first non-blank character.

Code	Result
Blank or -	A leading blank prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative. Commas and decimal points print if decimal places are specified. A zero value, in a field where a decimal place is specified, prints as a decimal point followed by as many zeros as decimal places.
$	A floating dollar sign prints before the first value in a column when no summaries are taken. When summaries are taken, the $ also prints to the left of the summary value.
+	A leading plus sign prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative.
Z	Suppresses the printing of commas, decimal points, and leading zeros to the left of the decimal point. Minus signs print, but no space is allocated for them.
Any other Character	A floating lead character prints with the same attributes as $.

Fill Character

Enter the character to be used to replace all leading zeros in a numeric field.

Trailing Character

Use this entry to print a trailing character.

Code	Result
+	A trailing plus sign prints if the value of the field is positive. A trailing minus sign prints if the value of the field is negative.
-	A trailing minus sign prints if the value of the field is negative; positive values are unsigned.
( )	Negative field values are enclosed in parentheses. ■ If you do not specify a fill character, the left parenthesis prints before the first significant digit or decimal point, whichever comes first. ■ If you have a floating character and you specify this character, both could print. The floating character prints inside the parentheses, for example ($43.50). Use only one floating sign with the trailing parenthesis.
C	A trailing CR prints for a negative value; blanks follow a positive value.
D	A trailing DB prints for a negative value; blanks follow a positive value.
Any other character	Prints a trailing character for negative values.

Alternate Field Name (Long Name)

Use this entry to specify an alternate field name for the field that is currently being defined. Specify up to 30 characters for an alternate field name. Use alternate field names to provide more intuitive and descriptive field names.

VISION:Bridge and VISION:Journey for Windows with VISION:Inform use alternate field names.

- If you provide an alternate field name, the client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

External Field Name (DB2 Column Name or IMS DBD Field Name)

For non-DB2 or IMS files, you can enter a name to be used later when DB2 column names are needed.

Field Description

Use this entry to specify a field description. Use up to 70 characters in a field description. VISION:Inform client platforms, VISION:Bridge and VISION:Journey for Windows with VISION:Inform can view the descriptions.

Column Heading Text

Use this entry to specify a column heading for a field. A column heading is automatically placed over a column of data on reports created by report-generating clients such as VISION:Bridge.

Enter up to nine lines of text, with a maximum of 16 characters on each line.

- You can optionally place the system delimiter at the end of a line. Lines are centered over the columns based on the placement of the delimiter.
- You can use the delimiter if trailing blanks are required after the last non-blank character; otherwise, the line is assumed to end at the last non-blank character.

DL/I and DL/I HDAM File Definitions

Using the Definition Processor, you can create VISION:Inform DL/I and DL/I HDAM file definitions.

When creating a DL/I or DL/I HDAM file definition, the information that you provide must be based upon the actual structure and content of your DL/I database. To complete your file definition, you need to obtain information about the database from the IMS control blocks. If the IMS control blocks are not available to you, obtain a description of the database contents and its structure before trying to create a file definition.

The database definition entries you make depend on the data in your database, but certain entries are required. The sample VISION:Inform CUSTOMER IMS database entries are discussed here because you need to make similar entries in your own definitions.

The following figure shows the DBD/PCB followed by a description of the entries required for the CUSTOMER IMS database.

```
     DBD       NAME=CUSTOMDB,ACCESS=(HISAM,ISAM)
     DATASET   DD1=CUSTOMER,DEVICE=3380,OVFLW=CUSTOMOV
*
     PRINT     NOGEN
     SETGM     NAME=CUSTOMER,PARENT=0,BYTES=45
     FIELD     NAME=(CUSTNI,SEQ,U),BYTES=5,START=1,TYPE=C
     FIELD     NAME=CUSTNAME,BYTES=30,START=6,TYPE=C
*
     SEGM      NAME=ORDER,PARENT=CUSTOMER,BYTES=39
     FIELD     NAME=(ORDERNO,SEQ,U),BYTES=5,START=1,TYPE=C
*
     SEGM      NAME=SHIPINV,PARENT=ORDER,BYTES=98
     FIELD     NAME=(SHIPNO,SEQ,U),BYTES=4,START=1,TYPE=C
*
     SEGM      NAME=ITEMSHIP,PARENT=SHIPINV,BYTES=24
     FIELD     NAME=(ITEMSHIP,SEQ,U),BYTES=7,START=1,TYPE=C
*
     SEGM      NAME=ITEMORD,PARENT=ORDER,BYTES=37
     FIELD     NAME=(ITEMORD,SEQ,U),BYTES=7,START=1,TYPE=C
*
     SEGM      NAME=INSTALL,PARENT=CUSTOMER,BYTES=81
     FIELD     NAME=(INSTNO,SEQ,U),BYTES=4,START=1,TYPE=C
*
     DBDGEN
     FINISH
     END

       PCB  TYPE=DB,POS=M,KEYLEN=0028,PROCOPT=AP,DBDNAME=CUSTOMDB
         SENSEG NAME=CUSTOMER
         SENSEG NAME=ORDER,PARENT=CUSTOMER
         SENSEG NAME=ITEMORD,PARENT=ORDER
         SENSEG NAME=INSTALL,PARENT=CUSTOMER
         PSBGEN LANGUAGE=ASSEM,MAXQ=1,PSBNAME=CUSTPSB
         END
```

Figure 7-15 IMS Control Blocks for the CUSTOMER IMS Database

Match the following entries to the IMS database definitions:

Segments panel DBD Name entry

Match the DBD Name entry on the Segments panel to the DBDNAME in the PCB statement. In this example, it is CUSTOMDB.

Segments panel Segment Name entries

Match the Segment Name entries on the Segments panel to the segment name in the DBD and PCB. The Segment Name entry on the Segments panel should be the value from the NAME parameter of the SENSEG statement.

Segments panel Segment Number entry

In VISION:Inform, you number segments by entering a number in the Segment Number entry on the Segments panel. Determine the sequence for segment numbers by the order of SEGM statements in the DBD (the first has the lowest number — see the DBD in Figure 7-15).

In the CUSTOMER segment in Figure 7-15, the segment number 1 is assigned. All the subsequent field definitions for this segment are in segment number 1.

Additional segments in the database must use an incremental segment number. The increment does not have to be 1. For additional information about IMS segments, see the *Advantage VISION:Inform Concepts Guide*.

Fields panel Field Location, Field Length, and Field Type entries

Using the Fields panel, you must define a field for every FIELD statement in the DBD.

On the Fields panel, the field Location, field Length, and Type entries must match the information on the corresponding FIELD statement in the DBD.

Make all field names within a VISION:Inform file definition unique. However, IMS only requires uniqueness of field names within a segment. If duplicate name conflicts arise, specify a unique VISION:Inform field name in the Field Name entry on the Fields panel.

DBD Key or Search Name entry

Then use the DBD Key or Search Name entry to specify the IMS name that this field corresponds to. The name specified in the DBD Key or Search Name NAME entry must match the corresponding name in the DBD. VISION:Inform uses the DBD Key or Search Name entry when generating DL/I Segment Search Arguments (SSAs).

Segment Key Number entry

Make the Segment Key Number entry for each field either a number from 0 to 9 (if the field is to be a key field), or the letter S (if it is a search field, but not a key field), or blank (for non-key fields).

Indicate key fields in the DBD by the SEQ,U values on the NAME parameter on the FIELD statement.

Panel Structure Chart — DL/I and DL/I HDAM

To create a file definition, select Option 21 (File) from the Definition Processor Main Menu to display the Definition Library Specifications panel.

Complete the Definition Library Specifications panel and press Enter to display the File Types panel.

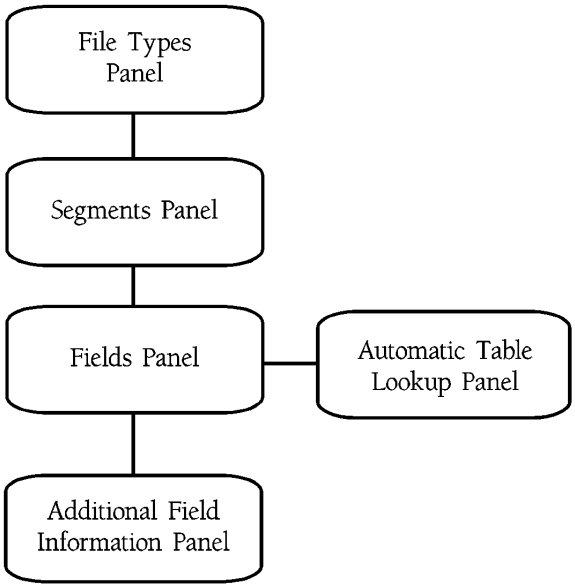


Figure 7-16 DL/I and DL/I HDAM File Definition Panel Structure Chart

Segments Panel — DL/I and DL/I HDAM

Display the Segments panel by entering Option 5 (DLI) or Option 6 (DLIHDAM) on the File Types panel and pressing Enter.

Panel Name: FILESEGD **Panel Identification: M9LSAPDP**

```
FILESEGD --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 13
COMMAND ===>                                                    SCROLL ===> CSR

                          DL/I FILE DEFINITION FOR: SAMPLE

     Buffer Size ===> _____           DBD Name        ===> ________
     Updater Id  ===> ____________    Expiration Date ===> __ / __ / __

     Line        Segment        Segment         Segment       Segment
     Cmd          Name           Level          Number         Order
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
     ....        ________         _              ___           _
******************************** BOTTOM OF DATA ********************************
```

Figure 7-17 Segments Panel — DL/I and DL/I HDAM

Use the Segments panel to provide general processing characteristics about a file. You can also use this panel to define the structure of a file by creating segment entries. Once you complete a segment entry, you can use the Select line command to continue processing a segment. Selecting a segment displays the Fields panel where you can define individual data fields for a segment.

Use the END primary command in the Segments panel to display the File Types panel.

Segments Panel Components

The following is an explanation of the entries on this panel.

Buffer Size (required)

Use this entry to specify the maximum amount of buffer storage, in bytes, that is needed to process a logical record.

DBD Name (required)

Use this entry to specify the DBD Name (Data Base Definition Name) that corresponds to this file.

Updater ID

This entry is optional or required depending on your installation-specified parameters for MARKLIBP. Use it to track the last user to modify this definition. When you promote a definition, this information is saved in the background library as definition statistics. This information also appears on the background library index listings.

Expiration Date

This is the expiration date or retention period for the file definition. Use the expiration date, in conjunction with the standard VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform Library Restore Utility, you can optionally purge expired definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at all U.S. installations. International date notation can be different.
- You can also enter a retention period in the format nnnnn+.

Segment Name (required)

Enter a unique, 1- to 8-character alphanumeric name for this segment. Make this name the same as the segment name specified in the DBD and associated PCB.

Segment Level (required)

Use this entry to indicate the subordination of segments within the file. Make the specified level number the same as the level in the data structure hierarchy at which the segment resides.

- Enter blank or 1 for the root segment. There can only be one root segment.
- Enter 2 to 9 for all subordinate segments.

Segment Number (required)

Enter a number between 1 and 255 that uniquely identifies the segment.

- Assign the subordinate segment a segment number larger than its parent segment, but smaller than its dependent segments.
- Assign segment numbers in sequence, top to bottom, left to right.

Segment Order

Use this entry to specify the segment order. Enter one of the following codes:

Blank — For unspecified order or unordered segments. Using this specification with VISION:Inform can cause a failure to retrieve the data.

A — For segments ordered within parent, by segment key fields in ascending sequence. Make each segment occurrence within a parent segment a unique key field value.

Fields Panel — DL/I and DL/I HDAM

Display the Fields panel by using the Select line command to select a segment on the Segments panel.

Panel Name: FILNPL0D **Panel Identification: M9L0APDP**

```
FILNPL0D --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ------------------------------------
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                     FILE: SAMPLE     SEGMENT: SEG10

                                                                 Seg  DBD Key   Seg No
Line  Alternate Field Name                ... Field ...   Dec    Key  Search    Count
Cmd   Primary Name                       Len  Loc  Typ   Plc    Num  Name      Field
....  ________________________________
      ________                           ___  ____  _     __     _    ________  ___
....  ________________________________
      ________                           ___  ____  _     __     _    ________  ___
....  ________________________________
      ________                           ___  ____  _     __     _    ________  ___
....  ________________________________
      ________                           ___  ____  _     __     _    ________  ___
....  ________________________________
      ________                           ___  ____  _     __     _    ________  ___
....  ________________________________
      ________                           ___  ____  _     __     _    ________  ___
****************************** BOTTOM OF DATA ********************************
```

Figure 7-18 Fields Panel — DL/I and DL/I HDAM

Use the Fields panel to define individual data fields for the selected segment.

Once you complete a field entry, you can use the Select line command to continue processing a particular field. Selecting a field row takes you to the Additional Field Information panel where you can provide additional information about a field, such as an alternate field name and field descriptions. Completing the Additional Field Information panel is optional.

Use the END primary command from the Fields panel to return to the Segments panel.

Fields Panel Components

The following is an explanation of the entries on this panel.

Alternate Field Name

Use this entry to specify an alternate field name for the field that is currently being defined. You can make alternate field names up to 30 characters in length in order to provide more intuitive and descriptive field names.

The VISION:Inform client platforms, VISION:Bridge, and VISION:Journey for Windows with VISION:Inform, use alternate names.

- If you provide an alternate field name, these client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If an alternate field name is not specified, the client uses the primary field name.

Make alternate field names unique within a file definition.

Primary Field Name (required)

Use this name to identify the field as being defined to VISION:Inform. Enter a unique 1- to 8-character field name.

- Start the field name with an alphabetic character.
- Specify the remaining characters of the field as a combination of alphanumeric characters and special characters to specify the field name.
- Make the field names unique within a file definition.

All IMS database search fields, including all segment keys, must match the names specified in the DBD.

Length (required)

Use this entry to specify the length of a field in characters or bytes.

- For character fields (C), enter 1 to 255 characters.
- For Lilian date (D), enter 4 bytes only.
- For fixed point binary fields (F), enter 1 to 4 bytes.

  1 byte: -128 to 127
  2 bytes: -32,768 to 32767
  3 bytes: -8,388,608 to 8,388,607
  4 bytes: -2,147,483,648 to 2,147,483,647

- For packed decimal fields (P), enter 1 to 15 bytes.

  Number of bytes = (number of digits + 1) / 2. If there is a remainder, round up to the next full number.

- For zoned decimal fields (Z), enter 1 to 15 bytes.

For automatic table lookup result fields, leave this entry blank.

For virtual key fields, make the length equal to the combined length of all fields specified in the SRCH parameter of the XDFLD statement in the DBD.

Location (required)

Use this entry to indicate the relative position of the field within a segment. Enter a number from 1 to 9999. This value must represent the location of the field relative to the beginning of the segment. The number you specify in this entry must be the offset of the field's leading (or high order) byte, relative to 1.

- You can use the Location entry to over-define fields.
- Leave this entry blank for virtual key fields, variable length fields, and automatic table lookup result fields.

With the Auto Field Location Calculation entry on the Session Parameters panel, you can request that this entry be automatically calculated for fields that are contiguous within a definition.

Type

Use this entry to indicate the type of data that is contained in this field. Enter one of the following codes.

- C or blank — For character fields.
- D — For Lilian date.
- F — For fixed point binary numbers.
- P — For packed decimal numbers.
- R — For automatic table lookup result fields.
- Z — For zoned decimal numbers (IMS key and search fields are converted as shown in the following table).

The IMS DL/I field codes are important only when the fields are used in SSAs. Since IMS DL/I only allows fields to be defined as character strings, hexadecimal, and packed decimal, the field type that you enter in this entry must correspond to the DL/I field type as follows:

Field Definition	IMS-DL/I Field Definition
C and Z	C
P	P
F	X
D	X

Decimal Places

Use this entry to indicate the number of decimal places in a type Z, P, or F numeric field. Enter a number from 0 to 9 (0 to 15 for packed fields), using the following rules. If you leave this entry blank, zero decimal places are assumed.

Type	Rule
C, D	Do not use these types as entries.
Z	Make this entry less than or equal to the field length.
P	Make this entry not less than twice field length minus one.
F	Field length 1 — maximum 3. Field length 2 — maximum 5. Field length 3 — maximum 7. Field length 4 — maximum 9

Segment Key Number

Use this entry to identify segment key fields. Specify every segment with at least one key field. You can specify up to nine key fields per segment (1 represents the highest record key and 9 the lowest record key). The key field for the first segment is also the record key.

- Enter a number from 1 to 9 for key fields (Use the number 1 to identify the IMS segment key field).
- Enter S, for IMS non-key search fields.
- Enter V for virtual key fields (root segment only). If you specify a virtual key field, you cannot use any other key fields except search fields in this segment. You can use virtual key fields only in the root segment (segment level = 1).
- For all other fields that are not key or search fields, leave this entry blank.

DBD Key/Search Name

Use this field when defining IMS databases with non-unique segment key and/or search field names. This entry provides VISION:Inform with the non-unique search or key field name as specified in the DBD. This name is used by VISION:Inform to construct segment search arguments only.

Enter the 1- to 8- character name which corresponds to the name specified in the DBD.

Segment Number Count Field

Use count fields in the parent segment of variably occurring dependent segments to count the occurrences of the dependent segment.

- Count fields are optional for IMS databases.
- If you specify a count field, its contents are determined by VISION:Inform and inserted into the count field when the record is read. VISION:Inform populates a count field at the time the record is read.
- You can use a count field in comparisons.
- Specify a field type of P, Z, or F for count fields.

Enter the segment number of the variably occurring dependent segment associated with this count field. The segment that this field counts must be one level lower than (directly subordinate to) the segment containing the count field.

Leave this entry blank for non-count fields.

Automatic Table Lookup Panel — DL/I and DL/I HDAM

Display the Automatic Table Lookup panel by using the Select line command to select a result field from the Fields panel.

Panel Name: FILLA **Panel Identification:M9LAAPTL**

```
FILLA------- ISPJJK1.INFORM.DEFLIB(SAMPLE) ------------------------------------
COMMAND ===>
                     AUTOMATIC TABLE LOOKUP DEFINITION       FILE   : SAMPLE
                                                             SEGMENT: SEG10
                                                             FIELD  : FIELD1

                  TABLE LOOKUP SEARCH TYPE ===> _

                  SEARCH TABLE NAME        ===> ________
                  ARGUMENT FIELD NAME      ===> ________
```

Figure 7-19 Automatic Table Lookup Panel — DL/I and DL/I HDAM

Use the Automatic Table Lookup panel to provide additional table lookup information. Complete this panel for all result fields (field type = R).

When you complete this panel, use the END primary command to continue to the Additional Field Information panel.

Automatic Table Lookup Panel Components

The following is an explanation of the entries on this panel.

Table Lookup Search Type

Use this entry to indicate the type of table lookup being performed. Enter one of the following search types to specify the comparison condition for a successful search.

Search types B, I, N, and S are available with binary tables only.

Type	To return the result
blank or E	If the input argument is equal to the table argument.
B	If the input argument is equal to or greater than the table argument.
I	If an interpolation of the result values of the two table arguments (binary tables only) is nearest the input argument. Make the argument and result data types numeric.
N	If the input argument is equal to or nearest to the table argument. Make the argument data type numeric.
S	If the input argument is equal to or smaller than the table argument.

Search Table Name (required)

Use this entry to identify the table to be searched during the lookup process. You must enter the name of a VISION:Inform table definition.

Argument Field Name (required)

Identify the name of the field to be used as the search argument during the lookup process. Enter a field name defined in this file definition.

The argument field contains the value that is compared during the lookup process. If a match is found, the table result value returns to the argument field that you are currently defining.

Additional Field Information Panel — DL/I and DL/I HDAM

Display the Additional Field Information panel by using the Select line command to select a field from the Fields panel.

Panel Name: FILAINFO **Panel Identification: M9LNAPCH**

```
FILAINFO --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------- ROW 1 OF 9
COMMAND ===>

                ADDITIONAL FIELD INFORMATION FOR FIELD: FIELD1

        Output Field Length ===> __       Floating Character ===> _
        Fill Character      ===> _        Trailing Character ===> _

Alternate Field Name ===> ________________________________ <=(Long Name)
External  Field Name ===> ________________________________ <===(DB2 Column name or
                                                              IMS DBD Field Name)
Field Description
===> ____________________________________________________________________

Line Cmd      Column Heading Text
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
```

Figure 7-20 Additional Field Information Panel — DL/I and DL/I HDAM

- Use this panel to provide additional information about a field.
- All the information contained on this panel is optional.

When you complete this panel, use the END primary command to return to the Fields panel.

Additional Field Information Panel Components

The following is an explanation of the entries on this panel.

Output Field Length

Enter the number of positions required to print this numeric field, including edit characters. If you leave this entry blank, VISION:Inform computes the length for you.

Floating Character

Enter the character to print immediately to the left of the first non-blank character.

Code	Result
Blank or -	A leading blank prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative. Commas and decimal points print if decimal places are specified. A zero value, in a field where a decimal place is specified, prints as a decimal point followed by as many zeros as decimal places.
$	A floating dollar sign prints before the first value in a column when no summaries are taken. When summaries are taken, the $ also prints to the left of the summary value.
+	A leading plus sign prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative.
Z	Supresses the printing of commas, decimal points, and leading zeros to the left of the decimal point. Minus signs print, but no space is allocated for them.
Any other character	A floating lead character prints with the same attributes as $.

Fill Character

Enter the character to replace all leading zeros in a numeric field.

Trailing Character

Use this entry to print a trailing character.

Code	Result
+	A trailing plus sign prints if the value of the field is positive. A trailing minus sign prints if the value of the field is negative.
-	A trailing minus sign prints if the value of the field is negative. Positive values are unsigned.
( )	Negative field values are enclosed in parentheses. ■ If you do not specify a fill character, the left parenthesis prints before the first significant digit or decimal point, whichever comes first. ■ If you have a floating character and you specify this character, both can print. The floating character prints inside the parentheses, for example ($43.50). Use only one floating sign with the trailing parenthesis.
C	A trailing CR prints for a negative value; blanks follow a positive value.
D	A trailing DB prints for a negative value; blanks follow a positive value.
Any other character	Prints a trailing character for negative values.

Alternate Field Name (Long Name)

Use this entry to specify an alternate field name for the field that is currently being defined. You can make alternate field names up to 30 characters in length in order to provide more intuitive and descriptive field names.

The VISION:Inform client platforms, VISION:Bridge and VISION:Journey for Windows with VISION:Inform, use alternate names.

- If you provide an alternate field name, these client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

External Field Name (DB2 Column Name or IMS DBD Field Name)

For non-DB2 or IMS files, you can enter a name to be used later when DB2 column names are needed.

Field Description

Use this entry to specify a field description. You can specify field descriptions up to 70 characters long. End users working on VISION:Inform client platforms can view field descriptions.

Column Heading Text

Use this entry to specify a column heading for a field. A column heading is automatically placed over a column of data on reports created by report-generating clients such as VISION:Bridge.

Enter up to nine lines of text, with a maximum of 16 characters on each line.

- You can optionally place a system delimiter at the end of a line. Lines are centered over the columns based on the placement of the delimiter.
- You can use the delimiter if trailing blanks are required after the last non-blank character; otherwise, the line is assumed to end at the last non-blank character.

Fixed File Definitions

You can easily create your VISION:Inform fixed file definitions with the Definition Processor. To edit a file definition, select Option 21 (File) from the Definition Processor Main Menu to display the Definition Library Specifications panel.

Panel Structure Chart — Fixed

Complete the Definition Library Specifications panel and press Enter to display the File Types panel.

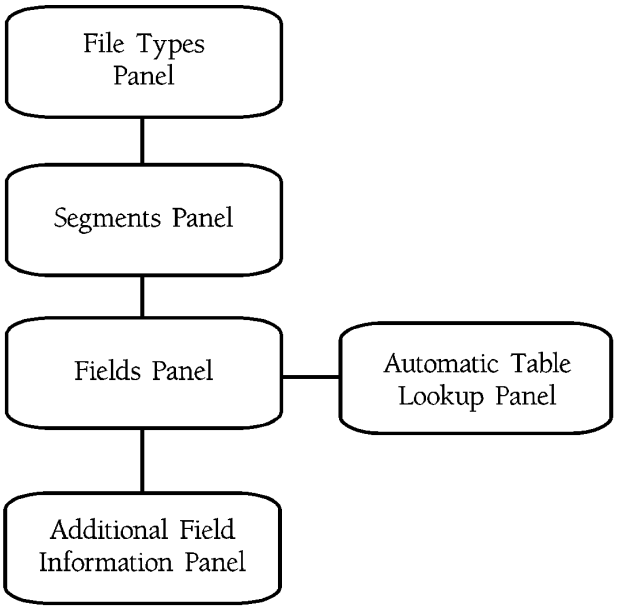


Figure 7-21 Fixed File Definition Panel Structure Chart

Segments Panel — Fixed

Display the Segments panel by selecting Option 9 (Fixed) from the File Types panel and pressing Enter.

Panel Name: FILESEGF **PanelIdentification:M9LSAPFP**

```
FILESEGF --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 12
COMMAND ===>                                                    SCROLL ===> CSR

                  FIXED LENGTH FILE DEFINITION FOR: SAMPLE

  Buffer Size     ===> _____
  Record Length   ===> ____            Records Per Block ===> ___
  Updater Id      ===> ____________    Expiration Date   ===> __/ __ / ___

Line       Segment      Segment       Segment     Segment        Fixed
Cmd         Name         Level        Number       Order      Occurrences
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
....       ________       _            ___          _            ___
****************************** BOTTOM OF DATA ********************************
```

Figure 7-22 Segments Panel — Fixed

Use the Segments panel to provide general file processing characteristics about a file. You can also define the structure of a file by creating segment entries. Once you complete a segment entry, use the Select line command to continue processing a segment. Selecting a segment displays the Fields panel where you can define individual data fields for a segment.

Use the END primary command from the Segments panel to return to the File Types panel.

Segments Panel Components

The following is an explanation of the entries on this panel.

Buffer Size (required)

Use this entry to specify the maximum amount of buffer storage, in bytes, required to process a logical record.

Record Length

Use this entry to specify the number of bytes in the data portion of a record. If you leave this entry blank, you must complete the Records Per Block entry.

Records Per Block

Use this entry to specify the number of records per block. Enter a number from 1 to 999.

Updater ID

This entry is optional or required depending on the installation-specified parameters for MARKLIBP. Use it to track the last user to modify this definition. When you promote a definition, this information is saved in the background library as definition statistics. This information also appears on the background library index listings that you can produce in the Definition Processor Utilities subsystem.

Expiration Date

This is the expiration date or retention period for the file definition. You can use the expiration date, in conjunction with the standard VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform background Library Restore Utility, you can optionally purge expired definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at all U.S. installations. International date notation can be different.
- You can also enter a retention period in the format *nnnnn*+.

Segment Name (required)

Enter a unique, 1- to 8-character alphanumeric name for this segment.

Segment Level (required)

Use this entry to indicate the subordination of segments within the file. Make the specified level number correspond to the level in the data structure hierarchy at which the segment resides.

- Enter blank or 1 for the root segment. There can only be one root segment.
- Enter 2 to 9 for all subordinate segments.

Segment Number (required)

Enter a number between 1 and 255 that uniquely identifies the segment.

- Assign a subordinate segment with a segment number larger than its parent segment, but smaller than its dependent segments.
- Assign segment numbers in sequence, top to bottom, left to right.

Segment Order

Use this entry to specify the segment order. Enter one of the following codes:

Blank	For unspecified order or unordered segments
A	For segments ordered within parent, by segment key fields in ascending sequence.
D	For segments ordered within parent, by segment key fields in descending sequence.

To specify ascending or descending order, make each segment occurrence within a parent segment a unique key field value.

Fixed Occurrences

Use this entry to specify the number of fixed occurrences of this segment in a record. Use this entry for the primary key of the segment. If you enter a number in this field, the segment key number field cannot be blank.

Enter a number from 1 to 999.

Fields Panel — Fixed

Display the Fields panel by using the Select line command to select a segment on the Segments panel.

Panel Name: FILNPL0F **Panel Identification: M9L0APIP**

```
FILNPL0F --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ------------------------------------
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                      FILE: SAMPLE     SEGMENT: SEG10


Line  Primary   Alternate                        ... Field ...  Dec  Segment
Cmd   Fld Name  Field Name                       Len  Loc  Typ  Plc  Key Num
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
....  ________  ______________________________   ___  ____  _   __     _
**************************** BOTTOM OF DATA ********************************
```

Figure 7-23 Fields Panel — Fixed

Use the Fields panel to define individual data fields for the selected segment.

Once you complete a field entry, you can use the Select line command to continue processing a particular field. Selecting a field row displays the Additional Field Information panel where you can provide additional information about a field, such as an alternate field name and field descriptions. Completing the Additional Field Information panel is optional.

Use the END primary command to return to the Segments panel.

Fields Panel Components

The following is an explanation of the entries on this panel.

Primary Field Name (required)

Use this name to identify the field as it is being defined to VISION:Inform. Enter a unique 1- to 8-character field name.

- Start a field name with an alphabetic character.
- Make the remaining characters a combination of alphanumeric characters and special characters.
- Make field names unique within a file definition.

Alternate Field Name

Use this entry to specify an alternate field name for the field that is currently being defined. You can specify alternate field names up to 30 characters in length to provide more intuitive and descriptive field names.

The VISION:Inform client platforms, VISION:Bridge and VISION:Journey for Windows with VISION:Inform, use alternate field names.

- If you provide an alternate field name, these client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

Length (required)

Use this entry to specify the length of a field in characters or bytes.

- For character fields (C), enter 1 to 255 characters.
- For Lilian date fields (D), enter 4 bytes only.
- For fixed point binary fields (F), enter 1 to 4 bytes.

  1 byte: -128 to 127
  2 bytes: -32,768 to 32767
  3 bytes: -8,388,608 to 8,388,607
  4 bytes: -2,147,483,648 to 2,147,483,647

- For packed decimal fields (P), enter 1 to 15 bytes.

  Number of bytes = (number of digits + 1) / 2. If there is a remainder, round up to the next full number.

- For zoned decimal fields (Z), enter 1 to 15 bytes.

Leave this entry blank for automatic table lookup result fields.

Location (required)

Use this entry to indicate the relative position of the field within a segment. Enter a number from 1 to 9999. This value must represent the location of the field relative to the beginning of the segment. The number you specify in this entry must be the offset of the field's leading (or high order) byte, relative to 1.

- You can use the Location entry to over-define fields.
- Leave this entry blank for Virtual Key fields, Variable Length fields and Automatic Table Lookup Result fields.

With the Auto Field Location Calculation entry on the Session Parameters panel, you can request that this entry be automatically calculated for fields contiguous within a definition.

Type

Use this entry to indicate the type of data that is contained in this field. Enter one of the following codes.

- C or blank — For character fields.
- D — For Lilian date.
- F — For fixed point binary numbers.
- P — For packed decimal numbers.
- R — For automatic table lookup result fields.
- Z — For zoned decimal numbers.

The following table shows the VISION:Inform field types and their equivalent field types in other languages.

Data Type	File Definition Type	Maximum Length	COBOL Equivalent	PL/I Equivalent	FORTRAN Equivalent
Character	C	255	DISPLAY	Character	—
Fixed	F	4	COMP	Fixed Binary	Binary
Lilian	D	4 only	COMP	Fixed Binary	Binary
Packed	P	15	COMP-3	Fixed Decimal	Binary
Zoned	Z	15	DISPLAY	Picture	—

Decimal Places

Use this entry to indicate the number of decimal places in a type Z, P, or F numeric field. Enter a number from 0 to 9 (0 to 15 for packed fields) using the following rules. If you leave this entry blank, zero decimal places are assumed.

Type	Rule
C, D	Do not use C or D as an entry.
Z	Make this entry less than or equal to the field length.
P	Make this entry less than or equal to twice field length minus one.
F	Field length 1 — maximum 3. Field length 2 — maximum 5. Field length 3 — maximum 7. Field length 4 — maximum 9.

Segment Key Number

Use this entry to identify segment key fields. Specify every segment with at least one key field. Specify up to nine key fields per segment (1 represents the highest record key and 9 the lowest record key). The key field for the first segment is also the record key.

Enter a number from 1 to 9 for key fields.

Automatic Table Lookup Panel — Fixed

Display the Automatic Table Lookup panel by using the Select line command to select a result field from the Fields panel.

Panel Name: FILLA **Panel Identification: M9LAAPTL**

```
FILLA------- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------------------
COMMAND ===>
                      AUTOMATIC TABLE LOOKUP DEFINITION       FILE   : SAMPLE
                                                              SEGMENT: SEG10
                                                              FIELD  : FIELD1

                   TABLE LOOKUP SEARCH TYPE ===> _

                   SEARCH TABLE NAME        ===> ________
                   ARGUMENT FIELD NAME      ===> ________
```

Figure 7-24 Automatic Table Lookup Panel — Fixed

Use the Automatic Table Lookup panel to provide additional table lookup information. Complete this panel for all result fields (field type = R).

When you complete this panel, use the END primary command to continue to the Additional Field Information panel.

Automatic Table Lookup Panel Components

The following is an explanation of the entries on this panel.

Table Lookup Search Type

Use this entry to indicate the type of table lookup being performed. Enter one of the following search types to specify the comparison condition for a successful search.

Search types B, I, N, and S are available with binary tables only.

Type	To return the result
blank or E	If the input argument is equal to the table argument.
B	If the input argument is equal to or greater than the table argument.
I	If an interpolation of the result values of the two table arguments (binary tables only) is nearest the input argument. Make the argument and result data types numeric.
N	If the input argument is equal to or nearest to the table argument. Make the argument data type numeric.
S	If the input argument is equal to or smaller than the table argument.

Search Table Name (required)

Use this entry to identify the table to be searched during the lookup process. Enter the name of a VISION:Inform table definition.

Argument Field Name (required)

Use this name to identify the field to be used as the search argument during the lookup process. Enter a field name of a field defined in this file definition.

The argument field contains the value that is compared during the lookup process. If a match is found, the table result value returns to the argument field that you are currently defining.

Additional Field Information Panel — Fixed

Display the Additional Field Information panel by using the Select line command to select a field from the Fields panel.

Panel Name: FILAINFO **Panel Identification: M9LNAPCH**

```
FILAINFO --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------- ROW 1 OF 9
COMMAND ===>

                ADDITIONAL FIELD INFORMATION FOR FIELD: FIELD1

         Output Field Length ===> __       Floating Character ===> _
         Fill Character      ===> _        Trailing Character ===> _

Alternate Field Name ===> _____________________________ <=(Long Name)
External  Field Name ===> _____________________________ <===(DB2 Column name or
                                                            IMS DBD Field Name)
Field Description
===> ____________________________________________________________________________

Line Cmd      Column Heading Text
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
```

Figure 7-25 Additional Field Information Panel — Fixed

Use this panel to provide additional information about a field. All the information contained on this panel is optional.

When you complete this panel, use the END primary command to return to the Fields panel.

Additional Field Information Panel Components

The following is an explanation of the entries on this panel.

Output Field length

Enter the number of positions required to print this numeric field, including edit characters. If you leave this entry blank, VISION:Inform computes the length for you.

Floating Character

Enter the character to print immediately to the left of the first non-blank character.

Code	Result
Blank or -	A leading blank prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative. Commas and decimal points print if decimal places are specified. A zero value, in a field where a decimal place is specified, prints as a decimal point followed by as many zeros as decimal places.
$	A floating dollar sign prints before the first value in a column when no summaries are taken. When summaries are taken, the $ also prints to the left of the summary value.
+	A leading plus sign prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative.
Z	Suppresses the printing of commas, decimal points, and leading zeros to the left of the decimal point. Minus signs print, but no space is allocated for them.
Any other character	A floating lead character prints with the same attributes as $.

Fill Character

Enter the character to replace all leading zeros in a numeric field.

Trailing Character

Use this entry to print a trailing character.

Code	Result
+	A trailing plus sign prints if the value of the field is positive. A trailing minus sign prints if the value of the field is negative.
-	A trailing minus sign prints if the value of the field is negative. Positive values are unsigned.
( )	Negative field values are enclosed in parentheses. ■ If you do not specify a fill character, the left parenthesis prints before the first significant digit or decimal point, whichever comes first. ■ If you specify a floating character and you specify this character, both could print. The floating character prints inside the parentheses, for example ($43.50). Use only one floating sign with the trailing parenthesis.
C	A trailing CR prints for a negative value; blanks follow a positive value.
D	A trailing DB prints for a negative value; blanks follow a positive value.
Any other character	Prints a trailing character for negative values.

Alternate Field Name (Long Name)

Use this entry to specify an alternate field name for the field that is currently being defined. You can specify alternate field names up to 30 characters in length to provide more intuitive and descriptive field names.

The VISION:Inform client platforms, VISION:Bridge and VISION:Journey for Windows with VISION:Inform, use alternate field names.

- If you provide an alternate field name, these client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

External Field Name (DB2 Column Names or IMS DBD Field Name)

For non-DB2 or IMS files, you can enter a name that can be used later when DB2 column names are needed.

Field Description

Use this entry to specify a field description. Specify field descriptions up to 70 characters long. End users working on VISION:Inform client platforms can view field descriptions.

Column Heading Text

Use this entry to specify a column heading for a field. A column heading is automatically placed over a column of data on reports created by report-generating clients, such as VISION:Bridge.

Enter up to nine lines of text, with a maximum of 16 characters on each line.

- You can optionally use the system delimiter at the end of a line. Lines are centered over the columns based on the placement of the delimiter.
- Use the delimiter if trailing blanks are required after the last non-blank character; otherwise, the line is assumed to end at the last non-blank character.

Variable File Definitions

Using the Definition Processor, you can create your VISION:Inform variable file definitions. To edit a file definition, select Option 21 (File) from the Definition Processor Main Menu to display the Definition Library Specification panel.

Panel Structure Chart — Variable

Complete the Definition Library Specification panel and press Enter to display the File Types panel.

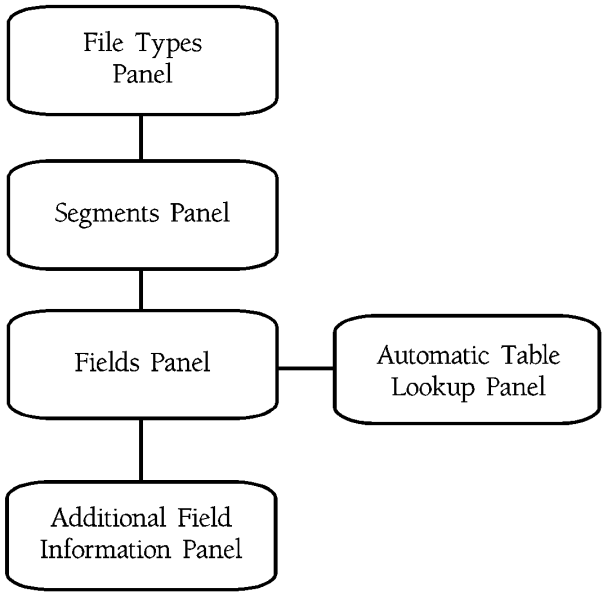


Figure 7-26 Variable File Definition Panel Structure Chart

Segments Panel — Variable

Display the Segments panel by selecting Option 10 (Variable) on the File Types panel and pressing Enter.

Panel Name: FILESEGV **Panel Identification: M9LSAPPP**

```
FILESEGV --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 13
COMMAND ===>                                                  SCROLL ===> CSR

                VARIABLE LENGTH FILE DEFINITION FOR: SAMPLE

    Buffer Size ===> _____           Record Length   ===> ____
    Updater Id  ===> ____________    Expiration Date ===> __ / __ / __

Line       Segment      Segment       Segment     Segment         Fixed
Cmd         Name        Level         Number      Order       Occurrences
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
....      ________       _             ___         _             ___
****************************** BOTTOM OF DATA ********************************
```

Figure 7-27 Segments Panel — Variable

Use the Segments panel to provide general file processing characteristics about a file. You can also define the structure of a file by creating segment entries. Once you complete a segment entry, you can use the Select line command to continue processing a segment. Selecting a segment displays the Fields panel where you can define individual data fields for a segment.

Use the END primary command from the Segments panel to return to the File Types panel.

Segments Panel Components

The following is an explanation of the entries on this panel.

Buffer Size (required)

Use this entry to specify the maximum amount of buffer storage, in bytes, needed to process this file.

Enter a value from 1 to 32,760. You can also specify the buffer size in the format of nnnnK, where nnn is a number from 1 to 999.

Record Length

Use this entry to specify the number of bytes in the data portion of a record. If you leave this entry blank, you must complete the Records Per Block entry.

Updater ID

This entry is optional or required depending on the installation-specified parameters for MARKLIBP. Use it to track the last user to modify this definition. When you promote a definition, this information is saved in the background library as definition statistics. This information also appears on the background library index listings that you can produce in the Definition Processor Utilities subsystem.

Expiration Date

This is the expiration date or retention period for the file definition. You can use the expiration date, in conjunction with the standard VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform background Library Restore Utility, you can optionally purge expired definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at all U.S. installations. International date notation can be different.
- You can also enter a retention period in the format nnnnn+.

Segment Name (required)

Enter a unique, 1- to 8-character alphanumeric name for this segment.

Segment Level (required)

Use this entry to indicate the subordination of segments within the file. Make the specified level number correspond to the level in the data structure hierarchy at which the segment resides.

- Enter blank or 1 for the root segment. There can only be one root segment.
- Enter 2 to 9 for all subordinate segments.

Segment Number (required)

Enter a number between 1 and 255 that uniquely identifies the segment.

- Assign the subordinate segment a segment number larger than its parent segment, but smaller than its dependent segments.
- Assign segment numbers in sequence, top to bottom, left to right.

Segment Order

Use this entry to specify the segment order. Enter one of the following codes:

Blank	For unspecified order or unordered segments.
A	For segments ordered within parent, by segment key fields in ascending sequence.
D	For segments ordered within parent, by segment key fields in descending sequence.

To specify ascending or descending order, each segment occurrence within a parent segment must have a unique key field value.

Fixed Occurrences

Use this entry to specify the number of fixed occurrences of this segment. Enter a number from 1 to 999 that indicates the fixed occurrences of this segment for each of its parent segments. Leave this entry blank for variably occurring segments.

Fields Panel — Variable

Display the Fields panel by using the Select line command to select a segment on the Segments panel.

Panel Name: FILNPL0V **Panel Identification: M9L0APFP**

```
FILNPL0V --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 14
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                      FILE: SAMPLE     SEGMENT: SEG10

                                                                      Seg  Seg No
Line  Primary   Alternate                        ... Field ...   Dec  Key  Count
Cmd   Fld Name  Field Name                       Len  Loc  Typ   Plc  Num  Field
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
....  ________  ______________________________   ___  ____  _    __    _    ___
****************************** BOTTOM OF DATA ********************************
```

Figure 7-28 Fields Panel — Variable

Use the Fields panel to define individual data fields for the selected segment.

Once you complete a field entry, you can use the Select line command to continue processing a particular field. Selecting a field row displays the Additional Field Information panel where you can provide additional information about a field, such as an alternate field name and field descriptions. Completing the Additional Field Information panel is optional.

Use the END primary command from the Fields panel to return to the Segments panel.

Fields Panel Components

The following is an explanation of the entries on this panel.

Primary Field Name (required)

Use this name to identify the field as being defined to VISION:Inform. Enter a unique 1- to 8-character field name.

- Start the field name with an alphabetic character.
- Specify the remaining characters of the field name as a combination of alphanumeric characters and special characters.
- Make field names unique within a file definition.

Alternate Field Name

Use this entry to specify an alternate field name for the field that is currently being defined. Specify alternate field names up to 30 characters in length to provide more intuitive and descriptive field names.

VISION:Bridge and VISION:Journey for Windows with VISION:Inform use alternate field names.

- If you provide an alternate field name, these client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

Length (required)

Use this entry to specify the length of a field in characters or bytes.

- For character fields (C), enter 1 to 255 characters.
- For Lilian date fields (D), enter 4 bytes only.
- For fixed point binary fields (F), enter 1 to 4 bytes.

  1 byte: -128 to 127
  2 bytes: -32,768 to 32767
  3 bytes: -8,388,608 to 8,388,607
  4 bytes: -2,147,483,648 to 2,147,483,647

- For packed decimal fields (P), enter 1 to 15 bytes.

  Number of bytes = (number of digits + 1) / 2. If there is a remainder, round up to the next full number.

- For zoned decimal fields (Z), enter 1 to 15 bytes.

Leave this entry blank for automatic table lookup result fields.

Location (required)

Use this entry to indicate the relative position of the field within a segment. Enter a number from 1 to 9999. This value must represent the location of the field relative to the beginning of the segment. The number you specify in this entry must be the offset of the field's leading (or high order) byte, relative to 1.

- You can use the Location entry to over-define fields.
- Leave this entry blank for variable length fields and automatic table lookup result fields.

With the Auto Field Location Calculation entry on the Session Parameters panel, you can request that this entry be automatically calculated for contiguous field within a definition.

Type

Use this entry to indicate the type of data that is contained in this field. Enter one of the following codes.

- C or blank — For character fields.
- D — For Lilian date.
- F — For fixed point binary numbers.
- P — For packed decimal numbers.
- R — For automatic table lookup result fields.
- Z — For zoned decimal numbers.

The following table shows the VISION:Inform field types and their equivalent field types in other languages.

Data Type	File Definition Type	Maximum Length	COBOL Equivalent	PL/I Equivalent	FORTRAN Equivalent
Character	C	255	DISPLAY	Character	—
Lilian	D	4 (only)	COMP	Fixed Binary	Binary
Fixed	F	4	COMP	Fixed Binary	Binary
Packed	P	15	COMP-3	Fixed Decimal	Binary
Zoned	Z	15	DISPLAY	Picture	—

Decimal Places

Use this entry to indicate the number of decimal places in a type Z, P, or F numeric field. Enter a number from 0 to 9 (0 to 15 for packed fields) using the following rules. If you leave this entry blank, zero decimal places are assumed.

Type	Rule
C, D	Do not use C or D as an entry.
Z	Make this entry less than or equal to the field length.
P	Make this entry less than or equal to twice field length minus one.
F	Field length 1 — maximum 3. Field length 2 — maximum 5. Field length 3 — maximum 7. Field length 4 — maximum 9.

Segment Key Number

Use this entry to identify segment key fields. Specify every segment with at least one key field. You can specify up to nine key fields per segment (1 represents the highest record key and 9 the lowest record key). The key field for the first segment is also the record key.

Enter a number from 1 to 9.

Segment Number Count Field

Use count fields in the parent segment of variably occurring dependent segments to count the occurrences of the dependent segment.

- Specify a parent segment with a count field for each of its variably occurring dependent segments.
- Count fields must have a field type of P, Z, or F.
- Do not modify count fields.
- You can use count fields in comparisons.

Enter the segment number of the variably occurring dependent segment associated with this count field. Specify the segment that this field counts as one level lower than (directly subordinate to) the segment containing the count field.

Leave this entry blank for non-count fields.

Automatic Table Lookup Panel — Variable

Display the Automatic Table Lookup panel by using the Select line command to select a result field from the Fields panel.

Panel Name: FILLA **Panel Identification: M9LAAPTL**

```
FILLA------- ISPJJK1.INFORM.DEFLIB(SAMPLE) -----------------------------------
COMMAND ===>
                      AUTOMATIC TABLE LOOKUP DEFINITION       FILE   : SAMPLE
                                                              SEGMENT: SEG10
                                                              FIELD  : FIELD1

                   TABLE LOOKUP SEARCH TYPE ===> _

                   SEARCH TABLE NAME        ===> ________
                   ARGUMENT FIELD NAME      ===> ________
```

Figure 7-29 Automatic Table Lookup Panel — Variable

Use the Automatic Table Lookup panel to provide additional table lookup information. Complete this panel for all result fields (field type = R).

When you complete this panel, use the END primary command to continue to the Additional Field Information panel.

Automatic Table Lookup Panel Components

The following is an explanation of the entries on this panel.

Table Lookup Search Type

Use this entry to indicate the type of table lookup being performed. Enter one of the following search types to specify the comparison condition for a successful search.

Search types B, I, N, and S are available with binary tables only.

Type	To return the result
blank or E	If the input argument is equal to the table argument.
B	If the input argument is equal to or greater than the table argument.
I	If an interpolation of the result values of the two table arguments (binary tables only) is nearest the input argument. Make the argument and result data types numeric.
N	If the input argument is equal to or nearest to the table argument. Make the argument data type numeric.
S	If the input argument is equal to or smaller than the table argument.

Search Table Name (required)

Use this entry to identify the table to be searched during the lookup process. Enter a VISION:Inform table definition.

Argument Field Name (required)

Use this name to identify the field to be used as the search argument during the lookup process. Make the field name a field defined in this file definition.

The argument field contains the value that is compared during the lookup process. If a match is found, the table result value returns to the argument field that you are currently defining.

Additional Field Information Panel — Variable

Display the Additional Field Information panel by using the Select line command to select a field from the Fields panel.

Panel Name: FILAINFO **Panel Identification: M9LNAPCH**

```
FILAINFO --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 9
COMMAND ===>

                ADDITIONAL FIELD INFORMATION FOR FIELD: FIELD1

        Output Field Length ===> __       Floating Character ===> _
        Fill Character      ===> _        Trailing Character ===> _

Alternate Field Name ===> ________________________________ <=(Long Name)
External  Field Name ===> ________________________________ <===(DB2 Column name or
                                                              IMS DBD Field Name)
Field Description
===> ____________________________________________________________________

Line Cmd      Column Heading Text
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
```

Figure 7-30 Additional Field Information Panel — Variable

Use this panel to provide additional information about a field. All the information contained on this panel is optional.

When you complete this panel, use the END primary command to return to the Fields panel.

Additional Field Information Panel Components

The following is an explanation of the entries on this panel.

Output Field Length

Enter the number of positions required to print this numeric field, including edit characters. If left blank, VISION:Inform computes the length for you.

Floating Character

Enter the character to print immediately to the left of the first non-blank character.

Code	Result
Blank or -	A leading blank prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative. Commas and decimal points print if decimal places are specified. A zero value, in a field where a decimal place is specified, prints as a decimal point followed by as many zeros as decimal places.
$	A floating dollar sign prints before the first value in a column when no summaries are taken. When summaries are taken, the $ also prints to the left of the summary value.
+	A leading plus sign prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative.
Z	Suppresses the printing of commas, decimal points, and leading zeros to the left of the decimal point. Minus signs print, but no space is allocated for them.
Any other character	A floating lead character prints with the same attributes as $.

Fill Character

Enter the character used to replace all leading zeros in a numeric field.

Trailing Character

Use this entry to print a trailing character.

Code	Result
+	A trailing plus sign prints if the value of the field is positive. A trailing minus sign prints if the value of the field is negative.
-	A trailing minus sign prints if the value of the field is negative. Positive values are unsigned.
( )	Negative field values are enclosed in parentheses. ■ If you do not specify a fill character, the left parenthesis prints before the first significant digit or decimal point, whichever comes first. ■ If you have a floating character and you specify this character, both can print. The floating character prints inside the parentheses, for example ($43.50). Use only one floating sign with the trailing parenthesis.
C	A trailing CR prints for a negative value; blanks follow a positive value.
D	A trailing DB prints for a negative value; blanks follow a positive value.
Any other character	Prints a trailing character for negative values.

Alternate Field Name (Long Name)

Use this entry to specify an alternate field name for the field that is currently being defined. Specify alternate field names up to 30 characters in length to provide more intuitive and descriptive field names.

The VISION:Inform client platforms, VISION:Bridge and VISION:Journey for Windows with VISION:Inform, use alternate field names.

- If you provide an alternate field name, these client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

External Field Name (DB2 Column Name or IMS DBD Field Name)

For non-DB2 or IMS files, you can enter a name that could be used when DB2 column names are needed.

Field Description

Use this entry to specify a field description. Specify field descriptions up to 70 characters long. End users working on VISION:Inform client platforms can view field descriptions.

Column Heading Text

Use this entry to specify a column heading for a field. A column heading is automatically placed over a column of data on reports created by report generating clients such as, VISION:Bridge.

Enter up to nine lines of text, with a maximum of 16 characters on each line.

- You can optionally use the system delimiter at the end of a line. Lines are centered over the columns based on the placement of the delimiter.
- You can use the delimiter if trailing blanks are required after the last non-blank character; otherwise, the line is assumed to end at the last non-blank character.

Undefined File Definitions

Using the Definition Processor, you can easily create your VISION:Inform undefined file definitions. To edit a file definition, select Option 21 (File) from the Definition Processor Main Menu to display the Definition Library Specification panel.

Panel Structure Chart — Undefined

Complete the Definition Library Specification panel and press Enter to display the File Types panel.

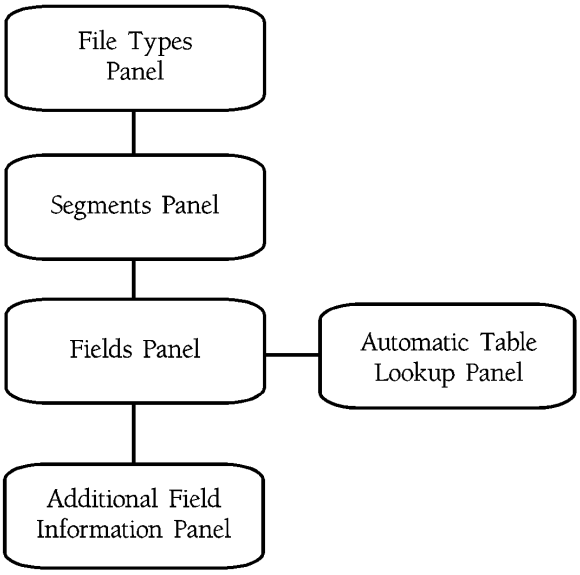


Figure 7-31 Undefined File Definition Panel Structure Chart

Segment Panel — Undefined

Display the Segments panel by selecting Option 11 (Undefined) on the File Types panel and pressing Enter.

Panel Name: FILSEGVS **Panel Identification: M9LSAPVP**

```
FILSEGVS --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 13
COMMAND ===>                                                    SCROLL ===> CSR

                          UNDEFINED FILE DEFINITION: SAMPLE

      Buffer Size ===> _____
      Updater Id  ===> ____________   Expiration Date ===> __ / __ / __

Line      Segment     Segment      Segment     Segment     Num Of Fixed
Cmd        Name        Level       Number      Order      Occurrences
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
....      ________      _           ___         _            ___
**************************** BOTTOM OF DATA ********************************
```

Figure 7-32 Segments Panel — Undefined

Use the Segments panel to provide general file processing characteristics about a file. You can also define the structure of a file by creating segment entries. Once you complete a segment entry, you can use the Select line command to continue processing a segment. Selecting a segment displays the Fields panel where you can define individual data fields for a segment.

Use the END primary command from the Segments panel to return to the File Types panel.

Segment Panel Components

The following is an explanation of the entries on this panel.

Buffer Size (required)

Specify the maximum amount of buffer storage, in bytes, required to process this file.

Updater ID

This entry is optional or required depending on the installation specified parameters for MARKLIBP. Use it to track the last user to modify this definition. When you promote a definition, this information is saved in the background

library as definition statistics. This information also appears on the background library index listings that can be produced in the Definition Processor Utilities subsystem.

Expiration Date

This is the expiration date or retention period for the file definition. You can use the expiration date, in conjunction with the standard VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform background Library Restore Utility, you can optionally purge expired file definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at all U.S. installations. International date notation may be different.
- You can also enter a retention period in the format nnnnn+.

Segment Name (required)

Enter a unique, 1- to 8-character alphanumeric name for this segment.

Segment Level (required)

Use this entry to indicate the subordination of segments within the file. Make the specified level number correspond to the level in the data structure hierarchy at which the segment resides.

- Enter blank or 1 for the root segment. There can only be one root segment.
- Enter 2 to 9 for all subordinate segments.

Segment Number (required)

Enter a number between 1 and 255 that uniquely identifies the segment.

- Assign a subordinate segment a segment number larger than its parent segment, but smaller than its dependent segments.
- Assign segment numbers in sequence, top to bottom, left to right.

Segment Order

Use this entry to specify the segment order. Enter one of the following codes:

Blank	For unspecified order or unordered segments.
A	For segments ordered within parent, by segment key fields in ascending sequence.

D For segments ordered within parent, by segment key fields in descending sequence.

To specify ascending or descending order, each segment occurrence within a parent segment must have a unique key field value.

Number of Fixed Occurrences

Use this entry to specify the number of fixed occurrences of this segment. Enter a number from 1 to 999 that indicates the fixed occurrences of this segment for each of its parent segments. Leave this entry blank for variably occurring segments.

Fields Panel — Undefined

Display the Fields panel using the Select line command to select a segment on the Segments panel.

Panel Name: FILNPL0V **Panel Identification: M9L0APFP**

```
FILNPL0V --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 14
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                     FILE: SAMPLE     SEGMENT: SEG10

                                                                      Seg  Seg No
Line  Primary   Alternate                        ... Field ...   Dec  Key  Count
Cmd   Fld Name  Field Name                       Len  Loc  Typ   Plc  Num  Field
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
....  ________  _______________________________  ___  ____  _   __   _    ___
******************************** BOTTOM OF DATA ********************************
```

Figure 7-33 Fields Panel — Undefined

Use the Fields panel to define individual data fields for the selected segment.

Once you complete a field entry, you can use the Select line command to continue processing a particular field. Selecting a field row displays the Additional Field Information panel where you can provide additional information about a field, such as an alternate field name and field descriptions. Completing the Additional Field Information panel is optional.

Use the END primary command from the Fields panel to display the Logical Relationships panel.

Fields Panel Components

The following is an explanation of the entries on this panel.

Primary Field Name (required)

Use this name to identify the field as being defined to VISION:Inform. Enter a unique 1- to 8-character field name.

- Start the field name with an alphabetic character.
- Specify the remaining characters of the field name as a combination of alphanumeric characters and special characters.
- Make field names unique within a file definition.

Alternate Field Name

Use this entry to specify an alternate field name for the field that is currently being defined. Make alternate field names up to 30 characters in length to provide more intuitive and descriptive field names.

VISION:Bridge and VISION:Journey for Windows with VISION:Inform use alternate field names.

- If you provide an alternate field name, the client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not provide an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

Length (required)

Use this entry to specify the length of a field in characters or bytes.

- For character fields (C), enter 1 to 255 characters.
- For Lilian date (D), enter 4 bytes only.
- For fixed point binary fields (F), enter 1 to 4 bytes.

  1 byte: -128 to 127
  2 bytes: -32,768 to 32767
  3 bytes: -8,388,608 to 8,388,607
  4 bytes: -2,147,483,648 to 2,147,483,647

- For packed decimal fields (P), enter 1 to 15 bytes.

  Number of bytes = (number of digits + 1) / 2. If there is a remainder, round up to the next full number.

  For zoned decimal fields (Z), enter 1 to 15 bytes.

Leave this entry blank for automatic table lookup result fields.

Location (required)

Use this entry to indicate the relative position of the field within a segment. Enter a number from 1 to 9999. This value must represent the location of the field relative to the beginning of the segment. The number you specify in this entry must be the offset of the field's leading (or high order) byte, relative to 1.

- You can use the Location entry to over-define fields.
- Leave this entry blank for variable length fields and automatic table lookup result fields.

With the Auto Field Location Calculation entry on the Session Parameters panel you can request that this entry be automatically generated for fields that are contiguous within a definition.

Type

Use this entry to indicate the type of data that is contained in this field. Enter one of the following codes.

- C or blank — For character fields.
- D — For Lilian date.
- F — For fixed point binary numbers.
- P — For packed decimal numbers.
- R — For automatic table lookup result fields.
- Z — For zoned decimal numbers.

The following table shows the VISION:Inform field types and their equivalent field types in other languages.

Data Type	File Definition Type	Maximum Length	COBOL Equivalent	PL/I Equivalent	FORTRAN Equivalent
Character	C	255	DISPLAY	Character	—
Lilian date	D	4 (only)	COMP	Fixed Binary	Binary
Fixed	F	4	COMP	Fixed Binary	Binary
Packed	P	15	COMP-3	Fixed Decimal	Binary
Zoned	Z	15	DISPLAY	Picture	—

Decimal Places

Use this entry to indicate the number of decimal places in a type Z, P, or F numeric field. Enter a number from 0 to 9 (0 to 15 for packed fields) using the following rules. If you leave this entry blank, zero decimal places are assumed.

Type	Rule
C, D	Do not use C or D as this entry.
Z	Make this entry less than or equal to the field length.
P	Make this entry less than or equal to twice field length minus one.
F	Field length 1 — maximum 3. Field length 2 — maximum 5. Field length 3 — maximum 7. Field length 4 — maximum 9.

Segment Key Number

Use this entry to identify segment key fields. Specify every segment with at least one key field. Specify up to nine key fields per segment (1 represents the highest record key and 9 the lowest record key). The key field for the first segment is also the record key.

Enter a number from 1 to 9.

Segment Number Count Field

Use count fields in the parent segment of variably occurring dependent segments to count the occurrences of the dependent segment.

- Set a parent segment to contain a count field for each of its variably occurring dependent segments.
- Count fields must have a field type of P, Z, or F.
- Do not modify count fields.
- You can use count fields in comparisons.

Enter the segment number of the variably occurring dependent segment associated with this count field. Make the segment that this field counts one level lower than (directly subordinate to) the segment containing the count field.

Leave this entry blank for non-count fields.

Automatic Table Lookup Panel — Undefined

Display the Automatic Table Lookup panel by using the Select line command to select a result field from the Fields panel.

Panel Name: FILLA **Panel Identification: M9LAAPTL**

```
FILLA------- ISPJJK1.INFORM.DEFB(SAMPLE) ------------------------------------
COMMAND ===>
                     AUTOMATIC TABLE LOOKUP DEFINITION       FILE   : SAMPLE
                                                             SEGMENT: SEG10
                                                             FIELD  : FIELD1

                  TABLE LOOKUP SEARCH TYPE ===> _

                  SEARCH TABLE NAME        ===> ________
                  ARGUMENT FIELD NAME      ===> ________
```

Figure 7-34 Automatic Table Lookup Panel — Undefined

Use the Automatic Table Lookup panel to provide additional table lookup information. Complete this panel for all result fields (field type = R).

When you complete this panel, use the END primary command to continue to the Additional Field Information panel.

Automatic Table Lookup Panel Components

The following is an explanation of the entries on this panel.

Table Lookup Search Type

Use this entry to indicate the type of table lookup being performed. Enter one of the following search types to specify the comparison condition for a successful search.

Search types B, I, N, and S are available with binary tables only.

Type	To return the result
blank or E	If the input argument is equal to the table argument.
B	If the input argument is equal to or greater than the table argument.
I	If an interpolation of the result values of the two table arguments (binary tables only) is nearest the input argument. Make the argument and result data types numeric.
N	If the input argument is equal to or nearest to the table argument. Make the argument data type numeric.
S	If the input argument is equal to or smaller than the table argument.

Search Table Name (required)

Use this entry to identify the table to be searched during the lookup process. Enter the name of a VISION:Inform table definition.

Argument Field Name (required)

Use this name to identify the field to be used as the search argument during the lookup process. Make the field name a field defined in this file definition.

The argument field contains the value that is searched for during the lookup process. If a match is found, the table result value returns to the argument field that you are currently defining.

Additional Field Information Panel — Undefined

Display the Additional Field Information panel by using the Select line command to select a field from the Fields panel.

Panel Name: FILAINFO **Panel Identification: M9LNAPCH**

```
FILAINFO --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------- ROW 1 OF 9
COMMAND ===>

                ADDITIONAL FIELD INFORMATION FOR FIELD: FIELD1

        Output Field Length ===> __       Floating Character ===> _
        Fill Character      ===> _        Trailing Character ===> _

Alternate Field Name ===> ________________________________ <=(Long Name)
External  Field Name ===> ________________________________ <===(DB2 Column name or
                                                              IMS DBD Field Name)
Field Description
===> ____________________________________________________________________________

Line Cmd      Column Heading Text
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
```

Figure 7-35 Additional Field Information Panel — Undefined

Use this panel to provide additional information about a field. All the information contained on this panel is optional.

When you complete this panel, use the END primary command to return to the Fields panel.

Additional Field Information Panel Components

The following is an explanation of the entries on this panel.

Output Field Length

Enter the number of positions required to print this numeric field, including edit characters. If you leave this field blank, VISION:Inform computes the length for you.

Floating Character

Enter the character to print immediately to the left of the first non-blank character.

Code	Result
Blank or -	A leading blank prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative. Commas and decimal points print if decimal places are specified. A zero value, in a field where a decimal place is specified, prints as a decimal point followed by as many zeros as decimal places.
$	A floating dollar sign prints before the first value in a column when no summaries are taken. When summaries are taken, the $ also prints to the left of the summary value.
+	A leading plus sign prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative.
Z	Suppresses the printing of commas, decimal points, and leading zeros to the left of the decimal point. Minus signs print, but no space is allocated for them.
Any other character	A floating lead character prints with the same attributes as $.

Fill Character

Enter the character used to replace all leading zeros in a numeric field.

Trailing Character

Use this entry to print a trailing character.

Code	Result
+	A trailing plus sign prints if the value of the field is positive. A trailing minus sign prints if the value of the field is negative.
-	A trailing minus sign prints if the value of the field is negative. Positive values are unsigned.
( )	Negative field values are enclosed in parentheses. ■ If you do not specify a fill character, the left parenthesis prints before the first significant digit or decimal point, whichever comes first. ■ If you have a floating character and you specify this character, both may print. The floating character prints inside the parentheses, for example ($43.50). Use only one floating sign with the trailing parenthesis.
C	A trailing CR prints for a negative value; blanks follow a positive value.
D	A trailing DB prints for a negative value; blanks follow a positive value.
Any other character	Prints a trailing character for negative values.

Alternate Field Name (Long Name)

Use this entry to specify an alternate field name for the field that is currently being defined. Make alternate field names up to 30 characters in length to provide more intuitive and descriptive field names.

VISION:Bridge and VISION:Journey for Windows with VISION:Inform use alternate field names.

- If you provide an alternate field name, the client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not provide an alternate field name, the client uses the primary field name.

Make alternate field names unique within a file definition.

External Field Name (DB2 Column Name or IMS DBD Field Name)

For non-DB2 or IMS files, you can enter a name that could be used when DB2 column names are needed.

Field Description

Use this entry to specify a field description. Make field descriptions up to 70 characters long. Field descriptions can be viewed by end users working on VISION:Inform client platforms.

Column Heading Text

Use this entry to specify a column heading for a field. A column heading is automatically placed over a column of data on reports created by report-generating clients, such as VISION:Bridge.

Enter up to nine lines of text, with a maximum of 16 characters on each line.

- You can optionally place the system delimiter at the end of a line. Lines are centered over the columns based on the placement of the delimiter.
- You can use the delimiter if trailing blanks are required after the last non-blank character; otherwise, the line is assumed to end at the last non-blank character.

GDBI File Definitions

Using the Definition Processor, you can create VISION:Inform GDBI file definitions. To edit a file definition, select Option 21(File) from the Definition Processor Main Menu to display the Definition Library Specification panel.

Panel Structure Chart — GDBI

Complete the Definition Library Specification panel and press Enter to display the File Types panel.

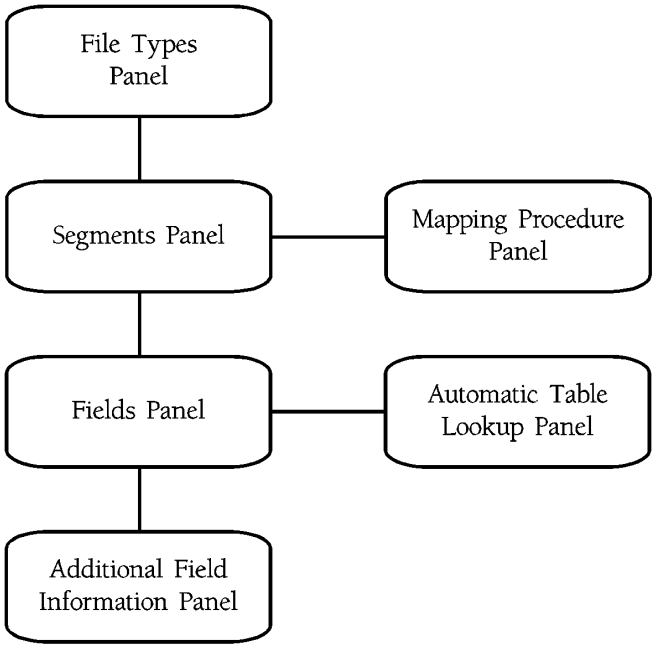


Figure 7-36 GDBI File Definition Panel Structure Chart

Segments Panel — GDBI

Display the Segments panel by selecting Option 12 (GDBI) on the File Types panel and pressing Enter.

Panel Name: FILSEGG **Panel Identification: M9LSAPGP**

```
FILESEGG---- ISPJJK1.INFORM.DEFLIB(SAMPLE) ------------------------ ROW 1 OF 5
COMMAND ===>                                                    SCROLL ===> CSR
                            GDBI FILE DEFINITION                FILE   : SAMPLE

   RECORD LENGTH           ===> _____
   MAPPING INITIALIZATION  ===> ________     FILE ID         ===> ________
   MAPPING TERMINATION     ===> ________     EXPIRATION DATE ===> __ / __ / __
                                             USER DATA       ===> ___________

Line     Segment    Hier     Seg    Seg       Procedure          Procedure
Cmd       Name      Level    Num    Ord    Command   Name     Command   Name
....     ________     _      ___     _     GETFKEY  ________ GETFIRST ________
                                           GETNEXT  ________ GETKEY   ________
....     ________     _      ___     _     GETFKEY  ________ GETFIRST ________
                                           GETNEXT  ________ GETKEY   ________
....     ________     _      ___     _     GETFKEY  ________ GETFIRST ________
                                           GETNEXT  ________ GETKEY   ________
....     ________     _      ___     _     GETFKEY  ________ GETFIRST ________
                                           GETNEXT  ________ GETKEY   ________
....     ________     _      ___     _     GETFKEY  ________ GETFIRST ________
                                           GETNEXT  ________ GETKEY   ________
****************************** BOTTOM OF DATA ******************************
```

Figure 7-37 Segments Panel — GDBI

Use the Segments panel to provide general file processing characteristics about a file. You can also define the structure of a file by creating segment entries. Once you complete a segment entry, you can use the Select line command to continue processing a segment. Selecting a segment displays to the Fields panel where you can define individual data fields for a segment.

Use the END primary command from the Segments panel to return you to the File Types panel.

Segments Panel Components

The following is an explanation of the entries on this panel.

Record Length

Use this entry to specify the number of bytes in the data portion of a record.

Mapping Initialization Procedure

Use this entry to specify the name of a mapping initialization request. Enter the name of a VISION:Inform procedure definition.

Mapping Termination Procedure

Use this entry to specify the name of a mapping termination procedure. Enter the name of a VISION:Inform procedure definition.

File ID

Use the File ID entry to assign a unique identifier to this file definition. You can access this identifier by a mapping procedure, using the VISION:Inform FILEID system field, to determine the file definition that is being processed.

Expiration Date

This is the expiration date or retention period for the file definition. You can use the expiration date, in conjunction with the standard VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform Library Restore Utility, you can optionally purge expired definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at all U.S. installations. International date notation can be different.
- You can also enter a retention period in the format nnnnn+.

User Data

This entry is optional or required depending on the installation-specified parameters for MARKLIBP. Use it to track the last user to modify this definition. When you promote a definition, this information is saved in the background library as definition statistics. This information also appears on the background library index listings that can be produced in the Definition Processor Utilities subsystem.

Segment Name (required)

Enter a unique, 1- to 8-character alphanumeric name for this segment.

Hierarchy Level (required)

Use this entry to indicate the subordination of segments within the file. Make the specified level number correspond to the level in the data structure hierarchy at which the segment resides.

- Enter blank or 1 for the root segment. There can only be one root segment.
- Enter 2 to 9 for all subordinate segments.
- Enter V to create a virtual segment.

Segment Number (required)

Enter a number between 1 and 255 to uniquely identify the segment. Make a subordinate segment a segment number larger than its parent segment, but smaller than its dependent segments.

Assign segment numbers in sequence, top to bottom, left to right.

Segment Order

Use this entry to specify the segment order. Enter one of the following codes:

Blank	For unspecified order or unordered segments.
A	For segments ordered within parent, by segment key fields in ascending sequence.
D	For segments ordered within parent, by segment key fields in descending sequence.

To specify ascending or descending order, each segment occurrence within a parent segment must have a unique key field value.

Procedure Command/Procedure Name

For each segment, specify the mapping procedure to be invoked when the I/O function is needed for the segment.

GETFKEY

Enter the name of the mapping procedure to be linked with the GETFKEY command. The GETFKEY command gets the first segment with a key value equal to or greater than the supplied start search key value. If you leave this entry blank, it results in a segment not found condition.

GETFIRST

Enter the name of the mapping procedure to be linked with the GETFIRST command. The GETFIRST command gets the first segment within a parent. If you leave this entry blank, it results in a segment not found condition.

GETNEXT

Enter the name of the mapping procedure which is to be linked with the GETNEXT command. The GETNEXT command gets the next occurrence of a segment. If you leave this entry blank, it results in a segment not found condition.

GETKEY

Enter the name of the mapping procedure to be linked with the GETKEY command. The GETKEY command gets the segment whose key value matches the supplied key value. If you leave this entry blank, it results in a segment not found condition.

Fields Panel — GDBI

Display the Fields panel by using the Select line command to select a segment on the Segments panel.

Panel Name: FILNPL0G **Panel Identification: M9L0APGP**

```
FILNPL0G --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 14
COMMAND ===>                                                  SCROLL ===> CSR

                          FIELD DEFINITIONS FOR
                      FILE: SAMPLE     SEGMENT: SEG10

                                                                        Seg  Seg No
Line  Primary   Alternate                        ... Field ...   Dec   Key  Count
Cmd   Fld Name  Field Name                      Len  Loc  Typ   Plc   Num  Field
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
....  ________  ______________________________  ___  ____  _   __    _    ___
****************************** BOTTOM OF DATA ********************************
```

Figure 7-38 Fields Panel — GDBI

Use the Fields panel to define individual data fields for the selected segment.

Once you complete a field entry, you can use the Select line command to continue processing a particular field. Selecting a field row displays the Additional Field Information panel where you can provide additional information about a field, such as an alternate field name and field descriptions. Completing the Additional Field Information panel is optional.

Use the END primary command from the Fields panel to display the Logical Relationships panel.

Fields Panel Components

The following is an explanation of the entries on this panel.

Primary Field Name (required)

Use this name to identify the field as defined to VISION:Inform. Enter a unique 1- to 8-character field name.

- Start the field name with an alphabetic character.
- Make the remaining characters of the field name a combination of alphanumeric characters and special characters.
- Make field names unique within a file definition.

Alternate Field Name

Use this entry to specify an alternate field name for the field that is currently being defined. Specify alternate field names up to 30 characters in length to provide more intuitive and descriptive field names.

The VISION:Inform client platforms, VISION:Bridge and VISION:Journey for Windows with VISION:Inform, use alternate field names.

- If you provide an alternate field name, these client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field be unique within a file definition.

Length (required)

Use this entry to specify the length of a field in characters or bytes.

- For character fields (C), enter 1 to 255 characters.
- For Lilian date (D), enter 4 bytes only.
- For fixed point binary fields (F), enter 1 to 4 bytes.

  1 byte: -128 to 127
  2 bytes: -32,768 to 32767
  3 bytes: -8,388,608 to 8,388,607
  4 bytes: -2,147,483,648 to 2,147,483,647

- For packed decimal fields (P), enter 1 to 15 bytes.

  Number of bytes = (number of digits + 1) / 2. If there is a remainder, round up to the next full number.

- For zoned decimal fields (Z), enter 1 to 15 bytes.

Leave this entry blank for automatic table lookup result fields.

Location (required)

Use this entry to indicate the relative position of the field within a segment. Enter a number from 1 to 9999. This value must represent the location of the field relative to the beginning of the segment. The number you specify in this entry must be the offset of the field's leading (or high order) byte, relative to 1.

- You can use the Location entry to over-define fields.
- Leave this entry blank for virtual key fields, variable length fields, and automatic table lookup result fields.

With the Auto Field Location Calculation feature on the Session Parameters panel you can request that this entry be automatically calculated for fields that are contiguous within a definition.

Type

Use this entry to indicate the type of data that is contained in this field. Enter one of the following codes.

- C or blank — For character fields.
- D — For Lilian date.
- F — For fixed point binary numbers.
- P — For packed decimal numbers.
- R — For automatic table lookup result fields.
- Z — For zoned decimal numbers.

The following table shows the VISION:Inform field types and their equivalent field types in other languages.

Data Type	File Definition Type	Maximum Length	COBOL Equivalent	PL/I Equivalent	FORTRAN Equivalent
Character	C	255	DISPLAY	Character	—
Lilian	D	4 (only)	COMP	Fixed Binary	Binary
Fixed	F	4	COMP	Fixed Binary	Binary
Packed	P	15	COMP-3	Fixed Decimal	Binary
Zoned	Z	15	DISPLAY	Picture	—

Decimal Places

Use this entry to indicate the number of decimal places in a type Z, P, or F numeric field. Enter a number from 0 to 9 (0 to 15 for packed fields) using the following rules. If you leave this entry blank, zero decimal places are assumed.

Type	Rule
C, D	Do not use C or D as an entry.
Z	Make this entry less than or equal to the field length.
P	Make this entry less than or equal to twice field length minus one.
F	Field length 1 — maximum 3. Field length 2 — maximum 5. Field length 3 — maximum 7. Field length 4 — maximum 9.

Segment Key Number

Use this entry to identify segment key fields. Specify every segment with at least one key field. Specify up to nine key fields per segment (1 represents the highest record key and 9 the lowest record key). The key field for the first segment is also the record key.

Enter a number from 1 to 9.

Segment Number Count Field

Use count fields in the parent segment of variably occurring dependent segments to count the occurrences of the dependent segment.

- Specify a parent segment with a count field for each of its variably occurring dependent segments.
- Count fields must have a field type of P, Z, or F.
- These fields are automatically updated by VISION:Inform.
- Do not modify count fields.
- You can use count fields in comparisons.

Enter the segment number of the variably occurring dependent segment associated with this count field. Specify the segment that this field counts one level lower than (directly subordinate to) the segment containing the count field.

Leave this entry blank for non-count fields.

Automatic Table Lookup Panel — GDBI

Display the Automatic Table Lookup panel by using the Select line command to select a result field from the Fields panel.

Panel Name: FILLA **Panel Identification: M9LAAPTL**

```
FILLA------- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------------------
COMMAND ===>
                     AUTOMATIC TABLE LOOKUP DEFINITION       FILE   : SAMPLE
                                                             SEGMENT: SEG10
                                                             FIELD  : FIELD1

                  TABLE LOOKUP SEARCH TYPE ===> _

                  SEARCH TABLE NAME        ===> ________
                  ARGUMENT FIELD NAME      ===> ________
```

Figure 7-39 Automatic Table Lookup Panel — GDBI

Use the Automatic Table Lookup panel to provide additional table lookup information. Complete this panel for all result fields (field type = R).

When you complete this panel, use the END primary command to continue to the Additional Field Information panel.

Automatic Table Lookup Panel Components

The following is an explanation of each of the entries on this panel.

Table Lookup Search Type

Use this entry to indicate the type of table lookup being performed. Enter one of the following search types to specify the comparison condition for a successful search.

Search types B, I, N, and S are available with binary tables only.

Type	To return the result
blank or E	If the input argument is equal to the table argument.
B	If the input argument is equal to or greater than the table argument.
I	If an interpolation of the result values of the two table arguments (binary tables only) is nearest the input argument. Make the argument and result data types numeric.
N	If the input argument is equal to or nearest to the table argument. Make the argument data type numeric.
S	If the input argument is equal to or smaller than the table argument.

Search Table Name (required)

Use this entry to identify the table to be searched during the lookup process. The name you enter must be the name of a VISION:Inform table definition.

Argument Field Name (required)

Use this name to identify the field to be used as the search argument during the lookup process. The field name you enter must be a field defined in this file definition.

The argument field contains the value that is searched for during the lookup process. If a match is found, the table result value is returned to the argument field that you are currently defining.

Additional Field Information Panel — GDBI

Display the Additional Field Information panel by using the Select line command to select a field from the Fields panel.

Panel Name: FILAINFO **PanelIdentification: M9LNAPCH**

```
FILAINFO --- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------- ROW 1 OF 9
COMMAND ===>

               ADDITIONAL FIELD INFORMATION FOR FIELD: FIELD1

        Output Field Length ===> __       Floating Character ===> _
        Fill Character      ===> _        Trailing Character ===> _

Alternate Field Name ===> ________________________________ <=(Long Name)
External  Field Name ===> ________________________________ <===(DB2 Column name or
                                                              IMS DBD Field Name)
Field Description
===> ____________________________________________________________________________

Line Cmd      Column Heading Text
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
 ....          ________________
```

Figure 7-40 Additional Field Information Panel — GDBI

Use this panel to provide additional information about a field. All the information contained on this panel is optional.

When you complete this panel, use the END primary command to return to the Fields panel.

Additional Field Information Panel Components

The following is an explanation of each of the entries on this panel.

Output Field Length

Enter the number of positions required to print this numeric field, including edit characters. If left blank, VISION:Inform computes the length for you.

Floating Character

Enter the character to print immediately to the left of the first non-blank character.

Code	Result
Blank or -	A leading blank prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative. Commas and decimal points print if decimal places are specified. A zero value, in a field where a decimal place is specified, prints as a decimal point followed by as many zeros as decimal places.
$	A floating dollar sign prints before the first value in a column when no summaries are taken. When summaries are taken, the $ also prints to the left of the summary value.
+	A leading plus sign prints if the value of the field is positive. A leading minus sign prints if the value of the field is negative.
Z	Suppresses the printing of commas, decimal points, and leading zeros to the left of the decimal point. Minus signs print, but no space is allocated for them.
Any other character	A floating lead character prints with the same attributes as $.

Fill Character

Enter the character used to replace all leading zeros in a numeric field.

Trailing Character

Use this entry to print a trailing character.

Code	Result
+	A trailing plus sign prints if the value of the field is positive. A trailing minus sign prints if the value of the field is negative.
-	A trailing minus sign prints if the value of the field is negative. Positive values are unsigned.
( )	Negative field values are enclosed in parentheses. ■ If you do not specify a fill character, the left parenthesis prints before the first significant digit or decimal point, whichever comes first. ■ If you specify a floating character and you specify this character, both can print. The floating character prints inside the parentheses, for example ($43.50). Use only one floating sign with the trailing parenthesis.
C	A trailing CR prints for a negative value; blanks follow a positive value.
D	A trailing DB prints for a negative value; blanks follow a positive value.
Any other character	Prints a trailing character for negative values.

Alternate Field Name (Long name)

Use this entry to specify an alternate field name for the field that is currently being defined. Specify alternate field names up to 30 characters in length to provide more intuitive and descriptive field names.

VISION:Bridge and VISION:Journey for Windows with VISION:Inform use alternate field names.

- If you provide an alternate field name, these client end users see the alternate field name, rather than the primary 8-character field name, when creating data extraction requests.
- If you do not specify an alternate field name, the client uses the primary field name.

Make alternate field be unique within a file definition.

External Field Name (DB2 Column Name or IMS DBD Field Name)

For non-DB2 or IMS files, you can enter a name to be used later when DB2 column names are needed.

Field Description

Use this entry to specify a field description. Specify field descriptions up to 70 characters long. End users working on VISION:Inform client platforms can view field descriptions.

Column Heading Text

Use this entry to specify a column heading for a field. A column heading is automatically placed over a column of data on reports created by report-generating clients, such as VISION:Bridge.

Enter up to nine lines of text, with a maximum of 16 characters on each line.

- You can optionally place the system delimiter at the end of a line. Lines are centered over the columns based on the placement of the delimiter.
- You can use the delimiter if trailing blanks are required after the last non-blank character; otherwise, the line is assumed to end at the last non-blank character.

Chapter

8

Creating Logical Data Views

Logical data view definitions enable VISION:Inform to access different databases simultaneously.

You create a logical data view to view the data in a way that is meaningful to your application (which is not necessarily the way the data is physically organized). Think of the logical data view as an extension of the DB2 join capability. It provides you the means to join separate physical data files of any type, including DB2 tables, in the same way that DB2 provides you the means to join separate DB2 tables.

You define logical data views by entering information on a series of panels that specify the logical data view definition characteristics and structure.

Use the following panels to create a logical data view:

- Logical Data View Menu
- Files Panel
- Where Statement Panel (DB2 files only)
- Alias Panel
- Procedures Panel
- Comments Panel (optional)

Panel Structure Chart

Note: LDV is the acronym for logical data view.

Selecting Option 22 (LDV) from the Definition Processor Main Menu displays the Definition Library Specification panel. Complete the Definition Library Specification panel to display the Logical Data View Menu.

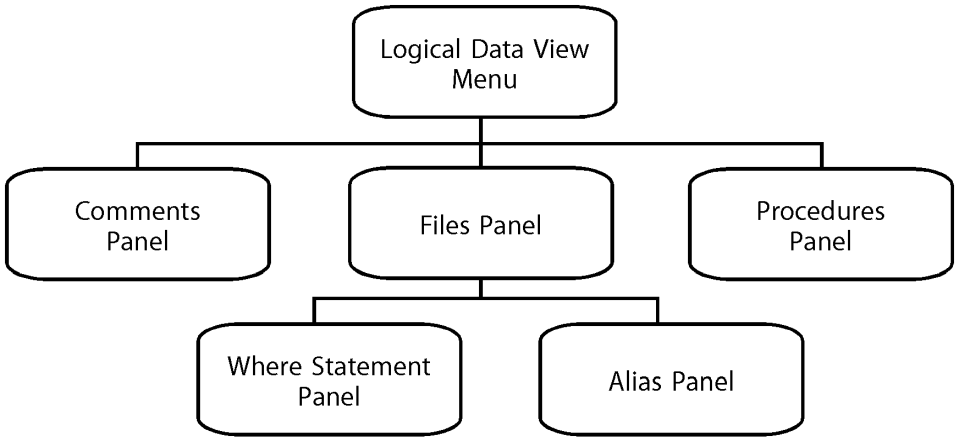


Figure 8-1 Logical Data View Subsystem Panel Structure Chart

Logical Data View Menu

Panel Name: LDVMENU **Panel Identification: M9DBAPPM**

```
LDVMENU ----- ISPJJK1.INFORM.DEFLIB(SAMPLE) --------------------------------
OPTION ===>

                    LOGICAL DATA VIEW DEFINITION: SAMPLE

          1   COMMENTS   - Document Logical Dataview

          2   FILES      - Specify Files To Be Logically Joined

          3   PROCEDURES - Specify Procedures (and/or requests) To Be Invoked
```

Figure 8-2 Logical Data View Menu

To complete this panel, enter one of the logical data view option numbers in the Command area and press Enter.

When you complete the definition, use the END primary command to start the save process.

Comments Panel

Display the Logical Data View Comments panel by selecting Option 1 (Comments) from the Logical Data View Menu.

Panel Name: LDVPROL **Panel Identification: M9DBAPAC**

```
LDVPROL---- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------------------------
COMMAND ===>                                                 SCROLL ===> CSR
                           LDV  PROLOGUE/COMMENTS            LDV    : SAMPLE
Line          Text
Cmd
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
....          ____________________________________________________________
******************************* BOTTOM OF DATA ********************************
```

Figure 8-3 Comments Panel — Logical Data View

Use this panel to enter comments about the logical data view that you are creating.

When you complete this panel, use the END primary to return to the Logical Data View Menu.

Files Panel

Display the Logical Data View Files panel by selecting Option 2 (Files) from the Logical Data View Menu.

Panel Name: LDVFILES **Panel Identification: M9DBAPPF**

```
LDVFILES ----------- ISPJJK1.IMPORT.DEFLIB(SAMPLE) ----------------------------
COMMAND ===>                                                  SCROLL ===> PAGE

                    LOGICAL DATA VIEW DEFINITION: SAMPLE

    DBM Storage (IMS) ===> _____          DB2 Sub-System Id ===> ________
    DB2 Plan Name     ===> ________       DB2 SQL Id        ===> ________
    Updater Id        ===> ____________   Expiration Date   ===> __ / __ / __

Line  File Def   File       File   Synchronize With   Password  Optimize +Where
Cmd     Name     Usage     DDname  File - Field Name  Auth Id    Memory?  Stmt?
''''
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
''''  ________  ________  ________   _     ________   ________      _       _
****************************** BOTTOM OF DATA ********************************
```

Figure 8-4 Files Panel — Logical Data View

Use this panel to list the files that you want to join in this logical data view.

When you complete this panel, use the END primary command to return to the Logical Data View Menu.

Files Panel Components

The following is an explanation of the entries on this panel.

DBM Storage (IMS)

To free memory after the opening of files during the processing step, enter a value from 1K to 1024K. Omit leading zeros.

DB2 Subsystem ID

If your program is going to connect to DB2, enter the DB2 subsystem name to which your program is to be connected.

DB2 Plan Name

If your program is going to connect to DB2, enter the application plan name. This is the name of the control structure built by the DB2 BIND process. The plan contains information about data your program intends to use.

DB2 SQL ID

If your program is going to connect to DB2, you can optionally enter an override SQL ID which is used as the Authorization ID by DB2. You can also use it for any default table qualification and checking for required table privileges.

Updater ID

This entry is optional or required depending on the installation-specified parameters for MARKLIBP. Use it to track the last user to modify this definition.

- When you promote a definition, this information is saved to the background library as definition statistics.
- This information also appears on the background library index listings that can be produced in the Definition Processor Utilities subsystem.

Expiration Date

This is the expiration date or retention period for the file definition. You can use the expiration date, in conjunction with the standard VISION:Inform Library Backup Utility and Library Restore Utility, to automatically delete definitions from your VISION:Inform background and foreground libraries.

No action is taken by VISION:Inform when an expiration date is reached. When you run the VISION:Inform Library Restore Utility, you can optionally purge expired definitions.

Enter a valid date in the format specified in your VISION:Inform Background Processor parameters module.

- Use the date notation mmddyy at all U.S. installations. International date notation can be different.
- You can also enter a retention period in the format nnnnn+.

File Definition Name

Enter the name of a file definition to be included in this logical data view. You can include up to ten files in one logical data view.

File Usage

Use this entry to determine whether a file is a primary file or a synchronized file within the logical data view.

- Enter DBFILE0 for the primary file. Every logical data view must have a primary file. If a sequential file is included in the logical data view, it must be specified as DBFILE0.
- Enter DBFILE1 — DBFILE9 to indicate synchronized files.

File DDname

Enter the ddname associated with this file in the Background Processor JCL. Do not use this entry for relational or DL/I files.

Synchronized With File

Use this entry to identify the logical data view to be synchronized with this file. The following file types and databases can be index synchronized files:

- HDAM and non-HDAM IMS databases
- DB2 logical records
- ISAM
- Variable VSAM
- Some key sequenced VSAM

Leave this entry blank for the primary file (DBFILE0).

For all synchronized files (DBFILE1 — DBFILE9,) enter the qualifier that corresponds to the file with which this file should be synchronized. Do not synchronize a file with itself.

- Enter 0 — To synchronize this file with DBFILE0.
- Enter 1 — To synchronize this file with DBFILE1.
- Enter 2 — To synchronize this file with DBFILE2.
- Enter 3 — To synchronize this file with DBFILE3.
- Enter 4 — To synchronize this file with DBFILE4.
- Enter 5 — To synchronize this file with DBFILE5.
- Enter 6 — To synchronize this file with DBFILE6.
- Enter 7 — To synchronize this file with DBFILE7.
- Enter 8 — To synchronize this file with DBFILE8.
- Enter 9 — To synchronize this file with DBFILE9.

Synchronizing Field Name

Use this entry to identify the field in the synchronizing file with which this file will be synchronized.

Leave this entry blank for the primary file (DBFILE0).

For all synchronized files (DBFILE1 - DBFILE9), enter the name of the field in the synchronizing file with which this file should be synchronized. The synchronizing file is the file specified in the Synchronized With File entry.

Password or Authorization ID

Use this entry to access a protected file.

- For a VSAM file, enter the password.
- For a relational logical record, enter the Authorization ID of the creator or owner of the table (that is, ownerID.tablename) for any table whose Authorization ID is not provided in the relational file definition.
  - Do not use this entry to override a specified authorization ID; it can only provide one if not specified.
  - If you leave this entry blank, specify an Authorization ID or the Logon user ID for all relational file definitions.

Optimize Memory?

Note: Use of the Optimize Memory option can drastically affect performance. Do not use it when storage is available for standard processing.

Use this entry for relational, GDBI, and IMS files only.

- Enter N or blank to process the file with the entire logical record in main storage at one time.
- Enter Y to keep only one occurrence of each segment in main storage at one time.

Where Statements?

Use this entry for relational files only. Enter a Y in this field to display a follow-on panel to create WHERE statements. SQL WHERE clauses will be generated from the information that you enter on the WHERE Statement panel.

WHERE Statements Panel

Display the WHERE Statements panel by entering a Y in the +WHERE Statements? field on the Logical Data View Files panel.

Panel Name: LDVWHERE **Panel Identification: M9RFAPWP**

```
LDVWHERE --------- ISPJJK1.INFORM.DEFLIB(SAMPLE) ----------------ROW 1 OF 15
COMMAND ===>                                                 SCROLL ===> CSR

                              WHERE STATEMENT FOR
                 LDV: SAMPfLE      FILE: FILE0       USAGE: DBFILE0

     Line     Segment     Where Statement
     Cmd       Name
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
     ''''     ________    ________________________________________________
 ******************************* BOTTOM OF DATA ****************************
```

Figure 8-5 WHERE Statements Panel

WHERE Statements Panel Components

The following is an explanation of the entries on this panel.

Segment Name

When you enter the statements, you only need the Segment Name entry on the first WHERE statement for a particular segment.

Where Statement

Use the Where Statement field in the WHERE Statements panel to enter SQL WHERE clauses that specify selection criteria for DB2 table rows.

You can use host variables within WHERE statements to indicate variable data values to be supplied at execution time.

During execution, VISION:Inform appends all WHERE statements to the generated SQL Select statement's WHERE clause. WHERE statement criteria is logically “ANDed” with any other selection criteria that has been specified for that file, such as logical relationship statements, to prepare the final WHERE clause on the Select statement.

Dynamic Performance Tuning — Automatic Generating of WHERE Clauses

VISION:Inform automatically optimizes and generates WHERE clauses for you. This mode of operation is known as dynamic performance tuning.

If you want to create your own WHERE statements, run VISION:Inform in a static performance mode (that is, turn off dynamic tuning).

See the OPTMODE parameter of PARMBLK for information on how to change this setting in the *Advantage VISION:Inform Installation Guide*.

Use the END primary command to return to the Files panel.

Alias Panel

Display the Alias panel by using the Select line command to select a file from the Files panel.

Panel Name: LDVALI **Panel Identification: M9DBAPLB**

```
LDVALI ----- ISPJJK1.INFORM.DEFLIB(SAMPLE) ---------------------- ROW 1 OF 16
COMMAND ===>                                                    SCROLL ===> CSR
                  LDV SEGMENT AND FIELD ALIASES                 LDV    : SAMPLE
                                                                FILE   : FILE0
                                                                USAGE: : DBFILE0
Line        Segment or Field        Segment         Field
Cmd               Name               Alias         Alias
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
....          ________            ________      ________
****************************** BOTTOM OF DATA ********************************
```

Figure 8-6 Alias Panel

Use this panel to assign alias names to segments and fields. This avoids problems that would be caused by duplicate field names between the individual file definitions that compose the logical data view. If a field or segment name is defined in more that one file, use the Alias panel to assign unique alias names to the duplicate field names. This ensures that field and segment names are unique across the logical data view.

When you complete this panel, use the END primary command to return to the Files panel.

Alias Panel Components

The following is an explanation of the entries on this panel.

Segment or Field Name

Enter the name of the segment or field for which the alias is provided. This name is the same as the segment or field name in the file definition for this file.

Segment Alias

Enter the segment alias name.

- Avoid duplicate segment names by using alias names.
- Apply the same naming conventions to segment names that apply to alias names.

Field Alias

Enter the field alias name.

- Avoid duplicate field names by using alias names.
- Apply the same naming conventions to field names that apply to alias names.

Procedures Panel

Display the Logical Data View Procedures panel by selecting Option 3 (Procedures) from the Logical Data View Menu.

Panel Name: LDVASL **Panel Identification: M9DBAPPP**

```
LDVASL ---- ISPJJK1.INFORM.DEFLIB(SAMPLE) ------------------------ ROW 1 OF 16
COMMAND ===>                                                  SCROLL ===> CSR

           PROCEDURES (and/or requests) TO BE INVOKED BY LDV: SAMPLE

      Line        Procedure(request)
      Cmd               Name                              Comment
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
      ....              ________            ____________________________
******************************* BOTTOM OF DATA *******************************
```

Figure 8-7 Procedures Panel

Use this panel to specify the procedures to be automatically invoked during logical data view processing.

To return to the Logical Data View Menu, use the END primary command.

Procedures Panel Components

The following is an explanation of the entries on this panel.

Procedure Name

Enter the name of the procedure to be invoked as part of logical data view processing. Procedures must be promoted before they can be used by a logical data view.

Comment

Enter a comment about this procedure (up to 28 characters).

Chapter

9 Creating Procedures

Note: For complete information on the Advanced Syntax Language (ASL), see the *Advantage* VISION:Inform *ASL Reference Guide*.

ASL is a free-form language consisting of commands and functions.

You use procedures to tie additional, automatic, procedural processing to the data extraction process. For instance, you can use procedures to automatically perform data transformations, such as converting measurements in inches to their metric counterparts, during the data extraction process.

You enter ASL procedure statements in the Procedure Processing Statements panel.

Panel Structure Chart

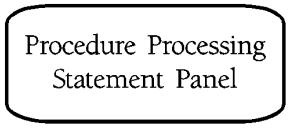


Figure 9-1 Procedure Subsystem Panel Structure Chart

Procedure Processing Statements Panel

Select Option 23 (Procedure) from the Definition Processor Main Menu to display the Definition Library Specification panel. Complete the Definition Library panel to display the Procedure Processing Statements panel.

Panel Name: ASL4 **Panel Identification: M9DCAPPP**

```
ASL4 ---- ISPJJK1.INFORM.DEFLIB(SAMPLE) ------------------------- ROW 1 OF 14
COMMAND ===>                                                    SCROLL ===> CSR
                                                              PROCEDURE: SAMPLE

          Procedure Type ===> _          Max Items ===> ____
          Reinit Temps?  ===> _

Line  Free Form Processing Statements
Cmd   ---------------------------------------------------------------------------
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....  _____________________________________________________________________________
....
****************************** BOTTOM OF DATA ******************************
```

Figure 9-2 Procedure Processing Statements Panel

Procedure Processing Statements Panel Components

The following is an explanation of the entries on this panel.

Procedure

This name is carried forward from the previous Item Entry List or Definition Selection List.

Procedure Type

Use this entry to specify where to execute a procedure in the VISION:Inform processing cycle.

- To execute the procedure during the passing of the master file, leave this entry blank.
- To execute this procedure when called by another procedure, enter an S.
- To cause VISION:Inform to generate an IMS SSA (pre-selection procedure), enter a P.

Reinit Temps?

Use this entry to specify automatic resetting to initial values for all explicitly defined temporary fields in this procedure.

- If you specify this entry, all explicitly defined temporary fields are reinitialized to the initial value specified when the fields were defined.
- If you do not specify an initial value, then character fields are initialized to blanks and numeric fields are initialized to zero.
- For no initialization to be performed, leave blank.
- For automatic reinitialization to be performed for every pass through the procedure, enter Y.

Maximum Items

Use this entry to specify the maximum number of items to meet the selection criteria of the procedure. Each positive exit from the procedure is counted in the maximum; a record with lower level segments can, due to looping, positively exit the procedure more than once.

- Enter a number from 1 to 9999.
- If you leave the entry blank, it means that no limit is placed on the number of items that can meet the selection criteria.

Free Form Processing Statements

Enter ASL statements on this part of the panel. The ASL language is fully documented in the *Advantage* VISION:Inform *ASL Reference Guide*.

Chapter

10 The Utilities Subsystem

Select the Definition Processor Utilities subsystem by choosing Option 30 (Display) or Option 31(Promote) from the Definition Processor Main Menu.

The Utilities subsystem contains options for:

- Printing and browsing member display listings of your VISION:Inform background library. You can also request glossary listings of the items.
- Maintaining and promoting items in the background and foreground libraries.

The Definition Processor writes all your requested output, such as index listings and glossaries, to the Definition Processor list data set.

Panel Structure Chart

Note: The Maintaining the Foreground and Background Libraries panel is referred to as the Maintaining Libraries panel.

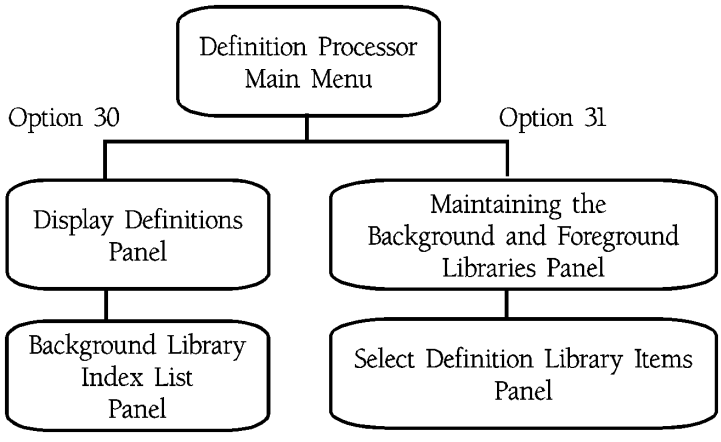


Figure 10-1 Utilities Subsystem Panel Structure

From the Definition Processor Main Menu:

- Select Option 30 (Display) to display the Display Definitions panel. See Display Definitions Panel.

  or

- Select Option 31 (Promote) to display the Maintaining Libraries panel. See Maintaining the Background and Foreground Libraries.

Display Definitions Panel

Select the Display Definitions panel by selecting Option 30 (Display) from the Definition Processor Main Menu.

Panel Name/Panel Identification: M9JK10

```
M9JK10  ---------  DISPLAY DEFINITIONS in BACKGROUND LIBRARY  --------------
COMMAND ===>

Background Library ===> 'INFVSAM1.JJK.INFORM.BGLIB'

To Display a List Of Promoted Definition Names
           and select items to be listed ENTER:

   Blank - Display All Promoted Item Names
   D     - Display Logical Dataview Names
   F     - Display File Definition Names
   Q     - Display Mapping Procedure Group Names
   R     - Display Individual Procedure Names
   T     - Display Table Definition Names

To Print a List Of Promoted Definition Names  ENTER:

   IN - Print a List of All Promoted Item Names
   DN - Print a List of Logical Dataview Names
   FN - Print a List of File Definition Names
   TN - Print a List of Table Definition Names
   PR - Print a list of Procedures and Procedure Group Names
```

Figure 10-2 Display Definitions Panel

Use the Display Definitions panel to either display or print an index listing of your VISION:Inform background library. To select a function, enter one of the option codes in the Command area.

Display Definitions Panel Components

The following is an explanation of the entries on this panel.

Background Library

Specify the name of the background library in the Background Library field. If the specified background library name is not enclosed in quotation marks, your TSO user ID is prefixed to the specified name.

To Display a List Of Promoted Definition Names

To display an index list, enter one of the following codes in the Command area:

Blank	To view a list of all definitions.
D	To browse a list of logical data view definitions.
F	To browse a list of file definitions.
Q	To browse a list of GDBI mapping procedure groups.
R	To browse a list of procedures.
T	To browse a list of table definitions.

To Print a List of Promoted Definition Names

To print an index list, enter one of the following codes in the Command area:

IN	To print all definitions.
DN	To print all logical data view definitions.
FN	To print all file definitions.
TN	To print all table definitions.
PR	To print procedures and procedure group names.

When you complete the necessary entries in the Display Definitions panel, press Enter to view or print the index listing.

- If you request the index list to be printed, the Definition Processor automatically writes the list to the Definition Processor list data set.
- If you request the index list to display, the Background Library Index List panel appears.

Background Library Index List Panel

Selecting one of the display options (Blank, D, F, Q, R, or T) in the Display Definition panel displays the Background Library Index List panel.

Panel Name/Panel Identification: M9JK11

```
M9JK11   --- 'INFVSAM1.JJK.INFORM.BGLIB'------------------  ROW 1 TO 15 OF 28
COMMAND ===>                                                 SCROLL ===> CSR

LIST GLOSSARIES by Entering "Y" (name order) or "X" (location order) for Item
Use RUN to produce the selected glossaries.
Use END to exit this dialog.  Use CANCEL to clear all glossary selections.

        DEFINITION   DEF    FIRST       LAST PROMOTE    EXPIRATION  UPDATED
LIST       NAME      TYPE  PROMOTE      DATE  -  TIME      DATE       BY
 .      ALDV          D    05/23/99   12/16/01 09:24:53
 .      GRP1          Q    10/31/00   10/31/00 11:26:54
 .      GRP2          Q    10/31/00   10/31/00 11:26:54
 .      GRP3          Q    10/31/00   10/31/00 11:26:54
 .      JJKPRIME      F    12/15/01   12/16/01 09:24:53
 .      JJKPRIMX      F    12/15/01   12/16/01 09:24:53
 .      JKGDBI01      Q    12/16/01   12/16/01 09:25:23
 .      JKGDBI01      F    09/12/00   12/16/01 09:24:53
 .      JKMAP01A      R    12/16/01   12/16/01 09:25:23
 .      JKMAP01B      R    12/16/01   12/16/01 09:25:23
 .      JKMAP01L      R    12/16/01   12/16/01 09:25:23
 .      JKMAP01X      R    12/16/01   12/16/01 09:25:23
 .      JKMAP01Y      R    12/16/01   12/16/01 09:25:23
 .      JKMMDESC      T    09/25/00   12/16/01 09:24:53
 .      JKVSML1       D    09/13/00   12/16/01 09:24:53
```

Figure 10-3 Background Library Index List Panel

Use the Background Library Index List Panel to browse a list of items that have been promoted to your VISION:Inform background and foreground libraries.

Index List Contents

The index list provides the following information:

- Definition name.
- Definition type.
- The date each definition was promoted for the first time.
- The date and time each definition was last promoted.
- The expiration date for each definition, if one was specified.
- The Updater ID of the last person who modified the definition, if Updater ID was specified.

Glossary Listing

You can obtain a formatted listing of the contents of the item, called a glossary listing, for any item in the background library.

- Enter a list glossary option (Y for name order or X for location order) next to each item to select a glossary listing for the item.
- Once you have entered all selections, enter the RUN command in the Command area to start the glossary output generation.

The Definition Processor writes glossary listing output to the Definition Processor list data set. A message displays to provide you with information about the location of the output. For example:

```
>>>-------------------------------------------------------------<<<
>>>                                                             <<<
>>>  THE GLOSSARIES AND/OR PROCEDURE/REQUEST LISTINGS           <<<
>>>  HAVE BEEN PRODUCED AND WERE CAPTURED IN DATA SET           <<<
>>>                                                             <<<
>>>  'ISPJJK2.M9LIST1.LIST'
>>>                                                             <<<
>>> THIS DATA SET IS PROCESSED AS  DISP=MOD  SO THE OUTPUT      <<<
>>> WAS ADDED AT THE END OF THE DATA SET.  THEY START WITH      <<<
>>> THE DATE AND TIMESTAMP  DEC 18, 1997  08.36.28
>>>                                                             <<<
>>>-------------------------------------------------------------<<<
***
```

Figure 10-4 List Data Set Information

To return to the Display Definitions panel, use the END primary command and press Enter.

Maintaining the Background and Foreground Libraries

The VISION:Workbench™ for ISPF Definition Processor provides the VISION:Inform user with a facility for maintaining background and foreground libraries.

You specify all the information required for migrating definition items from the definition library to the background and foreground libraries, through a series of panels and dialog interactions. The result is a JCL stream for the Promote process job. When you execute the Promote process job, the Definition Processor promotes (migrates) the selected definition items from the definition library to the background and foreground libraries.

Definition Library

The definition library contains the source format version of all the definition items used by VISION:Inform.

- These items are table definitions, file definitions, logical data view definitions, and procedures.
- Develop and maintain the source format details for these items using other facilities of the VISION:Workbench for ISPF Definition Processor.

Background Library

The background library is an execution time library that contains all the items the VISION:Inform Background Processor uses while processing queries and tasks submitted by the user. The items migrated into the background library are transformed from source format to execution format during the Promote process.

Foreground Library

The foreground library is an execution time library that contains all the items the VISION:Inform Foreground Processor uses. The items in the foreground library are grouped into two categories: definitions and user profiles.

- The definitions are the items migrated from the background library and transformed into online format.
- The user profiles define system security and access control for the online portion of VISION:Inform. The system administrator maintains user profiles using the Foreground Processor.

Promote Process

The process of maintaining the background and foreground libraries is known as the Promote process. The Promote process is performed by a job executed in the background environment. Definition items are promoted from the definition library to the background and foreground libraries.

Maintaining the Background and Foreground Libraries Panel

From the Definition Processor Main Menu, you select Option 31 (Promote) to display the Maintaining Background and Foreground Libraries panel and build the Promote process job.

Note: The Maintaining the Background and Foreground Libraries panel is referred to as the Maintaining Libraries panel.

Panel Name/Panel Identification: M9JK20

```
M9JK20   --------- MAINTAINING the Background and Foreground Libraries -----
COMMAND ===>

 PROMOTE  - Enter the Data Set Names and Parameters needed for Building
            a JCL Job Stream that will be Run to Promote Definitions:

From DEFINITION Library   ===> 'ISPJJK1.DEFS.LIBRARY'

To   BACKGROUND Library   ===> 'INFVSAM1.JJK.INFORM.BGLIB'
And  FOREGROUND Library   ===> 'INFVSAM1.ULS.KRESS30.FGLIB'
for ONLINE Environment    ===> IMS

General Run Parameters  for the Promote

Run Type          ===> REAL    TEST or REAL Promote Run
Promote to FG Lib ===> ALL     ALL BG Lib Items, SELECT Items, or NONE
Print Glossaries  ===> YES     NO or YES - for every promoted definition
Condense BG LIB   ===> YES     NO or YES - compress unused space
Procedures to BG  ===> YES     NO or YES - promote associated procedures

 Use  ENTER  to process information and continue to Items selection panel
                                                or to JCL Build panel
 Use  END    to save the information and exit
 Use  CANCEL to exit without save
```

Figure 10-5 Maintaining Libraries Panel

This panel starts a series of panel dialog interactions that result in building the JCL job stream that promotes definition library items to the background and foreground libraries. Note that after the initial traversing of the panels using the dialog, the majority of the information entered is saved and therefore presented automatically in subsequent sessions.

Maintaining Libraries Panel Components

The following is an explanation of the entries on this panel.

Use the first panel to input the information that controls the Promote process job.

From DEFINITION Library

Enter the data set name of the library that contains the source format items to be promoted.

To BACKGROUND Library

Enter the data set name of the library that will contain the execution format items promoted for use by the Background Processor.

And FOREGROUND Library

Enter the data set name of the library that will contain the execution format items promoted for use by the Foreground Processor.

For ONLINE Environment

Enter either IMS or CICS, depending on the online environment in which the Foreground Library will be used.

General Run Parameters for the Promote Section

The Promote process job performs several tasks. In this section of the panel, you specify the general run parameters for these tasks.

Run Type

Specify a simulated or actual execution of the Promote process job.

- Enter TEST for a simulated Promote process run.

  When you use the TEST option, the job performs the promote functions using temporary data sets and the actual background and foreground libraries are not updated.

- Enter REAL for an actual Promote process run.

Promote to FG Lib

Specify the items to be promoted:

- Enter ALL to promote every background library item to the foreground library.
- Enter SELECT to promote selected background library items to the foreground library. You select these items from the definition library in the Select Definition Library Items panel. See Select Definition Library Items Panel.
- Enter NONE to not promote any items to the foreground (or the background) library. If you specify NONE, the Select Definition Library Items panel does not appear.

Print Glossaries

- Enter YES to print glossaries for every item selected from the definition library for promotion.
- Enter NO to suppress glossaries for the items selected from the definition library.

Note that on the Select Definition Library Item panel, you can specify individual glossary options which override this entry.

Condense BG Lib

- Enter YES to have the background library condensed.
- Enter NO to bypass the background library condense.

Condensing makes deleted item space available for when adding new items.

Procedures to BG

- Enter YES to have the associated procedures promoted to the background library along with the selected file definitions and logical data views.
- Enter NO to bypass promoting associated procedures.

Once you enter the information, press ENTER to proceed to the Select Definition Library Items panel or the Promote JCL Build — Job Information panel.

If you select NONE for the PROMOTE to FG Lib parameter, the Select Definition Library Items panel does not appear.

Select Definition Library Items Panel

Panel Name/Panel Identification: M9JK21

```
M9JK21   -- 'ISPJJK1.DEFS.LIBRARY' ---------------------------------------
COMMAND ===>

 SELECT Definition Library Items - Use P to Promote and D to Delete
          Specific Item Glossary - Use X (by location), Y (by name), N (none)

Use ENTER  to process selection entries
Use END    to complete the JCL Job Stream Build
Use CANCEL to exit to the previous display

SEL/GLS  NAME     TYP VV.MM  CREATED     CHANGED     SIZE  INIT   MOD    ID
****************************** BOTTOM OF DATA ********************************



.-------------------------------------------------------------------------.
| >>>>>   Press the  ENTER KEY  to Build  the Item Selection List.   <<<<<   |
| >>>>>   Press the  END   KEY  to Bypass the Item Selection List.   <<<<<   |
| >>>>>                                                              <<<<<   |
| This panel is used to Select the Items that will be Promoted from the      |
| Definition Library to the Background Library or to specify which items are |
| to be deleted from the Background and Foreground Libraries.                |
'-------------------------------------------------------------------------'
```

Figure 10-6 Select Definition Library Items Panel

Use the Select Definition Library Items panel to select the items from the definition library to promote to the background and foreground libraries.

When the Select Definition Library Items panel first appears, there is a pop-up window that prompts you for actions.

Your initial action is to either:

- Press ENTER to build the Item Selection List.

  or

- Press END to bypass the Item Selection List.

Note that it takes time to build the selection list because the members in the definition library are scanned to locate and identify the members that are actually file, table, or logical data view definitions. If you do not need to select any items, bypass building the list.

You can also use CANCEL to return to the previous display.

When you press ENTER, the selection list will be built. The building of the Selection List takes a few moments. A new pop-up window appears within the panel letting you know that the build is proceeding. For example:

```
.-------------------------------------------------------------------------.
| The Definition Library 'ISPJJK1.DEFS.LIBRARY' has 93 members.  The members  |
| are being scanned to gather a list of definitions available for promoting to |
| the Background and Foreground Libraries.  Please wait.                    |
'-------------------------------------------------------------------------'
```

Figure 10-7 Select List Build Pop-up Window

When the select list is built, it appears at the bottom of the Select Definition Library Items panel. The selection list shows all the selected items in the definition library along with the item Type identifier and the ISPF Statistics.

Panel Name/Panel Identification: M9JK21

```
M9JK21   -- 'ISPJJK1.DEFS.LIBRARY' ----------------------  ROW 1 TO 13 OF 51
COMMAND ===>


SELECT Definition Library Items - Use P to Promote and D to Delete
Specific Item Glossary - Use X (by location), Y (by name), N (none)

Use ENTER  to process selection entries
Use END    to complete the JCL Job Stream Build
Use CANCEL to exit to the previous display

 SEL/GLS  NAME     TYP VV.MM  CREATED     CHANGED     SIZE  INIT   MOD    ID
.   .    ALDV      D  01.02 01/12/15 01/12/15 10:28    12    12     0 ISPJJK2
.   .    ARFILE    F  01.02 00/06/06 01/04/05 11:15   113   113     0 ISPJJK2
.   .    A12343B   F
.   .    CANEONE   F  01.00 00/03/12 00/03/12 12:46   118   118     0 ISPJJK1
.   .    CUSTFILE  F
.   .    CUST1FDR  F  01.00 00/11/07 00/11/07 08:47    17    17     0 ISPJJK1
.   .    CUST2FDS  F  01.00 00/11/07 00/11/07 08:47    18    18     0 ISPJJK1
.   .    DB2FD     F  01.00 00/11/01 00/11/01 09:58     8     8     0 ISPJJK1
.   .    DB2LDV    D  01.00 01/11/05 01/11/05 14:32     2     2     0 ISPJJK2
.   .    DB2TST1   F  01.00 01/04/22 01/04/22 17:01    64    64     0 ISPJJK2
.   .    DEPTFILE  F
.   .    EMPFILE   F  01.00 01/05/13 01/05/13 16:36   118   118     0 ISPJJK2
.   .    EMPFILE1  F
```

Figure 10-8 Select Definition Library Items Panel with Selected Items

The item Type codes are:

- F — File definition.
- T — Table definition.
- D — Logical data view definition.

When the list appears, you enter the selection and glossary options (SEL/GLS), as needed next to each item you want promoted.

SEL

Choose to promote or delete the item.

- Use P to promote the item to the background and foreground libraries.
- Use D to delete the item from the background and foreground libraries.

Note: When you use the Utilities subsystem D (delete) option, definitions are deleted from the background library immediately. Definitions in the foreground library are not deleted until the next promote is performed.

GLS

Enter a specification for a glossary listing.

- Use X to get a glossary listing in field location order for the promoted item.
- Use Y to get a glossary listing in field name order for the promoted item.
- Use N to indicate that NO glossary is desired.

Leave Blank and the General Run Parameter for Glossaries determines glossary output.

Note that individual glossary entries on this panel override the general run parameter glossary option for just the selected item.

As you select items and scroll the list, the selections are processed and saved in the list. Pressing ENTER (or scrolling) processes the selection entries on the current display.

When you have made all your selections:

- Use END to continue building the JCL.
- Use the CANCEL command to erase your selections (and the list) and return to the previous panel.

If you use END to continue building the JCL, the Promote JCL Build — Job Information panel appears.

Promote JCL Build — Job Information Panel

Note: The promote dialog only builds the Promote process JCL job stream. After you build the JCL, you must run (submit) the Job in order for the promote to actually occur.

Panel Name/Panel Identification: M9JK22

```
M9JK22   -------------- PROMOTE JCL Build - JOB Information -------------------
COMMAND ===>

                Provide the JOB Control Information for the Promote JCL
JOB Statement
  ===> //ISPJJK1I JOB (I02010,279300,SPG,37),'JKRESS BN31',
  ===> //        MSGCLASS=X
  ===> //*

JOBLIBs - Enter the VISION:Inform  Program Libraries
 LOAD  Library  ===> 'INFORM.LOADLIB'
 CLIST Library  ===> 'INFORM.CLIST'

OUTPUT Destination Information
 Promote Run Log          ===> SYSOUT=*
 Glossary Listings        ===> SYSOUT=*
 Foreground Promote Log   ===> SYSOUT=*
 Temporary Library Space  ===> 300   (Tracks)


 Use  ENTER  to complete the JCL Job Stream Build

 Use  END    to save the information and exit
 Use  CANCEL to exit without save
```

Figure 10-9 Promote JCL Build — Job Information Panel

Use the Promote JCL Build — Job Information panel to specify the job control information.

Promote JCL Build — Job Information Panel Components

The following is an explanation of the entries on this panel.

JOB Statement

Enter a JOB statement and parameters. Three lines are available for your specifications.

JOBLIBs Section

Use this section to specify the VISION:Inform program libraries (the VISION:Inform installation load library and the VISION:Inform CLIST library).

LOAD Library

Enter the name of the VISION:Inform installation load library used for background processing.

CLIST Library

Enter the name of the VISION:Inform CLIST library that contains the CLISTs used by the VISION:Workbenchfor ISPF Definition Processor.

OUTPUT Destination Information Section

The Promote JOB produces output that documents the process and actions. In this section, you can direct the output to SYSOUT or to data sets.

The output characteristics are: RECFM FA or FBA, LRECL=133, DSORG=PS.

Specify where you would like the Promote process job to write the output generated during the run. The generated output includes the Promote Run Log, Glossary Listings, and the Foreground Promote Log.

Promote Run Log

Specify a destination for the Promote process job log. This log contains actions, information, and error messages.

Glossary Listings

Specify a destination for the requested glossary listings.

Foreground Promote Log

The Definition Processor writes foreground Promote Process Utility information and error messages to this destination.

Temporary Library Space

The Definition Processor uses temporary library space during the Promote process run. This space is for intermediate staging of the background library. The space is allocated in contiguous tracks on SYSDA and is deleted at the end of the run. Enter the number of tracks.

- 300 is the initial default.
- Use a larger value only if your background library is very big.

Once you enter the information in the Promote JCL Build — Job Information panel, press ENTER to complete the JCL job stream build and display the Promote JCL Build —Generate the Job Stream panel.

Promote JCL Build — IMS Job Information Panel

For the IMS online environment, you will need to provide IMS Related JCL information. A separate panel (M9JK22X) appears for you to enter the required information.

Note: This panel will only display if the "online environment" entry on panel M9JK20 is "IMS".

Panel Name/Panel Identification: M9JK22X

```
M9JK22X  ------------ PROMOTE JCL Build - IMS JOB Information -----------------
COMMAND ===>

              Provide the IMS JOB Control Information for the Promote JCL

 IMS Run Type         ===> DLI       ( BMP or DLI )

 Utility PSB Name     ===> INFUTIL

 Utility Tran Code    ===> INFUTIL   ( Required for BMP Run Type     )

 Online Module Prefix ===> INFORM    ( Six-character Transfer Prefix )

 IMS Res Library      ===> 'IMSESA.RESLIB'

Data Base Libraries - Required for DLI Run Type

 PSB Library          ===> 'INFORM.PSBLIB'
 DBD Library          ===> 'INFORM.DBDLIB'

 Use  ENTER  to complete the JCL Job Stream Build

 Use  END    to save the information and exit
 Use  CANCEL to exit without save
```

Figure 10-10 Promote JCL Build — IMS Information Panel

Use the Promote JCL Build – IMS Information Panel to specify the IMS job information.

Promote JCL Build — IMS Information Panel Components

The following is an explanation of the entries on this panel.

IMS Run Type

Enter the type of IMS Run, DLI or BMP, you will execute.

Utility PSB Name

Enter the VISION:Inform Utility PSB Name.

Utility Tran Code

Enter the VISION:Inform Utility Transaction Name.

Online Module Prefix

Enter the six-character prefix name assigned during the transfer of modules to your online libraries.

IMS Res Library

Enter the name of the IMS resident library.

PSB Library

Enter the name of the library containing the VISION:Inform PSBs.

DBD Library

Enter the name of the library containing the VISION:Inform DBDs.

Promote JCL Build — Generate the Job Stream Panel

Note: The promote dialog only builds the Promote process JCL job stream. After you build the JCL, you must run (submit) the Job in order for the promote to actually occur.

Panel Name/Panel Identification: M9JK23

```
M9JK23   ---------- PROMOTE JCL Build - Generate the Job Stream     -----------
COMMAND ===>


   The Promote Job Stream JCL will be generated and placed in the
   following Data Set and Member ready for you to Submit and Run.
   The generated JCL will be displayed for you in EDIT mode.

JCL Library for the Promote Job Stream

 Data Set Name  ===> 'ISPJJK1.PROMRUN.JCL'

 Member Name    ===> R971217A   (replaces existing member)


 Use  ENTER  to generated the Promote Job Stream JCL

 Use  END    to save the information and exit
 Use  CANCEL to exit without save
```

Figure 10-11 Promote JCL Build — Generate the Job Stream Panel

This is the final panel you use in preparing the Promote process job JCL. The Definition Processor:

- Merges all the information gathered from the previous panels with a JCL model (skeleton JCL in the SKELS data set).
- Places this information into a designated member of a library data set for your review and actions.

You have three choices:

1. Submit the Promote (JCL has already been saved).

Initially, the Command area is empty in the ISPF Edit session. The Command area is the area to the right of COMMAND ===> in Panel 12.

```
EDIT           INFORM.JCL(PROMOTE) - 01.00               Columns 00001 00072
Command ===> submit                                        Scroll ===> PAGE
****** ***************************** Top of Data ******************************
000001 //JOBNAME  JOB (Accounting Information)
000002 //*
000003 //*
000004 //*
000005 //*                                        INFORM LOADLIB
000006 //JOBLIB   DD  DSN=INFORM.LOADLIB,DISP=SHR
000007 //*                                        IMS RESIDENCE LIBRARY
000008 //         DD  DSN=IMSESA.RESLIB,DISP=SHR
000009 //*                                        IBM LANGUAGE ENVIRON LIB
000010 //*
000011 //*        DD  DSN=IBM.LANGUAGE.ENVR.RUNLIB,DISP=SHR
000012 //*
000013 //*
000014 //*  THE PRIMARY PROMOTE STEP FOR CICS AND IMS ENVIRONMENTS
000015 //*
000016 //*                                        TSO ENVIRONMENT PROGRAM
000017 //PROMOTE EXEC PGM=IKJEFT01,REGION=3072K
000018 //*
000019 //*                                        INFORM CLIST LIBRARY
```

Figure 10-12 Panel 12 — ISPF Edit Session with Promote JCL

Press Enter to display the Promote JCL in an ISPF Edit session.

2. Revise the JCL and Submit the Promote.
   a. Save the revised JCL, or
   b. Cancel the revised JCL.
3. Do not submit the Promote (enter Cancel).

After you review the generate JCL, submit the job for execution.

Promote JCL Build — Generate the Job Stream Panel Components

The following is an explanation of the entries on this panel.

JCL Library for the Promote Job Stream Section

In this section of the panel, you provide a location where the Definition Processor writes the JCL. Specify a JCL Library with DSORG=PO, RECFM=F, LRECL=80.

Data Set Name

Enter the name of a JCL library data set.

Member Name

Enter the member name where the JCL will be stored. If the member name already exists in the library, the contents will be replaced.

When you complete the information for this panel, press ENTER. The JCL is built, stored, and the resulting Job stream displays in EDIT Mode for your review and action.

Generate Job Stream Message

A message appears on your screen indicating the completion of the build and that you will be transferred to the Edit subsystem, to review and edit the JCL.

```
***-------------------------------------------------------------***
***                                                             ***
***              THE PROMOTE RUN JOB STREAM JCL                 ***
***                HAS BEEN BUILT AND STORED.                   ***
***                                                             ***
***                    PRESS THE ENTER KEY                      ***
***            TO REVIEW AND EDIT THE JCL MEMBER.               ***
***                                                             ***
***-------------------------------------------------------------***
***
```

Figure 10-13 Generate Job Stream Message

When you end your edit session, you return to the first panel in the Maintaining Libraries dialog. A message (Promote Dialog completed.) appears indicating that the promote dialog completed.

Panel Name/Panel Identification: M9JK20

```
M9JK20   --------- MAINTAINING the Background and Foreground Libraries -----
COMMAND ===>
Promote Dialog completed.
 PROMOTE  - Enter the Data Set Names and Parameters needed for Building
            a JCL Job Stream that will be Run to Promote Definitions:

From DEFINITION Library   ===> 'ISPJJK1.DEFS.LIBRARY'

To   BACKGROUND Library   ===> 'INFVSAM1.JJK.INFORM.BGLIB'
And  FOREGROUND Library   ===> 'INFVSAM1.ULS.KRESS30.FGLIB'
for Online Environment    ===>  IMS

General Run Parameters  for the Promote

Run Type          ===> REAL    TEST or REAL Promote Run
Promote to FG Lib ===> ALL     ALL BG Lib Items, SELECT Items, or NONE
Print Glossaries  ===> YES     NO or YES - for every promoted definition
Condense BG LIB   ===> YES     NO or YES - compress unused space
Procedures to BG  ===> YES     NO or YES - promote associated procedures

 Use  ENTER  to process information and continue to Items selection panel
                                                 or to JCL Build panel
 Use  END    to save the information and exit
 Use  CANCEL to exit without save
c
```

Figure 10-14 Maintaining Libraries Panel with Promote Dialog Completed Message

The promote dialog only builds the Promote process JCL job stream. After you build the JCL, you must run (submit) the Job in order for the promote to actually occur.

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