

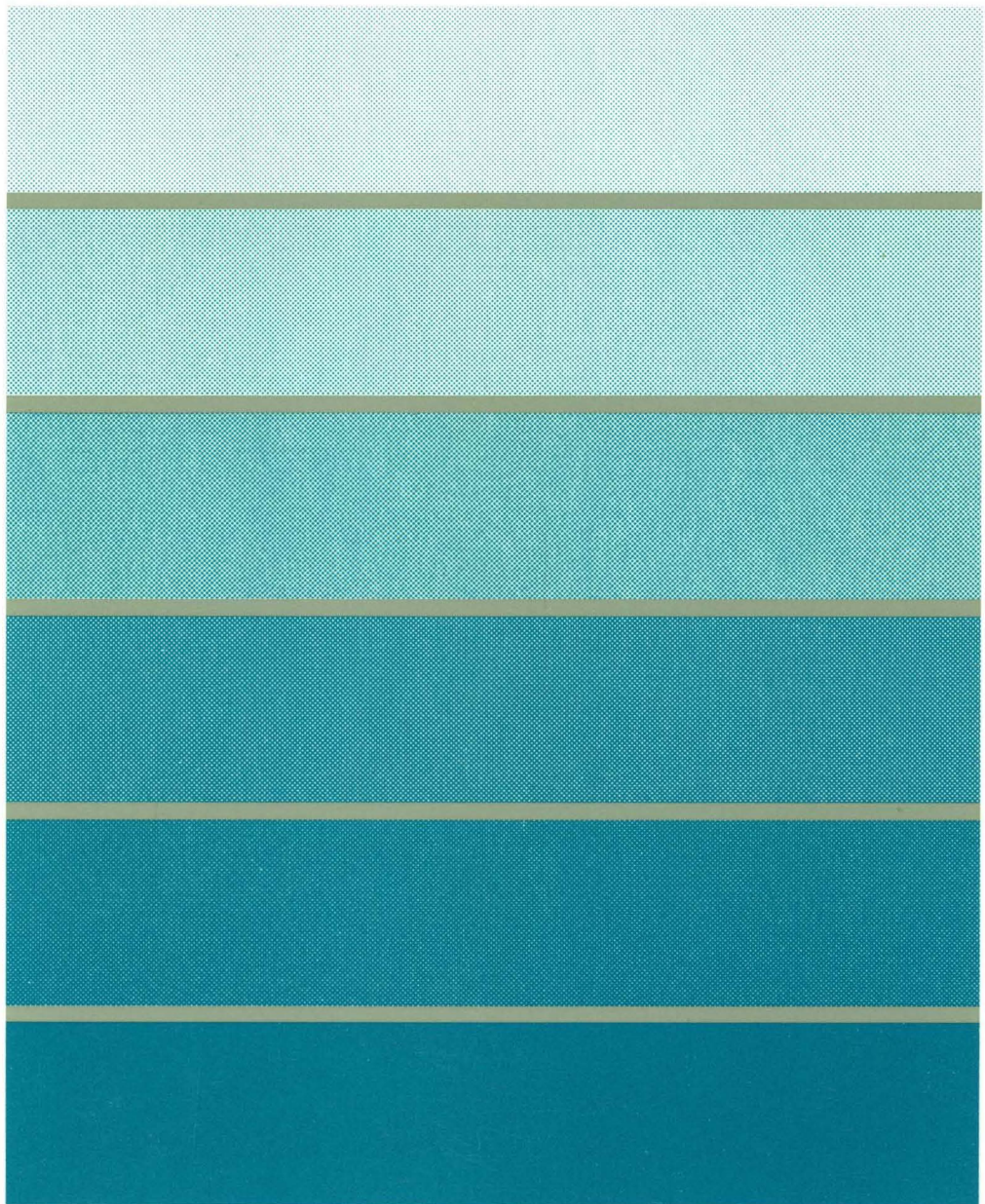


3174 Establishment Controller

GA23-0342-2

## Central Site Customizing User's Guide

Configuration Support A and S Release 5.0



3270 Information Display System



3174 Establishment Controller

GA23-0342-2

# **Central Site Customizing User's Guide**

Configuration Support A and S Release 5.0

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**Third Edition (April 1989)**

This major revision obsoletes and replaces GA23-0342-1.

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## Choosing the Right Book from the 3174 Library

The 3174 library contains information for installing, customizing, operating, maintaining, and programming the data stream for the 3174 controller. The list below shows the manuals you need to perform these tasks.

### **To Organize Library Materials:**

Binders and Inserts, SBOF-0089  
Binder, SX23-0331  
Inserts, SX23-0332

### **To Become Familiar with the 3174:**

*Master Index*, GC30-3515  
*3174 Introduction*, GA27-3850  
*3270 Information Display System Introduction*, GA27-2739

### **To Prepare Your Site for the 3174:**

*Site Planning*, GA23-0213  
*Physical Planning Template*, GX27-2999

### **To Set Up and Operate the 3174:**

*Models 1L, 1R, 2R, 3R, 11L, 11R, 12R, and 13R User's Guide* GA23-0337  
*Models 51R, 52R, 53R, 61R, 62R, and 63R User's Guide*, GA23-0333  
*Models 81R, 82R, 91R, and 92R User's Guide*, GA23-0313

### **To Plan for and Customize the 3174:**

*Planning Guide*, GA27-3844  
*Utilities Guide*, GA27-3853  
*Central Site Customizing User's Guide*, GA23-0342

### **To Install Features or Convert Models on the 3174:**

*Encrypt/Decrypt Adapter Installation and Removal Instructions*, GA23-0262  
*Fixed Disk Installation and Removal Instructions*, GA27-3864  
*Diskette Drive Installation and Removal Instructions*, GA23-0263  
*Terminal Multiplexer Adapter Installation and Removal Instructions*, GA23-0265  
*Model Conversion Instructions*, GA23-0295  
*Token-Ring Network Feature Installation and Removal Instructions*, GA23-0329  
*Storage Expansion Feature Installation and Removal Instructions*, GA23-0330  
*Communications Adapter Installation and Removal Instructions*, GA27-3830  
*Asynchronous Emulation Adapter Installation and Removal Instructions*, GA23-0341

**To Plan for and Use the Asynchronous Emulation Adapter Feature:**

*Planning Guide, GA27-3844*

*Terminal User's Reference for Expanded Functions, GA23-0332*

*Utilities Guide, GA27-3853*

**To Use the Multiple Logical Terminals Function:**

*Terminal User's Reference for Expanded Functions, GA23-0332*

*Planning Guide, GA27-3844*

*Utilities Guide, GA27-3853*

**To Perform Problem Determination:**

*Customer Problem Determination, GA23-0217*

*Status Codes, GA27-3832*

**To Obtain Data Stream Programming and Reference Information:**

*Functional Description, GA23-0218*

*Data Stream Programmer's Reference, GA23-0059*

*3174 Character Set Reference, GA27-3831*

*3270 Character Set Reference, GA27-2837*

*3270 X.25 Operation, GA23-0204*

**To Perform Maintenance (Service Personnel):**

*Models 1L, 1R, 2R, 3R, 11L, 11R, 12R, and 13R Maintenance Information, SY27-2572*

*Models 51R, 52R, 53R, 61R, 62R, and 63R Maintenance Information, SY27-2573*

*Models 81R, 82R, 91R, and 92R Maintenance Information, SY27-2584*

**To Find Translations of Safety Notices:**

*Safety Notices, GA27-3824*



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## Preface

This book consists of two major parts and three appendixes.

### **Part 1 Central Site Customizing**

Part 1 of this book explains how to use Central Site Customizing to create and manage a central site library of configuration and label data for each controller in a network, at the network's central site. Customized Control diskettes can be generated using the configuration data stored in the library and then sent to each controller. Part 1 consists of Chapters 1 through 3.

### **Part 2 Central Site Change Management**

Part 2 of this book explains Central Site Change Management (CSCM) and the interface between CSCM and NetView™ Distribution Manager (DM), Version 1, Release 2. Detailed information about NetView DM is contained in the NetView DM publications. Part 2 consists of Chapters 4 through 8.

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## Who This Book Is For

Part 1 of this book is written for the person whose job it is to create a central site library of 3174 customization data at the network's central site. Using a 3174 Establishment Controller at a network's central site, this person customizes the controller microcode for each controller in the network. This person may also be responsible for distributing the customizing data from the central site to the other 3174s in the network. He should have a data processing and network planning background. It is important to have had experience in 3174 customizing and to be familiar with the operation of a 3270 display station.

Part 2 of this book is written for the person whose job it is to manage 3174 microcode changes and the electronic distribution of this microcode to all 3174 controllers in the network. Managing changes consists of tracking the release levels and types of customization data, such as configure data and printer authorization matrix data, for each 3174. Managing changes also includes deciding when a particular controller should receive a microcode upgrade (change from an old release level to a new release level) or when a controller merely requires changes to its configuration data. Distribution consists of controlling how new or changed microcode gets to the controllers in the network. Distribution is accomplished physically by sending diskettes or electronically through the network using CSCM in conjunction with NetView DM. The user of Part 2 should be experienced in SNA network management, Multiple Virtual Storage (MVS) systems, and the Interactive System Productivity Facility (ISPF). This person should become experienced with the NetView DM application.



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## How to Use This Book

For **central site customizing**, use Part 1 of this book, which consists of Chapters 1 through 3.

A first-time user should read Chapter 1 for an overview of central site customizing. This chapter explains the concept of central site customizing and terminology usage, such as central site library and library members.

Chapter 2 offers a series of examples, involving the display panels, that show you how to perform specific central site customizing tasks. When in Chapter 2, you may want to refer to Chapter 3 for information about the panels.

Chapter 3 presents an explanation of all of the display panels used in central site customizing. The panels that are displayed on your screen depend on the particular central site customizing function you are performing.

In addition, you may need to refer to the following topics in the *3174 Utilities Guide*, GA27-3853:

- How to Customize the Control Disk
- How to Define the Printer Authorization Matrix
- How to Configure the Asynchronous Emulation Adapter.

For **central site change management**, use part 1 of this book first to create your central site library. Then use part 2, which consists of Chapters 4 through 8.

A first-time user of central site change management (CSCM) should read Chapter 4 for an overview of CSCM, NetView DM, and CSCM terminology.

Use Chapter 5 to set up central site change management and to define your 3174 controllers to ACF/VTAM.

Chapter 6 provides a description of 3174 canonical names. The first time through read this chapter up to "Using Control Disk Data Canonical Names" on page 6-6. Use the remainder of Chapter 6 when you need more information about a particular canonical name.

Chapter 7 explains the NetView DM functions used with the 3174 to distribute 3174 data objects, such as Control disk microcode and configure customization data.

Chapter 8 provides example NetView DM transmission plans to electronically distribute microcode. An example JCL statement for the NetView DM batch interface is also provided. Use the examples in this chapter as a guide to build your own transmission plans.

Appendix A offers tips on managing the network from the central site.

Appendix B explains the interutility checking process.

Appendix C contains problem determination information for central site change management only.

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## Related Publications

The following publications are referred to in other sections of this book.

- *IBM 3270 Information Display System: 3174 Establishment Controller; 3174 Utilities Guide*, GA27-3853
- *IBM 3270 Information Display System: 3174 Establishment Controller; Site Planning*, GA23-0213
- *IBM 3270 Information Display System: 3174 Establishment Controller; Status Codes*, GA27-3832
- *IBM NetView Distribution Manager: General Information*, GH19-6587.
- *IBM NetView Distribution Manager: Planning*, SH19-6589.
- *IBM NetView Distribution Manager: Installation*, SH19-6590.
- *IBM NetView Distribution Manager: User's Guide*, SH19-6602.
- *IBM NetView Distribution Manager: Operation*, SH19-6592.
- *IBM NetView Distribution Manager: Messages and Codes*, SH19-6595.
- *IBM NetView Distribution Manager: Diagnosis*, LY19-6293.

The following publications will be available June 30, 1989.

- *SNA Architecture Formats*
- *SNA Format and Protocol Reference Manual: Management Services*
- *SNA Format and Protocol Reference Manual: Distribution Services*
- *SNA File Services*.



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# **Summary of Changes**

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## **Third Edition (March 1989)**

Information has been added for:

- The product name is changed from 3174 Subsystem Control Unit to 3174 Establishment Controller.
- Microcode support for additional models of the 3174 Establishment Controller

Technical changes are indicated by a vertical bar (|) in the left margin.





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# Chapter 1. Introduction to Central Site Customizing

Customizing of 3174 Establishment Controllers from a central site is facilitated by Central Site Customizing, Option 7 on the Master Menu. After selecting Option 7, you proceed through a series of panels to accomplish various Central Site Customizing functions. A flow chart of the Central Site Customizing panels is provided in Chapter 3.

*Central Site Customizing* is the process of tailoring the customization parameters for each controller in a network, at a central site. The customization parameters are tailored to accommodate a controller's attached displays and attached printers, and its method of attachment to the host. These parameters are stored on a Library diskette or in a Library subdirectory on a fixed disk for later distribution to the controllers in a network. The distribution is accomplished either by physically mailing diskettes or electronically, through the network. Electronic distribution is accomplished by using the central site change management (CSCM) function in conjunction with the NetView™ DM application. Central site change management is a function provided by the 3174 controller microcode. Further information is provided about CSCM and NetView DM in Part 2 of this manual.

Customizing each controller on an individual basis may be difficult to manage, because the controllers can be at many different locations within the network. Central Site Customizing makes it easier to create and maintain, at a central site, a library that contains controller customizing parameters: Configure, AEA Configure, and Printer Authorization Matrix data. Central Site Customizing also makes it possible to generate, from this library, customized Control diskettes and labels for distribution throughout the network.

Additional data that makes up a complete customized Control diskette that **cannot** be stored as library members is:

- Keyboard Definition Utility (KDU) data
- Request for Price Quotation (RPQ) merge data
- Operational Control Microcode
- Patch data.

Also, you **cannot** store Utility microcode, Downstream Load (DSL) microcode or RPQ microcode as library members.

There are several advantages to Central Site Customizing:

- You can manage customizing throughout the network by generating customized Control disks from a central database.
- You can minimize the need for customizing expertise throughout the network by concentrating it just at the central site.
- You can save customizing time by relying on just a few trained people located at the central site who are thoroughly familiar with customizing, especially Central Site Customizing.

- Record-keeping is enhanced because information can be quickly and easily retrieved from the database. Also, updating of the database is easy to accomplish.

Central Site Customizing is intended primarily for customers whose networks contain more than 25 controllers, but it may be used in smaller networks as well. When selected, the Central Site Customizing Utility is loaded into main storage from the Utility diskette or Utility disk image on a fixed disk. The Central Site Customizing Utility must be run on a 3174 controller operating offline.

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## Central Site Library

The central site library contains the customizing data for each controller in the network. This library is created and maintained by using the Central Site Customizing Utility.

### Library Disk

The central site library is contained either on a diskette called the *Library diskette* or on a fixed disk that has been formatted to contain the central site library. Up to 210 library members can be stored on a Library diskette, and up to 3300 library members can be stored on a fixed disk. The number of library members that can be stored depends on how much customizing data is stored in each library member file. If a large number of your controllers are configured to support all of the functions allowed by the 3174, each library member will be fairly large and you will not be able to fit as many library members. When the central site library is stored on Library diskettes, several diskettes may be needed to contain the entire network library. Up to five different microcode release levels can be stored on the Library diskette. Up to 10 different microcode release levels can be stored on a Library fixed disk.

For example, you could have library members at the following microcode release levels:

- A3.0
- A3.1
- A4.0
- S4.0.

For Library diskettes you can have one more microcode release level, and for a library stored on fixed disks you can have six more microcode release levels. See "Microcode Level Support and Controller Models" on page 1-13 for microcode level restrictions if you store your central site library on 3174 Model 11L, 11R, 12R, 13R, 61R, 62R, or 63R.

### Library Members

The configuration data for each controller is stored in its own file in the central site library. The files are known as *library members*. You assign each library member a unique name by which it will be accessed and referred to. The name must be unique throughout the network. A library member name consists of up to 8 alphanumeric characters.

For more information about naming library members, see "User-Specified Names" on page 1-3 and "Library Member Naming Convention" on page 1-3.

Each of the following data types can be stored as a library member:

- Configure data
- Asynchronous emulation adapter (AEA) configure data
- Printer authorization matrix (PAM) data
- Mailing address labels
- Diskette labels.

## User-Specified Names

You will specify names for each of your Library diskettes and for each of the library members stored in your library. The names, however, must consist of from 1 to 8 alphanumeric characters (A–Z and 0–9) with no embedded blanks. Also, the first character in a name must be a letter. Do not use ALL or WC or LOCALCHG for names; they are reserved.

The names you choose should bear some relation to your network and should be unique throughout the network. Choose names that can be grouped for ease of access from the database. For example, part of each name in a group could be the building number in which the controllers are housed. Other designations might be a network identifier or a machine serial number. For a Library on a fixed disk the Library subdirectory name is always LIB00001. This name is automatically assigned when the Parameter Assignments Panel is processed. For more information on user-specified names, see Appendix A “Tips on Managing the Network from the Central Site” and “Library Member Naming Convention.”

## Library Member Naming Convention

**For central site change management only:**

When you are assigning names to central site library members, it is recommended that you give the library member for a particular 3174 the same name you assigned the luname for that 3174. An luname (pronounced ell-you-name) is used in programming to represent the address of an input/output unit.

You can assign the luname with the CSC utility at your central site or with the local customizing utility at each controller. The lunames you use also have to be defined to ACF/VTAM and NetView DM.

**Naming Convention Example:** You have assigned an luname of S050600A to one 3174 and S050600B to another 3174. The library member name should match the luname of S060500A for the first 3174 and then S050600B for the other 3174.

Consider using a sequential order for your naming convention, such as:

```
S0506001  
S0506002  
S0506003  
S0506004  
S0506005
```

## Library Member Version Numbers

Library Member Version numbers are only used with central site change management (CSCM).

You use library member version numbers as a record-keeping device and as a way to uniquely identify a changed version of customization data for a particular 3174. Each library member must have a unique name, so you **cannot** store data as two library members with the same name even if the version number is being changed. We recommend using actual dates as your version numbers to help you keep track of the last time any or all library members were changed.

Though CSCU does not allow you to store different versions of customizing data with the same member name, NetView DM does allow you to do this. NetView DM will store the members in its resource repository and allow you to retrieve the different members by using the version number. This is a way for you to keep old versions of your library members in the repository and maintain the latest version in your library.

The Central Site Customizing Utility provides two methods of assigning version numbers:

1. User-Assigned
2. Defaults assigned by the utility.

For CSCM we recommend that you always use the same method, and the best method is to always assign your own version numbers. A date is useful to track the last time a library member was changed.

### User-Assigned Version Numbers.

When you assign your own version numbers, you can use alphanumeric characters **A** through **Z** and **0** through **9**. A version number is 1 to 6 characters in length.

The Parameter Assignments panel has a line called "Default Version" number. Each time you invoke the Central Site Customizing Utility this option is set to **Y** for yes on the panel. To assign your own version numbers, change the **Y** to an **N**. You will be prompted later to type in a version number for the library member you are working with.

Figure 1-1 on page 1-5 shows some examples of assigning your own version numbers. **Be aware** that if you are doing a Put or a Microcode Upgrade to multiple library members, the version number you use will be assigned to all of those members. Put Data is a function provided by the Central Site Customizing Utility. See "Put Data Panel" on page 3-16 for details.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
PAM	CFG	MAR028	CFG	MAR028
	PAM	FEB018	PAM	JUN019
	AEA	FEB018	AEA	FEB018

**Note:** In this example PAM is being “put” with an assigned version number of JUN019. CFG and AEA remain unchanged.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
CFG	CFG	MAR028	CFG	JUN019
	PAM	FEB018	PAM	FEB018
AEA	AEA	FEB018	AEA	JUN019

**Note:** In this example CFG and AEA are being “put” with an assigned version number of JUN019. PAM remains unchanged.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
	CFG	MAR028	CFG	MAR028
	PAM	FEB018	PAM	FEB018
AEA	AEA		AEA	JUN019

**Note:** In this example this library member did not contain AEA data. The AEA data is being “put” with an assigned version number of JUN019.

Figure 1-1. Library Member User Specified Version Numbers

## Default Version Numbers

The initial default value for a version number is a 1 left justified with five spaces. When you use default version numbers, the utility increments the version number by 1 based on the highest current version number of the data being “put” to a library member. For example, if you are doing a Put of configure data and its version number is 5, the new default version number will be 6. Put Data is a function provided by the Central Site Customizing Utility. See “Put Data Panel” on page 3-16 for details. Figure 1-2 on page 1-6 shows some examples of using the default library member version numbers provided by the Central Site Customizing Utility and how the utility assigns the version numbers.

The following examples assume you have always used default version numbers. If you were assigning your own version numbers and you switch to default version numbers, the Central Site Customizing Utility assigns the version numbers in a different way. **Be aware** that if you are doing a Put or a Microcode Upgrade to multiple library members, the same default version number will be assigned to all of the members you are doing a Put Data to.



**Note:** For microcode upgrades to multiple members, if some or all of the members are already at the microcode level to which you are upgrading, the upgrade will not take place and the version number will not be changed.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
PAM	CFG	2	CFG	2
	PAM	1	PAM	2
	AEA	1	AEA	1

**Note:** In this example with PAM being “put,” the version number changes from 1 to 2.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
CFG	CFG	2	CFG	3
	PAM	1	PAM	1
AEA	AEA	1	AEA	3

**Note:** In this example CFG and AEA are being “put.” CFG had the highest old version number. Now CFG and AEA have a version number of 3.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
	CFG	3	CFG	3
	PAM	3	PAM	3
AEA	AEA		AEA	1

**Note:** In this example AEA data was not in this library member before the Put Data was performed.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
CFG	CFG	8	CFG	9
	PAM	3	PAM	3
AEA	AEA	1	AEA	9

**Note:** In this example CFG and AEA are being “put.” CFG had the highest old version number. Now CFG and AEA have a version number of 9.

Figure 1-2. Library Member Version Numbers

## Changing from User-Specified to Default Version Numbers

Changing your method of assigning version numbers is not recommended. However, Central Site Customizing does allow you to do this. Simply leave the "Default Version Number" line on the Parameter Assignments panel set to Y and default version numbers will be assigned when you perform a Put Data or Microcode Upgrade function.

**Note:** For microcode upgrades, if some or all of the members are already at the microcode level to which you are upgrading, the upgrade will not take place and the version number will not be changed.

Figure 1-3 shows some examples of what happens when you use default version numbers for library members that previously had user-specified version numbers.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
PAM	CFG	MAR028	CFG	FEB018
	PAM	FEB018	PAM	1
	AEA	FEB018	AEA	FEB018

**Note:** In this example PAM is being "put" using a default version number. CFG and AEA remain unchanged.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
CFG	CFG	MAR028	CFG	1
	PAM	FEB018	PAM	FEB018
AEA	AEA	FEB018	AEA	1

**Note:** In this example CFG and AEA are being "put" using a default version number. PAM remains unchanged.

Data Type Being Put	Data Types in Member	Old Version Number	Data Types In Member	New Version Number
AEA	CFG	MAR028	CFG	MAR028
	PAM	FEB018	PAM	FEB018
	AEA		AEA	1

**Note:** In this example the library member did not contain AEA data. The AEA data is being "put" with a default version number.

Figure 1-3. Changing User-Specified Version Numbers

---

## Working Copy

The *working copy* consists of a set of customizing data and label data that is maintained in your controller's main storage while Central Site Customizing is active. The working copy is not saved, however, when you exit Central Site Customizing.

Each time you invoke the Central Site Customizing Utility the working copy is composed of default values for each of the data types. The working copy comprises four data types:

- Label data
- Configure data
- AEA Configure data
- Printer authorization matrix (PAM) data.

**Note:** You should already be familiar with Configure, AEA Configure, and PAM, which are defined in the *3174 Utilities Guide*. Label data (including diskette label and mailing-address label) is a special function, available in Central Site Customizing, that enables you to define the mailing address of a 3174 that is being created or modified. Mailing address labels and Control diskette labels can be printed on a printer attached to the controller.

Using the Get Member Data function, you can retrieve the data types listed above from a library member, a Control disk, or a set of parameter defaults. The data remains usable in main storage as long as the Central Site Customizing Utility is active.

You tailor the data types in the working copy to meet the requirements of a particular controller, by performing the following functions:

- Define Labels
- Configure
- AEA Configure
- Define PAM.

After tailoring, the contents of the working copy can be saved on a Library diskette or a library subdirectory on a fixed disk by the Put Member Data function. The working copy remains unaltered in main storage, however, so that you can tailor it again, or use it as is for other controllers.

**Note:** If the library member or Control disk in working copy is configured for Token-Ring Gateway support, a large amount of Library disk space is used when you store the member data onto your Library disk. When you finish working with library members configured for Token-Ring Gateway support and the next library member is configured for a different type of host attachment, you should clear working copy and reload it from another Control disk or library member that is configured for the same type of host attachment. For example, assume the current library member in working copy was configured for SNA channel attachment. The next library member you want to work with is configured for BSC remote attachment. In this case you should clear working copy and then use the Get Member Data function to load the new library member into working copy.

In addition to the Get Member Data and the Put Member Data functions, there are other functions you will use in Central Site Customizing: Browse, Generate, Delete and Microcode Upgrade. Some of these functions, when executed, will alter the

contents of the working copy. The following table indicates which do and which do not:

Do Alter	Do Not Alter
Get Member Data	Put Member Data
Define Labels	Browse
Configure	Delete
AEA Configure	Create Library Diskette
Define PAM	
Generate Diskettes	
Microcode Upgrade	
Generate Labels	
Generate Diskettes and Labels	

---

## Creating the Library Disk

The Central Site Customizing Utility can create a Library diskette or a library subdirectory on a fixed disk. The Library diskette or library subdirectory is used to store library members and their customizing data. You assign each Library diskette a name when you create it. The name for the library subdirectory on the fixed disk is always LIB00001.

The Central Site Customizing Utility can format, then initialize, a Library disk from either a blank disk or one that was previously used.

The Library diskette is formatted and initialized by means of the Create Library Diskette function. This function is done by selecting Option 1 from the Central Site Customizing Menu.

The Library subdirectory on a fixed disk is formatted, initialized, and named when a fixed disk is specified as the Library disk drive on the Parameter Assignments panel and then the panel is processed. Only one Library disk subdirectory can reside on a fixed disk.

### Notes:

1. If you are using a 3174 that has only one diskette drive and one fixed disk, be aware that the central site library has to reside on the fixed disk. You cannot use Library diskettes with this hardware configuration. However, you can copy existing Library diskettes to the fixed disk. See "How to Copy Files" in *3174 Utilities Guide*.
2. When you copy Library diskettes to a fixed disk that has existing library members in the LIB subdirectory, only those library members that are not already present on the fixed disk will be copied from the diskette to the fixed disk.

More information about the Create Library Function and the Parameter Assignments Panel is provided in Chapter 3.

---

## Creating and Modifying Members

You can create a library member at the central site by using a 3270 display station and tailoring the data you have loaded into working copy, to reflect the physical configuration of a particular controller.

Initially, the working copy is composed of default values for each data type. After tailoring by Configure, AEA Configure, Define PAM, or Define Labels, the working copy contains parameters that meet the requirements of a controller. These parameters can be changed each time you want to create a new member.

To modify an existing member, load the member file from its Library disk (using the Get Member Data function) into the working copy and tailor it accordingly.

When customizing is completed, the working copy, containing the member file, is saved back on the Library disk with the member name by use of the Put Member Data function. If the member name already exists in the network library, its customizing parameters are updated. If the member name does not exist, a new member, with customized parameters, is added to the library.

To create members with similar configurations, simply modify the working copy and add it to the network library.

---

## The Browse Member Function

You can browse the contents of each library member contained on a Library disk, or in the working copy, by means of the Browse Member function.

The Central Site Customizing Utility, through prompting by you, displays a list of the library members contained on a Library disk. For controllers that are configured to support central site change management, canonical names are displayed. You select the library member that you want to browse, and the Central Site Customizing Utility presents you with a table of contents for that member. You can then browse all the customizing parameters related to the member, but you cannot change any of them.

The advantage of the Browse Member function is that it enables you to view quickly and easily the parameters for each library member contained on the Library disk. Furthermore, there is no need to load the contents of any library member into working copy or to maintain a hard copy in order to look at it.

---

## Generating Control Diskettes

The Central Site Customizing Utility lets you generate customized Control diskettes from member data in the network library and from the Control disk located in the drive you specify on the Parameter Assignments Panel. Using the Library Members panel with Generate as the option selected, you choose the members (controllers) you want Control diskettes generated for. The customizing parameters are written onto a separate Control diskette for each member chosen.

## Master Control Diskette

You should create a master Control diskette that contains, in addition to the controller microcode, any patches, RPQs, or modified keyboard tables that apply to your controllers. This allows you to use the Full Generate function to create output diskettes. If you cannot use the Full Generate function, a number of copies of the master Control diskette can be created by means of the Copy procedure. For an explanation of the Copy procedure, see "How to Copy Files" in the *3174 Utilities Guide*. These copies can then be customized individually, by use of Central Site Customizing, each with a different controller's parameters. See "Generating a Control Diskette" on page 2-7 for information about using the full generate function.

## Control Diskette Generation Process

After creating a number of copies of the master Control diskette by means of the Copy procedure, use the Gen function (see "Generate Diskettes Panel" on page 3-27) to copy the customizing parameters onto each copy of the master Control diskette. Thus, each copy of the master Control diskette becomes an output Control diskette.

If the 1.0MB Storage Expansion feature is installed, you can load the contents of the master Control diskette in main storage (see "Hardware Requirements" on page 1-14). You are then able to generate output Control diskettes the following way:

With the master Control diskette data loaded into main storage, use the FullGen function (see "Generate Diskettes Panel" on page 3-27) to copy the master Control diskette data onto an output diskette. You can make Output diskettes from blank diskettes or previously used 3174 diskettes. Then the individual customizing parameters are copied from a Library disk onto the output Control diskette.

## Generate Labels Function

The Central Site Customizing Utility allows you to print, from the network library, either mailing address labels, diskette labels, or both. Both label types can be printed, one type after the other, for each library member specified, on a printer attached to the Central Site Customizing controller.

Two printers can be used: one for printing labels and one for local copy. This avoids the need to change forms when switching from local copy to generating labels. You can select which printer (only one printer can function at a time) to activate by means of the Print Ident key. See "Local Copy" in the "Keeping Records" appendix of the *3174 Utilities Guide*.

Although the choice of printer forms is yours, labels should be printed on single-label-wide continuous forms. The label should be plain, with a gummed backing. You are responsible for the proper setting of the printer forms controls, for example, lines per page and characters per line. To print an IBM-equivalent diskette label, the character spacing should be 15 characters per inch or greater. See "Hardware Requirements" on page 1-14 for a list of printers that can be used for printing diskette labels.

The diskette label information is stored on each 3174 diskette and is accessible to the Central Site Customizing Utility. The Central Site Customizing Utility accepts a label consisting of a maximum of 6 lines, 68 characters per line. The fourth line of

the Control diskette label contains information you specify during the Define Labels function, such as building number or a control number.

Figure 1-4 shows the minimum and maximum dimensions of the diskette label. For example, a label 5 inches by 15/16 of an inch can be used for printing 8 lines per inch; a label 4-3/4 inches by 1-1/4 inches can be used for printing 6 lines per inch.

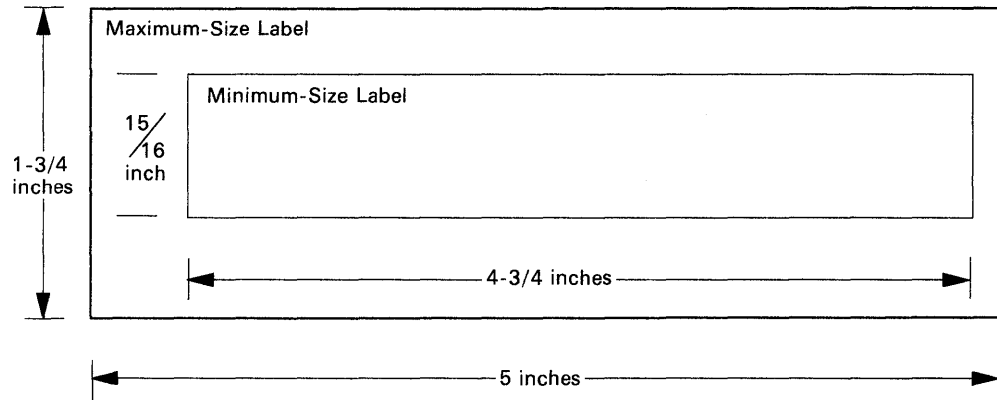


Figure 1-4. Minimum and Maximum Dimensions of Diskette Label

## Microcode Levels

The data files or members stored on a Library disk may be at different microcode levels. You can store up to five different microcode levels on a library diskette and 10 different microcode levels in your library subdirectory on a fixed disk.

A microcode level represents the status of the microinstructions used in a program at a given time. A microcode level consists of the Configuration, Release, Suffix, and Maintenance levels. The microcode level appears as shown below:

```

Microcode level- A1.0
  |||
  || Suffix level
  | Release level
  Configuration level
  
```

The Maintenance level appears by itself and represents the Julian date; for example, 1 April 1986 would appear as 86091. The Maintenance level is not significant in Central Site Customizing.

You can store library member data at up to five different microcode levels on your Library diskettes or up to 10 different microcode levels in your Library subdirectory on a fixed disk. There are restrictions, however, as the following table shows.

Options	Microcode Levels
Browse, Get, Microcode Upgrade, Generate Labels, Delete	The microcode level of the library member can be less than or equal to the microcode level of the Utility disk.
Generate Diskettes, Put, Generate Diskettes and Labels	The microcode level of the library member and the microcode level of the Utility disk must match.

**Notes:**

1. If an incorrect microcode level is used, you will receive an error message.
2. For Central Site Customizing, the minimum level for any library member stored in your library is A3.0 or S4.0.
3. For central site change management, the minimum level for any library member stored in your library is A4.0 or S4.0.

## Microcode Level Support and Controller Models

The library members in your central site library are supported at the following microcode levels on 3174 Models 1L, 1R, 2R, 3R, 51R, 52R, and 53R:

- A3.0, A4.0, A5.0, or higher, and any suffix levels such as A3.1
- S4.0, S5.0, or higher, and any suffix levels such as S4.1

The above models support all library members in your central site library regardless of the microcode levels of the members.

The library members in your central site library are supported at the following microcode levels on 3174 Models 11L, 11R, 12R, 13R, 61R, 62R, and 63R:

- A5.0 and higher.

If you store your central site library on one of these models, you must perform a microcode upgrade of all of your library members to microcode release A5.0 or higher. Previous microcode levels cannot be used on these models of the 3174 Establishment Controller.

## Microcode Upgrade

The Central Site Customizing Utility will upgrade to its own microcode level the microcode customizing parameters of a library member that is at a lower Release level or lower Suffix level.

The microcode level of the Central Site Customizing Utility must match that of the library member before you can modify it or generate Control diskettes from it. To use the Central Site Customizing Utility at a higher microcode level than that of your library members, you must upgrade the library members to the higher level. This is accomplished by use of the Microcode Upgrade Member Data option, part of the Create/Modify Member function.

Note that the Get Member Data function causes an automatic microcode level upgrade in working copy. Do not use the Get function to upgrade an existing library member. Use the Microcode Upgrade function instead.



**Note:** You should always create a backup copy of a Library disk, using the Copy procedure, before upgrading the microcode of library members on that disk. There might be an occasion when you will need the library member data at the earlier microcode level.

---

## The Customizing Display

You can interact with the Central Site Customizing Utility by means of panels presented to you on your customizing display station. The size of the screen on the display station you are customizing with will determine how much of the panel you will see. For example, a 3278 Model 2 will show only 24 lines of the screen, while a 3278 Model 4 will display 43 lines. The larger the screen, the more information you can display on some panels, such as the number of members shown on the Library Members panel.

---

## Library Disk Maintenance

You should always maintain backup copies of your Library disks. Do not try to safeguard your Library diskettes by using a write-protect tab instead of creating a backup copy. Write-protect tabs are not allowed with the Central Site Customizing Utility. Backup copies can be made with the Copy procedure. This procedure is explained in "How to Copy Files" in the *3174 Utilities Guide*.

It is up to you to keep track of the space you use on a Library disk for storing library member data. Try to avoid writing your disks to full capacity. You will be informed of the amount of Library disk storage space you have used whenever you display the Library Members panel. You can manage the data on the library disk by means of the Create Library Member and Delete Library Member options. These options are available on the Central Site Customizing Menu.

If a Library disk becomes filled with data, you can create space on the disk only by deleting members. A way to create space without losing data is to copy the full disk onto another disk. With two identical disks, delete one-half of the library members from the first disk, and the other half from the other disk.

---

## Hardware Requirements

The Central Site Customizing Utility requires the following at the Central Site Customizing controller:

- A 3270 customizing display station must be attached to port 26-00 of a 3174 controller. (A large display screen is most desirable.)
- The 3174 must be offline.
- The 3174 controller must have at least two diskette drives, or one diskette drive and one fixed disk.

**Note:** If you are using a 3174 that has only one diskette drive and one fixed disk, be aware that the central site library has to reside on the fixed disk. You cannot use Library diskettes with this hardware configuration. However, you can copy existing Library diskettes to the fixed disk. See "How to Copy Files" in the *3174 Utilities Guide*.

The following items are optional, but are recommended:

- Additional storage (see Table 1-1)
- A 3270 printer.

The following is a list of printers that you can use for generating diskette labels:

- 3268 Color Printer Models 2 and 2C
- 5210 Printer Models G1 and G2
- 4214 Printer Model 1
- 4224 Printer Models 201, 202, 2C2, 2E2
- 4234 Dot Band Printer Model 1.

See the *3174 Utilities Guide* for a list of printers that you can use for local copy.

Table 1-1. Storage Requirements	
Feature/Function	Minimum Storage Required
2 diskette drives without a diskette image loaded in main storage	1.0 megabyte
2 diskette drives with a diskette image loaded in main storage (FullGen function, see page 3-27).	2.0 megabytes
1 or 2 diskette drives and 1 fixed disk without a diskette image loaded in main storage	1.0 megabyte
1 or 2 diskette drives and 1 fixed disk with a diskette image loaded in main storage (FullGen function, see page 3-27).	2.5 megabytes
1 or 2 diskette drives and 2 fixed disks without a diskette image loaded in main storage.	1.5 megabytes
1 diskette drive and 2 fixed disks with a diskette image loaded in main storage (FullGen function, see page 3-27).	2.5 megabytes
2 diskette drives and 2 fixed disks without a diskette image loaded in main storage.	1.5 megabytes
2 diskette drives and 2 fixed disks with a diskette image loaded in main storage (FullGen function, see page 3-27).	2.5 megabytes

## Microcode Requirements

The minimum microcode levels of the Utility disk required to use the Central Site Customizing Utility are:

- Configuration Support A, Release 3.0
- Configuration Support S, Release 4.0.

The minimum microcode levels required to use central site change management are:

- Configuration Support A, Release 4.0
- Configuration Support S, Release 4.0.

---

## Restrictions

Before performing Central Site Customizing, be aware of the following restrictions:

- The Configuration levels of the Utility disk and of the library member must match.
- The microcode levels of the Utility disk and of the library member must match if you want to do either of the following:
  - Use the Put function to store customizing data into library members.
  - Generate customized Control disks.

If the microcode level of a library member is a later version than the current Utility disk, you must perform an Alt 1 IML on the 3174 with the matching Utility disk to perform the Put and the Generate Disk functions.

- The minimum microcode level for a library member is either A3.0 or S4.0 for Central Site Customizing.
- The minimum microcode level for a library member is either A4.0 or S4.0 for central site change management.
- A maximum of five different microcode levels can be stored on a Library diskette.
- A maximum of 10 different microcode levels can be stored in a Library subdirectory on a fixed disk.
- As many as 210 library members can be stored on a Library diskette. The maximum number is determined by the amount of customizing data contained in each member. If all possible types of customizing data are specified for each member and stored on the Library diskette, the maximum number of library members you can store on a diskette will be less than 210.
- As many as 3300 library members can be stored on a Library fixed disk. The maximum number is determined by the amount of customizing data contained in each member. If all possible types of customizing data are specified for each member and stored in the Library subdirectory on a fixed disk, the maximum number of library members you can store on a fixed disk will be less than 3300.
- If you perform a Get Data function on a library member that is at a lower level than your Central Site Customizing Utility and an automatic update occurs, you cannot put that data back into that member.
- The Central Site Customizing Utility does not permit you to use write-protect tabs on any of your diskettes.
- The printer you use to generate labels must support 15 characters per inch (CPI) to print a Control diskette label.
- Label Printing and Local Copy cannot be performed concurrently on two separate printers. Both functions use the printer identified for local copy.

---

## Chapter 2. How to Use Central Site Customizing

This chapter contains a number of examples on how to do the tasks involved in Central Site Customizing. If you need any help in using the panels discussed here, refer to Chapter 3, "The Central Site Customizing Panels."

In discussing the examples contained in this chapter, it is assumed that you are familiar with the operation of a 3174 Establishment Controller and that you are working with a 3270 display station that is attached to port 26-00 of an offline 3174 controller.

**Note:** Keyboards that contain the keys PF13 through PF24 are mapped into keys PF1 through PF12; for example, PF13 is PF1 and PF15 is PF3.

**Warning:** Do not remove a diskette from a diskette drive while the drive is turning. Make sure that the red indicator on the diskette drive is off before removing a diskette.

**Warning:** For fixed disks, do not interrupt utilities that are in progress. Wait for a normal utility completion message to display before you attempt any other 3174 operations. Interrupting a utility could cause you to lose data on your fixed disk.

---

## Displaying the Central Site Customizing Menu

The first step in using Central Site Customizing is to display the Central Site Customizing Menu. You select it from the Master Menu. Displaying the Master Menu is covered in “How to Display the Master Menu” in the *3174 Utilities Guide*. After that, the first Central Site Customizing panel you come to is the Date & Time panel, which is used to set the clock in the 3174 controller. In this example, the date used is July 19, 1987; the time is 9:15 a.m.

```
Master Menu

Select ==> 7
```

1. Type in **7** to select Central Site Customizing.
2. Press ENTER.

```
Date & Time

New Date ==> 7/19/87   New Time ==> 9:15 A
```

3. For this example, type in **7/19/87** and **9:15 A**
4. Press PF8 to go forward to the next panel.

```
Parameter Assignments
```

**Note:** You may use defaults here or see the “Parameter Assignments Panel” on page 3-6 for the parameter assignment values.

5. Press PF8 to go forward to the next panel.

```
Central Site Customizing Menu
```

All other tasks follow from the Central Site Customizing menu.

---

## Creating a Library Diskette

The Central Site Customizing Utility requires a facility to store the customizing parameters for each controller in your network. This facility is provided by the Library diskette or the subdirectory on a fixed disk. This example shows how to create a Library diskette. Creating a subdirectory on a fixed disk is shown in "Creating a Library Subdirectory on a Fixed Disk" on page 2-4. You create a Library diskette, using either a blank or a previously used 1.2 MB diskette, by selecting Option 1, Create a Library Diskette, from the Central Site Customizing Menu. The Create Library Diskette panel lets you name the new Library diskette. In our example, the name is REGION01. A Library diskette name consists of 1 to 8 alphanumeric characters.

```
Central Site Customizing Menu
Select ==> 1
```

1. Type in **1** to select Create a Library Diskette.
2. Press ENTER.

```
Create Library Diskette
Library Diskette Name ==> REGION01
```

3. For this example, type in **REGION01**
4. Press ENTER.
5. When prompted, insert a diskette and press ENTER.
6. When a message displays indicating the task is done, press PF3 to quit and to return to the Central Site Customizing Menu.

```
Central Site Customizing Menu
```

## Creating a Library Subdirectory on a Fixed Disk

This example shows how to create a library subdirectory on a fixed disk. Creating a Library diskette is shown in "Creating a Library Diskette" on page 2-3. You create a Library subdirectory on a fixed disk by specifying fixed disk 03 or 04 as the Library disk on the Parameter Assignments Panel. You **cannot** specify a name for the Library subdirectory; it is automatically assigned and is always LIB00001.

```
Master Menu

Select ==> 7
```

1. Type in **7** to select central site customizing.
2. Press ENTER.

```
Date & Time

New Date ==> 7/19/87   New Time ==> 9:15 A
```

3. For this example, type in **7/19/87** and **9:15 A**
4. Press PF8 to go forward to the next panel.

```
Parameter Assignments
Utility Level: ....

Verify selections
Disk Drive Assignments (Available 1 2 3 4)
Drive for Control Diskette      ==> 1
Drive for Library Disk          ==> 3
```

5. For this example, type in **3** to create the library subdirectory.
6. Press PF8 to go forward to the next panel.

```
Central Site Customizing Menu
```

All other tasks follow from the Central Site Customizing Menu.

---

## Creating a Library Member

To create a library member, you do the following:

1. Tailor the data in the working copy.
2. Put the tailored data onto the Library disk.

In this example, you will tailor the working copy, using the Configure procedure, and then put the Configure data into a new library member. The name of the library member that you will create for that controller is KB970N01.

```
Central Site Customizing Menu
Select ==> 2
```

1. Type in **2** to select Create/Modify Library Member(s).
2. Press ENTER.

```
Create/Modify Member

Select ==> 5
```

3. For this example, type in **5** to select the Configure procedure.
4. Press ENTER.

```
Model/Attach

099-
100- XXX
101- X
```

The Model/Attach panel is one of a set of configuration panels that will be displayed.

Change the configuration question responses as required on the appropriate panel(s).

```
Configure Complete
```

5. Press PF12 to save the responses in the working copy.

**Note:** The working copy now contains Configure data that you want to store on the Library diskette.



Create/Modify Member

Select===> 2

6. Type in **2** to select Put Member Data into the Library.

7. Press ENTER.

Put Data

Label            ===> N  
Configure        ===> Y  
AEA Configure    ===> N  
PAM              ===> N

8. For this example, type in the **Y** and **Ns** as shown above to select just the Configure data.

9. Press ENTER.

Library Members

Option: Put

===> KB970N01

10. For this example, type in **KB970N01**

11. Press ENTER.

12. When a message displays stating that this is a new member, press ENTER.

A message tells you when the task is done.

The Library Members panel will display the following:

Library Members

Option: Put

\* KB970N01 7/19/87 9:30 A A3.0

13. Press PF3 to quit and to return to the Central Site Customizing Menu.

Central Site Customizing Menu

---

## Generating a Control Diskette

Here you will generate a Control diskette that is customized for a particular controller. The name of the library member that you are generating a Control diskette for is KB970N01.

### Notes:

1. The microcode levels of the Central Site Customizing Utility and the library member must match.
2. Depending on the hardware installed in your controller, different amounts of storage are required to support this procedure. If you did not specify Control diskette in memory on the parameter assignments panel, you can not do a Full Generate. You must make a copy of the master Control diskette, using the Copy Procedure, before performing this example. See Table 1-1 on page 1-15 to determine if you have enough storage. See "How to Copy Files" in the *3174 Utilities Guide* for information on how to do a full copy.
3. Do not use a write-protect tab on the Library diskette.
4. When you exit this Generate function to perform another function you have to reload your Control disk image into 3174 memory.

```
Central Site Customizing Menu
Select ==> 5
```

1. Type in **5** to select Generate Diskette(s).
2. Press ENTER.

```
Library Members
Option: Generate Disks
X KB970N01 7/19/87 9:30 A A3.0
```

3. Type in **X** to select the library member for processing.
4. Press ENTER.

```
Generate Diskettes
Member Name: KB970N01
```

If your controller has enough storage installed, you can use Generate methods 1 or 2. If your controller does not have enough storage installed, you can only use Method 2. Following are the two methods:

**Method 1 – Full Generate (FullGen PF10)**

Here you will copy the master Control diskette data and the customizing data from library member KB970N01 onto an output diskette. We will assume that this is the first time you are using FullGen; thus, the master Control diskette must be loaded into main storage first.

- a. Press PF9 to load the master Control diskette into main storage.
- b. When you are prompted, insert the master Control diskette and press ENTER.

A message tells you that the task is done.

**Note:** The master Control diskette is loaded into main storage.

- c. Press PF10 to start the Full Generate process.

A prompt says to insert a diskette.

- d. When you are prompted, insert a diskette and press ENTER.

A message tells you that the task is done.

- e. Press PF3 to quit and to return to the Central Site Customizing Menu.

Central Site Customizing Menu

**Method 2 – Generate (Gen PF12)**

Here you will copy the customizing data from library member KB970N01 onto a copy of the master Control diskette.

- a. Press PF12 to start the Generate process.
- b. When you are prompted, insert a copy of the master Control diskette and press ENTER.

A message tells you that the task is done.

- c. Press PF3 to quit and to return to the Central Site Customizing Menu.

Central Site Customizing Menu

## Creating a Member from a Control Diskette

To create a member from a Control diskette, you do the following:

1. Get the data from the Control diskette into working copy.
2. Put the data onto the Library disk.

Here you will create a library member from a previously customized Control diskette that is at a lower microcode level. The back-level diskette was used in a controller prior to the availability of Central Site Customizing. At this point, however, you want to put its customization parameters onto the Library disk. The name of the library member in this example is KB963N01.

```
Central Site Customization Menu

Select====> 2
```

1. Type in **2** to select Create/Modify Library Member(s).
2. Press ENTER.

```
Create/Modify Member

Select ==> 1
```

3. Type in **1** to select Get Member Data.
4. Press ENTER.

```
Get Data

Label      ==> N          1   Library Disk
Configure  ==> Y          2   Control Diskette
AEA Configure ==> N          3   Default
PAM        ==> Y

Select ==> 2
```

5. For this example, type in **Ys** and **Ns** as shown above to select Configure data and PAM data.
6. Type in **2** to select the Control diskette as the source of the data.
7. Press ENTER.

A message asks you to insert the Control diskette. For this example, use a Control diskette that is at a lower microcode level than the Utility disk you are using.

8. Press ENTER.

In this example, a message tells you that microcode is being upgraded in the working copy.

Another message tells you the task is done.

**Note:** In this example, the working copy now contains the upgraded Configure data and the PAM data that you want to store on the Library disk.

9. Press PF7 to go back to the previous panel.

```
                Create/Modify Member

Select ==> 2
```

10. Type in **2** to select Put Member Data into the Library.
11. Press ENTER.

```
                Put Data

Label          ==> N
Configure      ==> Y
AEA Configure  ==> N
PAM            ==> Y
```

12. For this example, type in the **Ys** and **Ns** as shown above to select Configure and PAM.
13. Press ENTER.

```
                Library Members

                Option: Put

==> KB963N01
```

14. For this example, type in **KB963N01**
15. Press ENTER.  
A message tells you that this is a new member.
16. Press ENTER.  
Another message tells you the task is done.

You should see the following display:

```
Library Members
Option: Put
* KB963N01 7/19/87 9:38 A A3.0
```

17. Press PF3 to quit and to return to the Central Site Customizing Menu.

```
Central Site Customizing Menu
```

## Updating a Library Member

To update a library member, you do the following:

1. Get the data into working copy.
2. Tailor the data in working copy.
3. Put the tailored data back onto the Library disk.

In this example, you will use the configuration data for KB970N01.

**Note:** The microcode levels of the Utility disk and of the library member must match.

```
Central Site Customizing Menu

Select ==> 2
```

1. Type in **2** to select Create/Modify Library Member(s).
2. Press ENTER.

```
Create/Modify Member

Select ==> 1
```

3. Type in **1** to select Get Member Data.
4. Press ENTER.

```
Get Data

Label      ==> N          1   Library Disk
Configure  ==> Y          2   Control Diskette
AEA Configure ==> N          3   Default
PAM        ==> N

Select ==> 1
```

5. For this example, type in the **Y** and **Ns** as shown above, to select the Configure data.
6. Type in **1** to select Library Disk as the source of the data.
7. Press ENTER.

```
Library Members
Option: Get
X KB970N01 7/19/87 9:30 A A3.0
```

8. Type in **X** to select the library member for processing.
9. Press ENTER.

A message tells you when the task is done.

**Note:** In this example, the working copy now contains the Configure data.

10. Press PF7 to go back to the previous panel.

```
Get Data
```

11. Press PF7 to go back to the previous panel.

```
Create/Modify Member
Select ==> 5
```

12. For this example, type in **5** to select the Configure procedure.
13. Press ENTER.

```
Model/Attach
```

14. The Model/Attach panel is one of a set of configuration panels that will be displayed.

Change the configuration question responses as required on the appropriate panel(s).

15. When finished, press PF12 to save the responses and to return to the Create/Modify Member panel.

**Note:** The working copy now contains Configure data that you want to store on the Library disk.

```
Create/Modify Member
Select ==> 2
```

16. Type in **2** to select Put Member Data into the Library.
17. Press ENTER.



```
Put Data
Label      ==> N
Configure  ==> Y
AEA Configure ==> N
PAM        ==> N
```

18. For this example, type in the **Y** and **Ns** as shown above to select Configure.
19. Press ENTER.

```
Library Members
Option: Put
X KB970N01 7/19/87 9:30 A A3.0
```

20. For this example, type in **X** to select library member KB970N01.
21. Press ENTER.

A message tells you that the task is done.

You should see the following display:

```
Library Members
Option: Put
* KB970N01 7/19/87 9:45 A A3.0
```

22. Press PF3 to quit and return to the Central Site Customizing Menu.

```
Central Site Customizing Menu
```

---

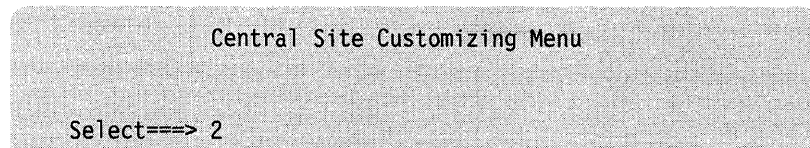
## Creating a Similar Member

To create a similar member, you do the following:

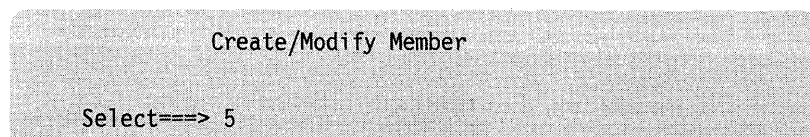
1. Get the data into working copy.
2. Tailor the data in working copy.
3. Put the tailored data back onto the Library disk with a new member name.

In this example, you will create a library member with configure parameters similar to those of an existing member. Assuming that the previous task, Updating a Member, was accomplished, the working copy already contains the data for KB970N01. Therefore, the Get function is not needed here.

In this example, you will tailor the working copy using the Configure procedure, and then put the Configure data into a new library member. The name of the new library member will be KB970N02.



1. Type in **2** to select Create/Modify Library Member(s).
2. Press ENTER.



3. For this example, type in **5** to select the Configure procedure.
4. Press ENTER.



5. Change the appropriate configuration question responses.
6. When finished, press PF12 to save the responses and to return to the Create/Modify Member panel.

**Note:** The working copy now contains Configure data that you want to store on the Library disk.

Create/Modify Member

Select ==> 2

7. Type in **2** to select Put Member Data into the library.
8. Press ENTER.

Put Data

Label ==> N  
Configure ==> Y  
AEA Configure ==> N  
PAM ==> N

9. For this example, type in the **Y** and **Ns** as shown above to select Configure.
10. Press ENTER.

Library Members

Option: Put

==> KB970N02

11. For this example, type in **KB970N02** on the command line.
12. Press ENTER.

A message is displayed stating that this is a new member.

13. Press ENTER.

A message tells you that the task is done.

You should see the following display:

Library Members

Option: Put

\* KB970N02 7/19/86 9:50 A A3.0

14. Press PF3 to quit and to return to the Central Site Customizing Menu.

Central Site Customizing Menu

## Browsing Member Contents

In this example, you will browse the contents of library member KB970N01 and its Configure data.

```
Central Site Customizing Menu

Select ==> 3
```

1. Type in **3** to select Browse Library Member(s).
2. Press ENTER.

```
Library Members

Option: Browse
X KB970N01 7/19/87 9:45 A A3.0
```

3. For this example, type in **X** to select the library member for processing.
4. Press ENTER.

```
Browse Library Member
Member Name: KB970N01
1 Label
2 * Configure
3 AEA Configure
4 PAM
Select==> 2
```

5. For this example, type in **2** to select Configure.
6. Press ENTER.

```
Browse Member      Model/Attach      Name: KB970N01
```

7. When finished, press PF3 to quit and to return to the Browse Library Member panel.

```
Browse Library Member
Member Name: KB970N01
```

8. Press PF3 to quit and to return to the Central Site Customizing Menu.

---

## Browsing Working Copy

In this example, you will browse the Configure data in the working copy.

```
Central Site Customizing Menu

Select===> 3
```

1. Type in **3** to select Browse Library Member(s).
2. Press ENTER.

```
Library Members
Option: Browse

===> WC
```

3. Type in **WC** to select the working copy.
4. Press ENTER.
5. For this example, type in **2** to select Configure.
6. Press ENTER.

```
Browse Member          Model/Attach          Name: WC
```

7. When finished, press PF3 to quit and to return to the Browse Library Member panel.

```
Browse Library Member
Member Name: WC
```

8. Press PF3 to quit and to return to the Central Site Customizing Menu.

---

## Defining Labels for Multiple Members

To define a label, you do the following:

1. Tailor the data in working copy.
2. Put the tailored data onto the Library disk.

In the following example, you will define a mailing address label for two controllers whose addresses are the same. You will type in the mailing address information maintained in the working copy. You will then put the label data into two existing members on the Library disk. The controllers, named KB970N01 and KB970N02, are located in Kingston, New York, Building 970.

```
Central Site Customizing Menu
Select ==> 2
```

1. Type in **2** to select Create/Modify Library Member(s).
2. Press ENTER.

```
Create/Modify Member
Select ==> 4
```

3. Type in **4** to select Define Labels.
4. Press ENTER.

```
Label Definition
Address Label:
  IBM CORPORATION
  BUILDING 970 CONTROLLER ROOM
  NEIGHBORHOOD ROAD
  KINGSTON NY 12401
```

5. For this example, type in the **address label information** as shown above.
6. Press PF12 to save label data.

**Note:** The working copy now contains the label data that you want to store on the Library disk.

```
                Create/Modify Member
Select ==> 2
```

- 7. Type in **2** to select Put Member Data into the library.
- 8. Press ENTER.

```
                Put Data
Label          ==> Y
Configure      ==> N
AEA Configure  ==> N
PAM           ==> N
```

- 9. For this example, type in the **Y** and **Ns** as shown above to select Label data.
- 10. Press ENTER.

```
                Library Members
Option: Put
X KB970N02 7/19/87 9:50 A A3.0
X KB970N01 7/19/87 9:45 A A3.0
```

- 11. For this example, type in the two **Xs** to select the two library members for processing.
- 12. Press ENTER.

A message says that there are two members to be processed.

- 13. Press ENTER.

Another message tells you that the task is done.

You should see the following display:

```
                Library Members
Option: Put
* KB970N02 7/19/87 10:20 A A3.0
* KB970N01 7/19/87 10:20 A A3.0
```

- 14. Press PF3 to quit and to return to the Central Site Customizing Menu.

```
                Central Site Customizing Menu
```

---

## Generating Labels for Multiple Members

In the following example, you will generate mailing address labels and Control diskette labels for two controllers. These labels will be printed on the printer used for local copy. The library members for this example are KB970N01 and KB970N02.

For this example, we will assume that you did not select the label types on the Parameter Assignment panel when you started using Central Site Customizing. This will be the first thing you will do.

```
Central Site Customizing Menu
```

1. Press PF7 to go back to the previous panel.

```
Parameter Assignments
```

```
Label Generation Options
```

```
Generate Address Labels (Y/N)      ==> Y  
Generate Diskette Labels (Y/N)     ==> Y
```

2. For this example, type in the **Ys** as shown above, to select both label types.
3. Press PF8 to go forward to the next panel.

```
Central Site Customizing Menu
```

```
Select ==> 6
```

4. Type in **6** to select Generate Labels.
5. Press ENTER.



### Library Members

Option: Generate Labels

```
X KB970N02 7/19/87 10:20 A A3.0
X KB970N01 7/19/87 10:20 A A3.0
```

6. For this example, type in the two **Xs** to select the two library members for processing.
7. Press ENTER.  
A message asks you if there are two members to be processed.
8. Press ENTER.

### Generate Labels

Member Name: KB970N01

9. Press PF12 to start the label generation process.  
A prompt says to insert a Control diskette to obtain the diskette label data.  
**Note:** You should insert a Control diskette that is at the same microcode and maintenance levels as the diskette that this label is for.

10. Press ENTER.

In this example, four labels are printed: a mailing-address label and a Control diskette label for each of the two members.

When generating labels for multiple library members, if you are getting a blank label between printed labels, an extra form feed is occurring. Either change your response to "Form Feed before each Label" to an **N** on the Parameter Assignment panel, or change your printer features to turn off its Form Feed after Each Print feature.

A message tells you that the task is done.

11. Press PF3 to quit and to return to the Central Site Customizing Menu.

### Central Site Customizing Menu

---

## Changing Library Diskettes

In this example, you will change from one Library diskette to another while the Library Members panel is displayed.

**Note:** This is the only time that you can change Library diskettes.  
For libraries stored on fixed disks you have to return the Parameter Assignments panel and change your Library disk selection.

We will assume that you are browsing the library members on the Library diskette REGION01 and that you want to change to Library diskette REGION02, which you had created previously.

```
Library Members
Library Diskette: REGION01
Option: Browse
```

1. For this example, press PF9 to change Library diskettes.  
A message tells you to insert a new Library diskette.
2. Insert the diskette and press ENTER.

The Library Members panel will display the following:

```
Library Members
Library Diskette: REGION02
Option: Browse
```

---

## Microcode Upgrade of Multiple Library Members

In this example, we have chosen the date to be December 2, 1987, and the time 2:10 p.m. You have invoked central site customizing from a new Utility diskette, with a microcode level of A3.1. We will assume that you have made a backup copy of the Library disk and that you now want to upgrade three library members to the new microcode level. The names are KB970N01, KB970N02, and KB963N01.

```
Central Site Customizing Menu

Select==> 2
```

1. Type in **2** to select Create/Modify Library Member(s).
2. Press ENTER.

```
Create/Modify Member

Select ==> 3
```

3. Type in **3** to select Microcode Upgrade Member Data.
4. Press ENTER.

```
Library Members
Utility Level: A3.1
Option: Microcode Upgrade

X KB970N02 7/19/87 10:20 A A3.0
X KB970N01 7/19/87 10:20 A A3.0
X KB963N01 7/19/87 9:38 A A3.0
```

5. For this example, type in the three **Xs** to select the three library members for processing.
6. Press ENTER.  
A message says there are three members to be processed.
7. Press ENTER.  
Messages say that members are being upgraded.  
Another message says the task is done.

You should see the following display:

```
Library Members
Utility Level: A3.1
Option: Microcode Upgrade
* KB970N02 12/02/87 2:15 P A3.1
* KB970N01 12/02/87 2:15 P A3.1
* KB963N01 12/02/87 2:15 P A3.1
```

**Note:** The microcode level of the selected library members is now 3.1.

8. Press PF3 to quit and to return to the Central Site Customizing Menu.

```
Central Site Customizing Menu
```

9. For new functional microcode releases, you may have to answer new configuration questions. See "Updating a Library Member" on page 2-12.

---

## Deleting a Member

This example shows you how to delete a library member that is no longer needed from a Library diskette or Library subdirectory on a fixed disk. The name of the member in this example is KB963N01.

```
Central Site Customizing Menu

Select====> 4
```

1. Type in **4** to select Delete Library Member(s).
2. Press ENTER.

```
Library Members

Option: Delete

X KB963N01 12/02/87 2:15 P A3.1
```

3. Type in **X** to select the library member to be processed.
4. Press ENTER.  
A message says there is one member to be processed.
5. Press ENTER.  
Another message says that the task is done. The member is deleted from the screen.
6. Press PF3 to quit and to return to the Central Site Customizing Menu.

```
Central Site Customizing Menu
```

---

## Chapter 3. The Central Site Customizing Panels

To do Central Site Customizing, you perform a number of tasks involving panels on your display screen. In this chapter you are presented with each of those panels and a description of them. You can see in Figure 3-1 on page 3-2 the relationship of the panels and the order in which you move from one to another.

**Note:** Keyboards that contain the keys PF13 through PF24 are mapped into keys PF1 through PF12; for example, PF13 is PF1 and PF15 is PF3.

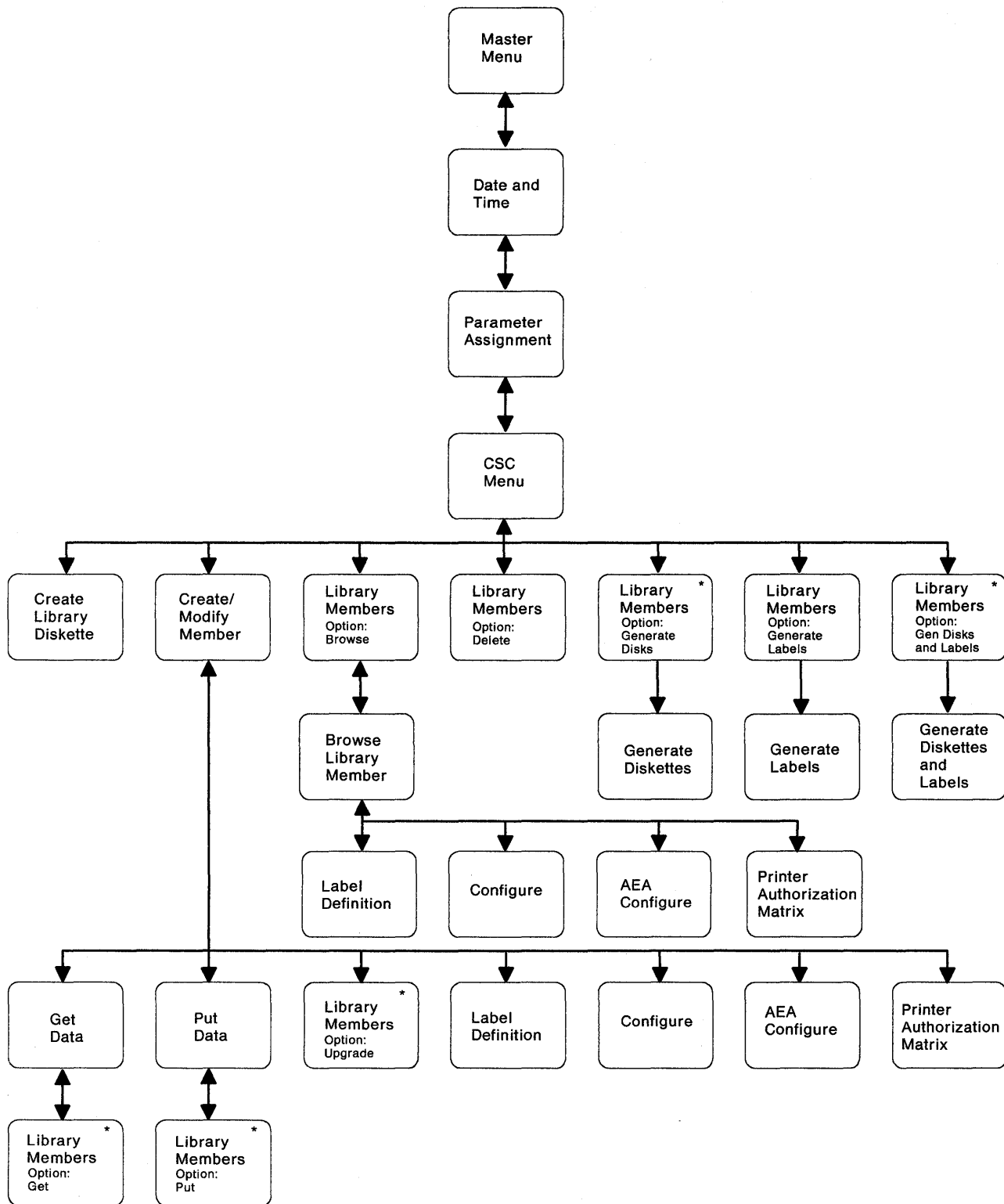


Figure 3-1. Relationship of Central Site Customizing Panels

**Note:** An asterisk (\*) indicates an interutility error panel could be displayed if an interutility error is detected while you are working with one of these panels. For more information, see Appendix B in this manual.

## Master Menu

To use Central Site Customizing, you must first display the Master Menu. See "How to Display The Master Menu" in the *3174 Utilities Guide*.

To begin Central Site Customizing, select Option 7 from the Master Menu.

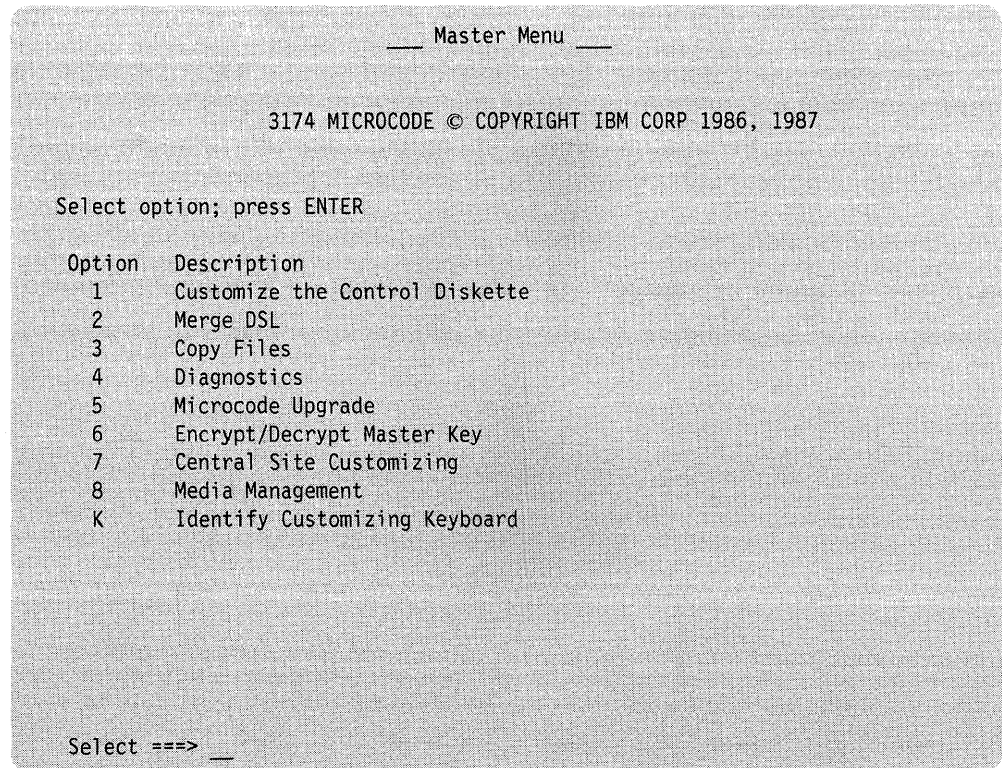


Figure 3-2. Master Menu

The Central Site Customizing Date and Time panel is displayed next.



## Date and Time Panel

The Date and Time panel is presented each time you select Central Site Customizing. It enables you to associate the current date and time with each Central Site Customizing session. The values entered are used to set a clock inside the 3174 controller. The clock is used to time-stamp a member whenever it is updated in the library. It is highly recommended that you enter the current date and time so the values displayed on the Library Members panels are accurate.

```

                                ___ Date and Time ___
Utility Level: ....
Input new Date/Time or change Format(s)
Date: 01/01/80                    Time: 12:00 A
Date Format    ===> 1                Time Format    ===> 1
1 MM/DD/YY      1 12 Hour ( 2:00 P)
2 YY/MM/DD      2 24 Hour (14:00)
3 DD/MM/YY
New Date    ===> __ / __ / __      New Time    ===> __ : __ _
<NNNN-Message area                                     >
PF: 3=Quit                    8=Fwd
```

Figure 3-3. Date and Time Panel

### The PF Keys

PF3 (Quit) returns you to the Master Menu.

PF8 (Fwd), if the responses are valid, saves the new date, time, and format; sets a clock in the controller; and displays the central site customizing Parameter Assignments panel.

### The ENTER Key

The ENTER key validates your responses. If your responses are valid, the new date, time, and format are saved, and the clock is set in the controller.

## Panel Processing

The first time this panel is displayed after an Alt 1 IML, the date and time shown correspond to when Central Site Customizing was last used. The current date and time are shown when this panel is displayed again during Central Site Customizing.

The Utility Level (top left of panel) is the current microcode level of the central site customizing procedure.

You may choose the date format you want by selecting one of the following:

1. MM/DD/YY (Month/ Day/ Year)
2. YY/MM/DD (Year/ Month/ Day)
3. DD/MM/YY (Day/ Month/ Year).

Enter the current date, using the format you have selected, after *New Date* == = > (middle of panel).

Also, you may choose the time format you want by selecting one of the following:

1. 12 Hour (2:00 P)
2. 24 Hour (14:00).

Enter the current time, using the format you have selected, after *New Time* == = > (middle of panel).

**Note:** The date and time formats that you choose will also be used on the Library Members panel.

## Parameter Assignments Panel

The Parameter Assignments panel enables you to define some of the central site customizing parameters. For example, the disk drive assignments will be used to prompt you later when you insert diskettes into those drives. The label generation options are used when you are generating labels for library members.

```

_____ Parameter Assignments _____
Utility Level: .....

Verify selections

Disk Drive Assignments (Available 1 2 3 4)

  Drive for Control Diskette          ==>>> 1
  Drive for Library Disk              ==>>> 2

Control Diskette in Memory           ==>>> N

Label Generation Options

  Generate Address Labels (Y/N)       ==>>> N
  Generate Diskette Labels (Y/N)     ==>>> N
  Form Feed before each Label (Y/N)  ==>>> Y

Electronic Distribution

  Default Version Number              ==>>> Y

<NNNN-Message area                                     >

PF: 3=Quit          7=Back          8=Fwd
```

Figure 3-4. Parameter Assignments Panel

### The PF Keys

PF3 (Quit) returns you to the Master Menu.

PF7 (Back) returns you to the Date and Time panel.

PF8 (Fwd), if responses are valid, causes the Central Site Customizing Menu to be displayed.

### The ENTER Key

The ENTER key validates your responses.

### Panel Processing

When you use the Central Site Customizing Utility for the first time, default values will be displayed. Otherwise, the values displayed will be those entered during the previous central site customizing session if you saved them by pressing PF12 on the CSCU main menu.

### **Disk drive assignments:**

For Control diskettes the values you enter can be either **1** or **2**.

For Library disks the values you enter can be either **1, 2, 3, or 4**.

### **Notes:**

1. The Control diskette is used when you want to generate Control diskettes or when you want to load selected data types from the Control diskette into working copy.
2. If you select a fixed disk as your library disk, library disk subdirectory LIB00001 is created on the disk the first time you invoke the Central Site Customizing Utility.
3. When you select disk 3 or 4 as the Library disk the first time you will see a noticeable time delay. The name for the Library disk subdirectory is always LIB00001.
4. If you are performing Puts and Gets on a large number of library members you will notice a time delay.
5. If you are using a 3174 that has only one diskette drive and one fixed disk, be aware that the central site library has to reside on the fixed disk. You cannot use Library diskettes with this hardware configuration. However, you can copy existing Library diskettes to the fixed disk. See "How to Copy Files" in the *3174 Utilities Guide*.

### **Control Diskette in Memory**

When set to **Y** for yes, a copy of the Control diskette is put into 3174 memory. The advantage to this is that you do not have to make multiple copies of the master Control diskette. The amount of storage required to support loading the Control diskette into machine storage depends upon the hardware installed in the 3174. See Table 1-1 on page 1-15.

### **For generating labels:**

You identify which labels you want printed when you use either the Generate Labels function or the Generate Diskettes and Labels function. The "Form Feed before each Label" option should be specified as **Y** unless the label printer has the Form Feed after Each Print feature installed.

### **Electronic Distribution Default Version Number**

If your site does not use central site change management, use the default setting on this line, which is **Y** for Yes.

If your site is using central site change management and NetView DM to distribute microcode changes electronically, you will probably have a need to identify some of your library members with unique version numbers. If you are assigning your own version number to a library member, change this line to **N** for no. You will be prompted to type in a version number when you perform the Put or Microcode Upgrade function.

For more information about version numbers, see "Library Member Version Numbers" on page 1-4.

## Central Site Customizing Menu

The Central Site Customizing Menu allows you to select one of the seven Central Site Customizing options.

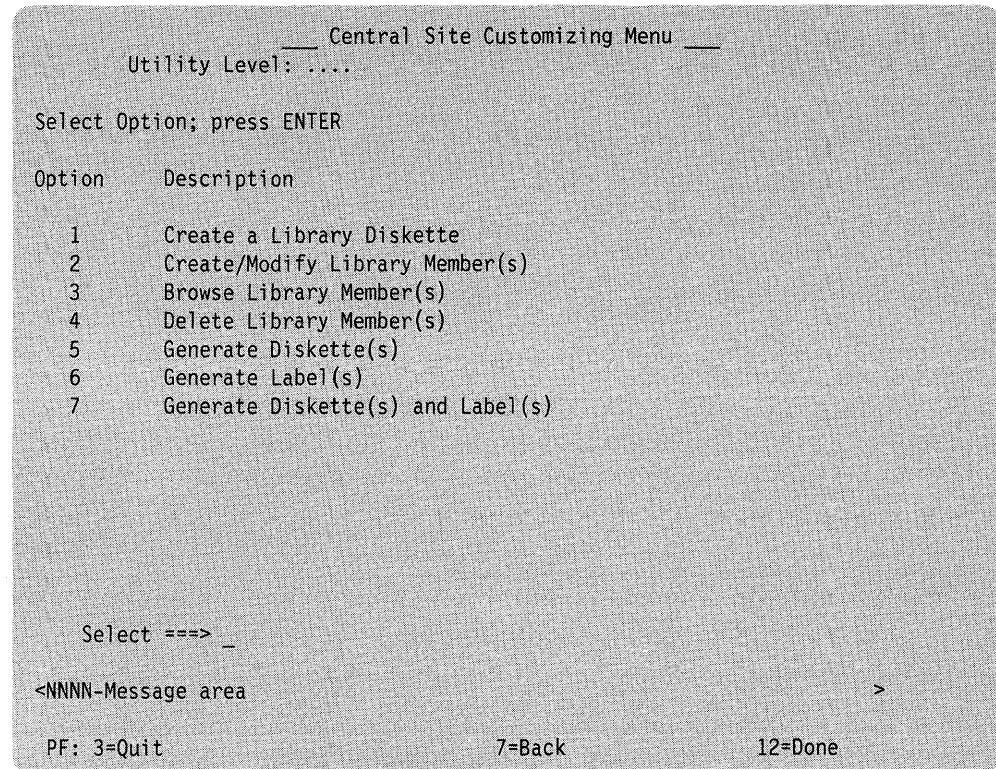


Figure 3-5. Central Site Customizing Menu

### The PF Keys

PF3 (Quit) returns you to the Master Menu without saving the current date, time, and parameter assignments.

PF7 (Back) returns you to the Parameter Assignment panel.

PF12 (Done) can be used after you are finished with central site customizing. It saves the current date and time, and the responses made on the Parameter Assignment panel. It also returns you to the Master Menu.

**Note:** PF5 (Cancel) is displayed only when you are prompted to do something. At this time, the other PF keys, except PF3, are not displayed. You then have the option of following the prompt, canceling it by means of PF5 and staying with the current panel, or quitting by pressing PF3.

## The ENTER Key

The ENTER key validates your response and displays the next panel for the option you selected.

## Panel Processing

To select an option, type the option number after Select ==> and press ENTER. For an overview of the Central Site Customizing panels, see Figure 3-1 on page 3-2. For Library diskettes only, if you select one of Options 2 through 7, the Central Site Customizing Utility checks to see that a Library diskette is present in the proper drive. If one is not present, a message prompts you to insert a Library diskette into a certain drive and press ENTER.

The following briefly describes what happens when you select the options listed on the Central Site Customizing Menu.

### **Option 1 – Create a Library Diskette**

The Create Library Diskette panel is displayed. From this panel, you can name and format a new Library diskette.

This option is not valid if the drive selected for the Library disk is fixed disk 3 or 4. If you want to use this option, return to the *Parameters Assignment* panel and select diskette drive 1 or 2 as the drive containing the Library disk.

### **Option 2 – Create/Modify Library Member(s)**

The Create/Modify Member panel is displayed. From this panel, you select the data that makes up a member, tailor it to accommodate a particular member, and put it to a Library diskette.

### **Option 3 – Browse Library Member(s)**

The Library Members panel, with Browse as the option selected, is displayed. This panel is used to select the library member that you want to browse.

### **Option 4 – Delete Library Member(s)**

The Library Members panel, with Delete as the option selected, is displayed. This panel is used to select the member(s) for deletion.

### **Option 5 – Generate Diskette(s)**

The Library Members panel, with Generate Disks as the option selected, is displayed. This panel is used to select the library member(s) that an output Control diskette will be generated from.

### **Option 6 – Generate Label(s)**

The Library Members panel, with Generate Labels as the option selected, is displayed. This panel is used to select the library members that labels are being printed for.

### **Option 7 – Generate Diskette(s) and Label(s)**

The Library Members panel, with Generate Diskettes and Labels selected, is displayed. This panel is used to select the library member(s) that an output diskette will be generated for and label data printed for.

---

## Create Library Diskette Panel

The Create Library Diskette panel allows you to name and format a new Library diskette. You reached this panel by having selected Option 1, Create a Library Diskette, from the Central Site Customizing Menu.

```
___ Create Library Diskette ___
Utility Level: ....

Input Name; press ENTER

Library Diskette Name    ===> _____

<NNNN-Message area      >

PF: 3=Quit                7=Back
```

Figure 3-6. Create Library Diskette Panel

### The PF Keys

PF3 (Quit) or PF7 (Back) returns you to the Central Site Customizing Menu.

**Note:** PF5 (Cancel) is displayed only when you are prompted to do something. At this time, the other PF keys, except PF3, are not displayed. You then have the option of following the prompt, canceling it by means of PF5 and staying with the current panel, or quitting by pressing PF3.

## Panel Processing

The Library diskette Name field accepts a maximum of 8 alphanumeric characters with no embedded spaces.

Type in the Library diskette name and press ENTER.

A message tells you to insert a diskette. After you have inserted the diskette that you want to be a Library diskette, press ENTER.

If the diskette you inserted is a 3174 diskette, a message is displayed informing you that this 3174 diskette will be overwritten.

If you inserted a wrong diskette, press PF5 (Cancel) and remove the diskette. Otherwise, press ENTER again.

A message is displayed telling you that processing is taking place; a Library diskette is being created.

After 1 minute or so, a message is displayed telling you that processing is completed.

**Note:** If you want to create another Library diskette, follow this procedure again from the beginning. Otherwise, press PF3 (Quit) or PF7 (Back).



## Create/Modify Member Panel

The Create/Modify Member panel allows you to select the functions you will need to create or modify a library member. Functions that you perform using this panel involve dealing with customizing parameters as pieces of information in working copy.

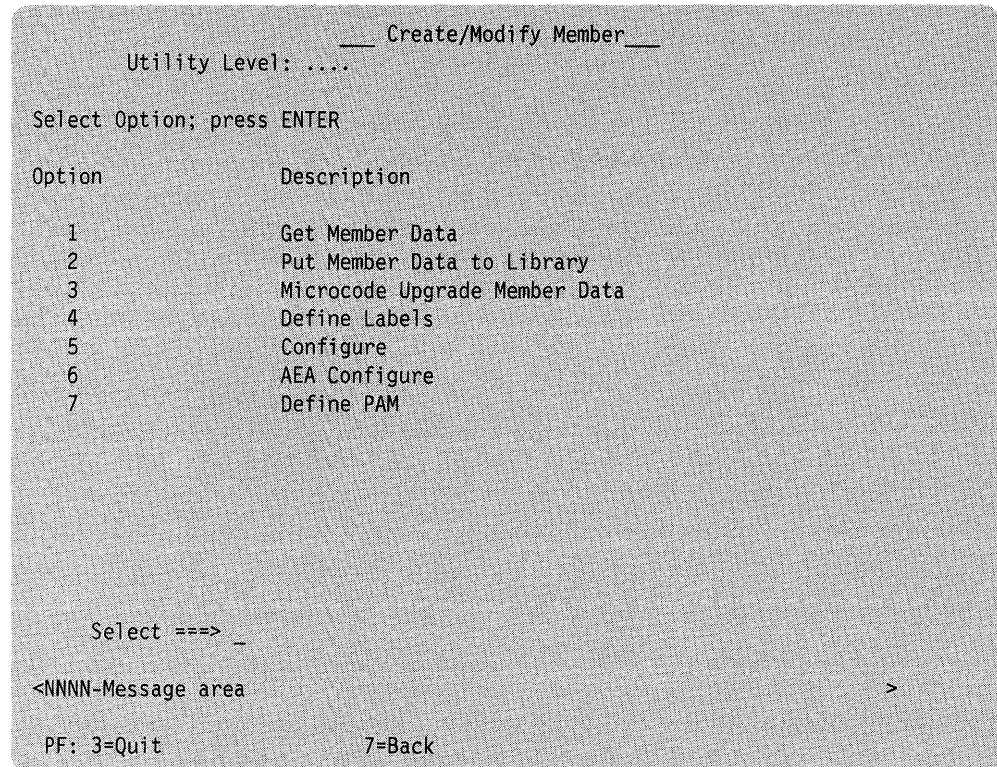


Figure 3-7. Create/Modify Member Panel

### The PF Keys

PF3 (Quit) or PF7 (Back) returns you to the Central Site Customizing Menu.

## Panel Processing

You select an option by typing its number after `Select==>` and pressing ENTER.

The following briefly describes what happens when you select the options listed on the Create/Modify Member panel.

For an overview of the Central Site Customizing panel flow, see Figure 3-1 on page 3-2.

### **Option 1 – Get Member Data**

Displays the Central Site Customizing Get Data panel, from which you can select the type of data you want to load into working copy and where to obtain it.

### **Option 2 – Put Member Data to Library**

Displays the Central Site Customizing Put Data panel, from which you can select the type of data you want to store in a library member from the working copy.

### **Option 3 – Microcode Upgrade Member Data**

Displays the Central Site Customizing Library Members panel with the Microcode Upgrade option selected. With this panel, you can select the library members whose data will be upgraded to the microcode level of the Utility disk.

### **Option 4 – Define Labels**

Displays the Central Site Customizing Label panel, in which you enter the mailing address of the controller that you are creating or modifying a library member for.

### **Option 5 – Configure**

Invokes the Configure procedure. See “How to Customize the Control Disk” in the *3174 Utilities Guide*.

### **Option 6 – AEA Configure**

Invokes the AEA Configure procedure. See “How to Configure the AEA” in the *3174 Utilities Guide*.

### **Option 7 – Define PAM**

Invokes the Define Printer Authorization Matrix (PAM) procedure. See “How to Define the PAM” in the *3174 Utilities Guide*.

**Note:** You use Options 4 through 7 to update the working copy. If you change your mind about one of them while using it, press PF3 to quit the option. The working copy will remain unchanged.

## Get Data Panel

The Get Data panel lets you select the type of data you want and its source. The data you select is placed in the working copy.

With this panel you can create a member in storage from a Library disk, from a Control diskette, or from default data.

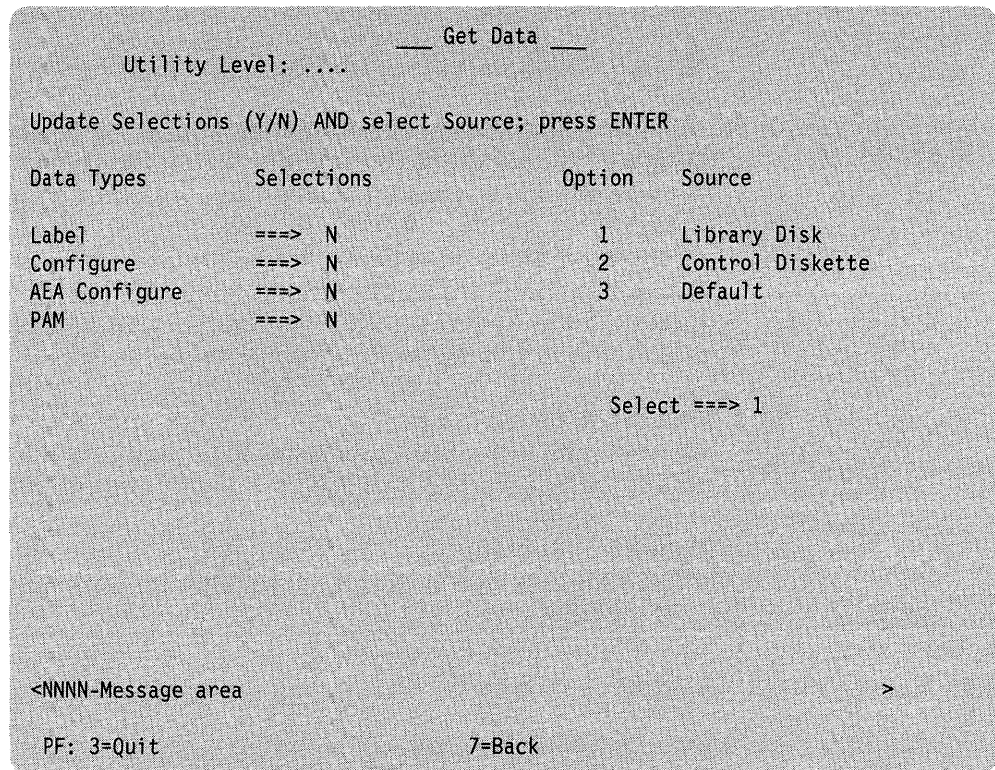


Figure 3-8. Get Data Panel

## The PF Keys

PF3 (Quit) returns you to the Central Site Customizing Menu.

PF7 (Back) returns you to the Create/Modify Member panel.

**Note:** PF5 (Cancel) is displayed only when you are prompted to do something. At this time, the other PF keys, except PF3 (Quit), are not displayed. You then have the option of following the prompt, canceling it by means of PF5 (Cancel) and staying with the current panel, or quitting by pressing PF3.

## The ENTER Key

When you press ENTER, a copy of the data type you selected will be placed into working copy from the source specified by the option number you selected.

## Panel Processing

Initially, this panel is presented as shown. After selections have been made and the panel is invoked again, the previous selections made will be displayed.

You select a data type by replacing the **N** after the desired type with a **Y**. Also, remember to replace a **Y** with an **N** to deselect a data type.

You select a source option by entering **1**, **2**, or **3** after Select ==>.

One of the following options will be performed when you press ENTER:

### **Option 1 – Library Disk**

A check is made to see that a Library diskette is in the controller. If not, a message prompts you to insert a Library diskette into a certain drive and to press ENTER.

If a Library diskette or Library subdirectory is present, the Library Members panel is displayed with Get as the option selected. You use this panel to select the library member that contains the data you want to get into working copy. The data type retrieved will be one or more of the following: Label, Configure, PAM, AEA Configure.

**Note:** If you get data from a library member that is at a lower microcode level than the Utility disk, an automatic microcode upgrade occurs, and you will not be able to put the data back to the same member.

### **Option 2 – Control Diskette.**

A message prompts you to insert a Control diskette into a certain drive and to press ENTER.

After ENTER is pressed, the microcode levels of the Control and Utility disks are compared. If the Control diskette is at a lower microcode level than the Utility disk, a microcode upgrade is performed automatically and a message informs you that the working copy is being upgraded to the level of the Utility disk. The data type is retrieved from the diskette and stored in the working copy. The data type retrieved will be one or more of the following: Label, Configure, PAM, AEA Configure.

If Label is selected, the address label in working copy defaults to blanks.

### **Option 3 – Default.**

Default panel responses that are associated with the data type selected are stored in the working copy. A message informs you when this is completed.

When many changes are necessary to meet the requirements of a particular controller, it may be easier to modify a panel from all defaults than to modify one from former responses.

---

## Put Data Panel

The Put Data panel lets you select the types of data from the working copy that you want to put into library member(s).

Be careful to put only applicable data types to each library member, to conserve disk space.

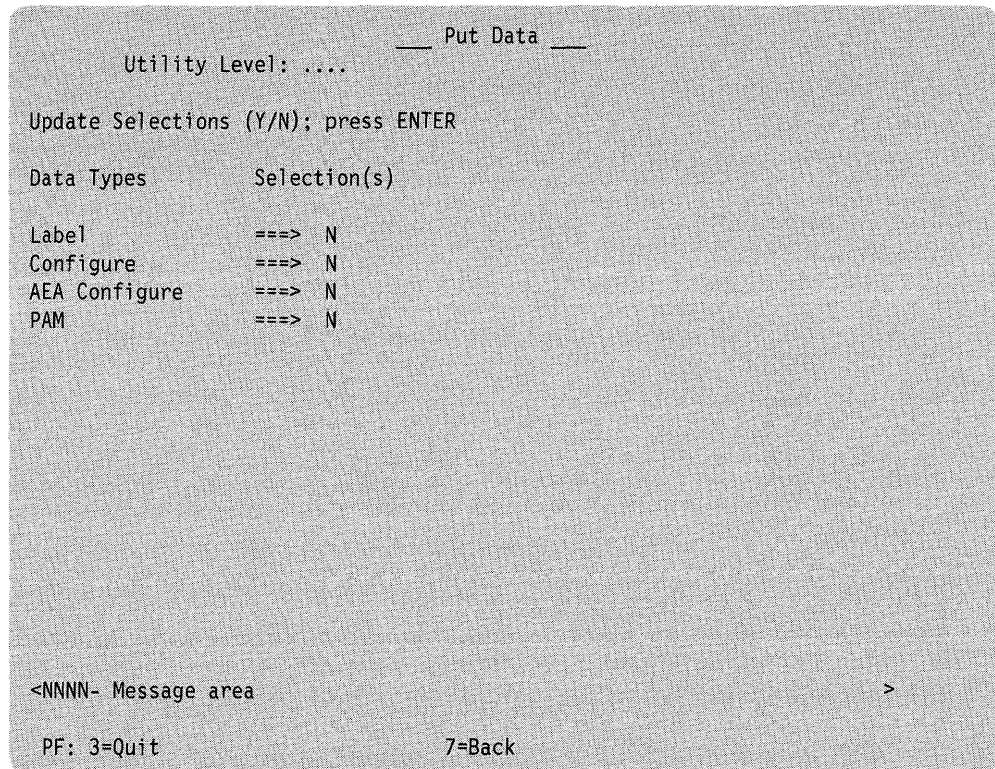


Figure 3-9. Put Data Panel

### The PF Keys

PF3 (Quit) returns you to the Central Site Customizing Menu.

PF7 (Back) returns you to the Create/Modify panel.

### The ENTER Key

When you press ENTER, if you selected at least one data type, the Library Members panel is displayed with Put as the option selected. You use this panel to define the library member(s) that you want to Put the data to, from the working copy.

## Panel Processing

Initially, this panel appears as shown. After selections have been made and the panel is invoked again, your selections will be displayed.

You select a data type by replacing the **N** after the desired type with a **Y**. Also, remember to replace a **Y** with an **N** to deselect a data type.

If you are using central site change management, “canonical” names are assigned to your library members. The canonical name identifies the microcode data to NetView DM when you use NetView DM to retrieve or distribute microcode in your network. Canonical names are assigned to the microcode data types when the data types are placed into your library by using the Put Data panel. The canonical names are built from the library member name, the data type and the answers to specific customizing questions such as 501 and 502.

To assign a canonical name, a different data type along with the configure data type must be put into the library member.

If you specified **N** for default version numbers on the Parameter Assignments panel you will be prompted to enter a version number. The version number is 1 to 6 characters in length. You can use alphanumeric characters A to Z and 0 to 9.

## Library Members Panel

The Library Members panel shows all the library members that are contained on the Library diskette or Library subdirectory being accessed. The following panel is representative of eight different Library Members panels that you may use, depending on the customizing option you select. The name of the option you have selected will appear in the upper left corner of the panel. The eight options are Browse, Generate Disks, Generate Labels, Generate Disks and Labels, Delete, Get, Put, and Microcode Upgrade.

```

                ___ Library Members ___
Utility Level: ....      Library Disk: DISTRIC1
Option:                Disk Space Used: ___%
Member Number:  21 of  65

  Name      Date      Time      Level
- B970N02  1/10/86   9:15 A   A4.1
- B970N02  12/15/85   2:33 P   A3.2
- B970N01  12/15/85   2:35 P   A3.2
- B970N04  1/03/86    9:28 A   A4.1
- B970N05  1/03/86    9:31 A   A4.1
- B970N06  1/10/86    9:32 A   A4.1
- B970N07  1/22/86    3:15 P   A4.1
- B970N08  1/22/86    3:18 P   A4.1
- B970N09  1/22/86    3:22 P   A4.1
- B970N10  1/22/86    3:25 P   A4.1
- B971N01  12/30/85   1:33 P   A3.2
- B971N02  12/30/85   1:35 P   A3.2

====> _____
<NNNN-Message area                                     >

PF: 2=Keys 3=Quit 7=Back 9=LIBDsk 10=PageBack 11=PageFwd
```

Figure 3-10. Library Members Panel

### The PF Keys

There are two sets of PF key assignments for the Library Members panel: the Base PF keys and the Alternate PF keys. They can be switched back and forth with the PF2 key.

## Base PF Keys

PF2 (Keys) allows you to toggle between two rows of PF keys: the base PF keys shown at the bottom of the panel and the alternate PF keys shown here.

PF3 (Quit) returns you to the Central Site Customizing Menu.

PF5 (Cancel) is displayed only when you are prompted to do something. At this time, the other PF keys, except PF3, are not displayed. You then have the option of following the prompt, canceling it by means of PF5 and staying with the current panel, or quitting by pressing PF3.

PF7 (Back) returns you to the previous panel.

PF9 (LIBDisk) allows you to insert a different Library diskette. You will be given an insert message. After you have inserted the new diskette, a new library member list is displayed.

### Notes:

1. This is the only time you can change Library diskettes while you are using the Central Site Customizing Utility.
2. If the Library disk drive selected is a fixed disk, PF9 is not displayed as one of the active PF keys.

PF10 (PageBack) allows you to page backward through the library members list.

PF11 (PageFwd) allows you to page forward through the library members list.

## Alternate PF Keys

The following keys become available to you when you press PF2.

PF2 (Keys) allows you to toggle between the two rows of PF keys.

PF4 (Locate) finds the member name or member number that you have entered on the command line and displays it as the first member on the screen. For example:

If you type **B970**

It locates the first member whose name starts with B970.

If you type **35**

It locates the 35th member.

PF5 (Sort Date) sorts the library members according to date, most recent to oldest, and displays the new list.

PF6 (Sort Name) sorts the library members according to name, in alphabetic order, and displays the new list.

PF7 (Sort Level) sorts the library members according to microcode levels, highest to lowest, and displays the new list.



## The ENTER Key

The ENTER key initiates or continues the option selected.

## Panel Processing

Before some of the Central Site Customizing options are performed, the microcode levels of the Central Site Customizing Utility and of the selected library member must be compared. The microcode levels consist of the Configuration, Release, and Suffix levels. The Maintenance level is not of concern here. For some options, the microcode levels match. For other options, the microcode levels do not have to match. The following table shows which options require matching microcode levels and which do not.

Options	Microcode Levels
Browse, Get, Microcode Upgrade, Generate Labels, Delete	The microcode level of the library member can be less than or equal to the microcode level of the Utility disk.
Generate Disks, Put, Gen Disks and Labels	The microcode level of the library member and the microcode level of the Utility disk must match.

**Note:** If an incorrect microcode level is used, you will receive an error message.

## Marking Members to Be Processed

**Note:** Some options must be processed as single-member functions; others can be processed as multimember functions.

## Input Fields

The input fields immediately precede each member name in the library members list. You can place an **X** in the input field for each member you want to process. You may need to page through the members list using PF11 (PageFwd) and PF10 (PageBack). Mark those members you wish to include under the selected option, and press ENTER. The option you selected will be performed on each of the members you have marked with an **X**.

When the option has been performed, an asterisk replaces the **X** in front of each member that you had marked for processing. In the case of the Delete option, however, the members deleted will be eliminated from the list. If processing of the option is interrupted, an **X** remains in front of each member that has not been processed.

## Command Line

If you do not want to search for a particular member, you can type a member name on the command line and press ENTER. The word **ALL** can be entered on the command line when you want to apply an option to all library members. For the Browse option, the letters **WC** can be entered on the command line when you want to examine the working copy.

**Note:** When you are using the Put Option for new library members, type the new member name on the command line and press ENTER to put the member into the library.

## **A Description of the Eight Options**

### **Browse option**

Use the Browse option to view the contents of a library member or of the working copy. You select the member by means of the Library Members panel, with the Browse option selected. With the selection made, you go to the Browse Library Member panel, where you select the data type(s) associated with the selected member that you want to browse.

### **Generate Disks option**

Use the Generate Disks option to select the library member(s) that you want Control diskette(s) generated from. You then go to the Generate Diskettes panel, where you are prompted to insert diskettes and initiate copying.

### **Generate Labels option**

Use the Generate Labels option to select the library member(s) whose label data you want printed. You then go to the Generate Labels panel, where you are prompted to insert diskettes and initiate label printing.

### **Generate Disks and Labels option**

Use the Generate Disks & Labels option to select the library member(s) that you want Control diskette(s) generated from and label data printed for. You then go to the Generate Diskettes and Labels panel, where you are prompted to insert diskettes and initiate copying and label printing.

### **Delete option**

Use the Delete option to select library member(s) that you want to delete from the central site library.

### **Get option**

Use the Get option to select a library member that you want to get data from.

### **Put option**

Use the Put option to select the library member(s) that you want to put data to.

### **Microcode Upgrade option**

Use the Microcode Upgrade option to select the library member(s) whose data you want upgraded to the level of the current Utility diskette.

## Browse Library Member Panel

You can reach the Browse Library Member panel only by way of the Library Members panel (Browse Option). This panel is used to obtain a detailed table of contents for a particular library member. You may then browse the contents of any data type that is part of that member. You cannot modify the data while browsing it.

For central site customizing without central site change management, the panel shown in Figure 3-11 is displayed.

For central site customizing with central site change management (CSCM), the panel shown in Figure 3-12 on page 3-23 is displayed.

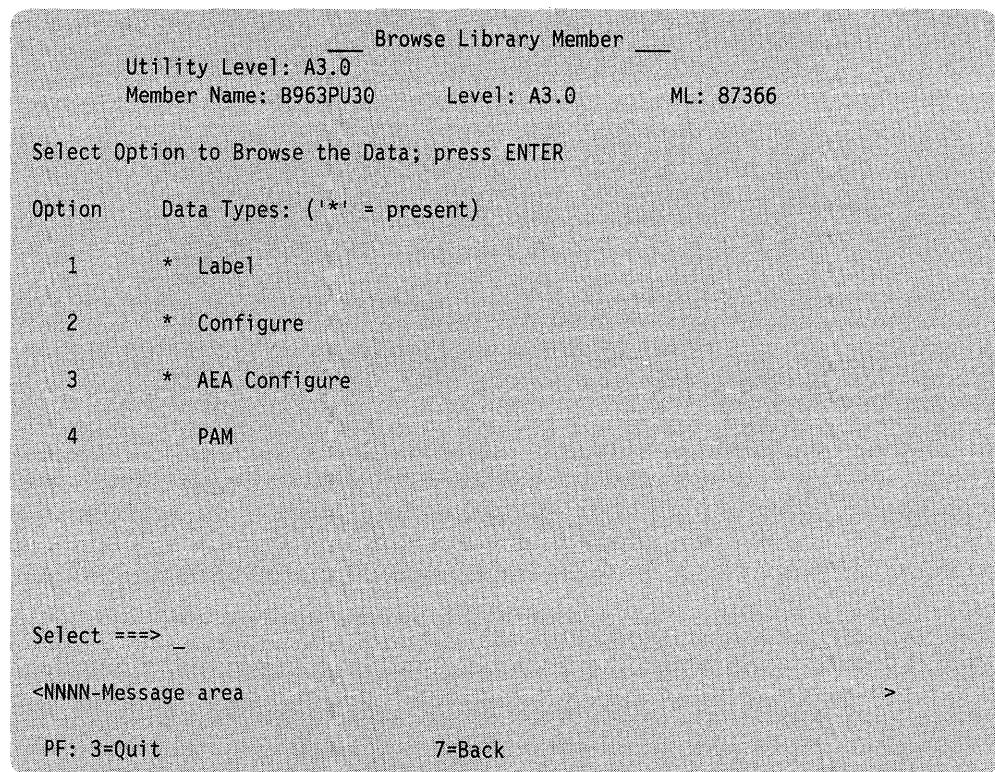


Figure 3-11. Browse Library Member Panel

```

          Browse Library Member
Utility Level: A4.0
Member Name: B963PU30      Level: A5.0      ML: 88366

Select Option to Browse the Data; press ENTER

Option      Data Types: ('*' = present)

  1      * Label
  2      * Configure
          MCUST.3174.NA.NETWEST1.B963LU30.CFG.B963PU30.2
  3      * AEA Configure
          MCUST.3174.NA.NETWEST1.B963LU30.AEA.B963PU30.2
  4      * PAM
          MCUST.3174.NA.NETWEST1.B963LU30.PAM.B963PU30.2

Select ==>
<NNNN-Message area
PF: 3=Quit          7=Back

```

Figure 3-12. Browse Library Member Panel (CSCM)

### The PF Keys

PF3 (Quit) returns you to the Central Site Customizing Menu.

PF7 (Back) returns you to the central site customizing Library Members panel.

### The ENTER Key

The ENTER key validates your responses and displays the panels for the option you selected.

## Panel Processing

Level (top of panel) is the microcode level of the library member being browsed.

ML (top of panel) is the Maintenance level of the library member being browsed. This area of the panel is blank when you browse the working copy.

The asterisks under Data Types (near top of panel) indicate which data types are present in the library member.

You select an option by typing its number after Select====> and pressing ENTER.

The following briefly describes what happens when you select the options (data types) on the Member Contents panel:

### **Option 1 – Label**

Displays the Central Site Customizing Label panel.

### **Option 2 – Configure**

Displays the Configure procedure panels. See “How to Customize the Control Disk” in the *3174 Utilities Guide* for more information.

The canonical name for the library member is displayed under Option 2 in Figure 3-12 on page 3-23.

For further information, see Chapter 6, “Canonical Name Description.”

### **Option 3 – AEA Configure**

Displays the AEA Configure procedure panels. See the *3174 Utilities Guide* for more information. The canonical name for the library member is displayed under Option 3 in Figure 3-12 on page 3-23. For further information, see Chapter 6, “Canonical Name Description.”

### **Option 4 – PAM**

Displays the Define Printer Authorization Matrix (PAM) procedure panels. See “How to Define the PAM” in the *3174 Utilities Guide*.

The canonical name for the library member is displayed under Option 4 in Figure 3-12 on page 3-23. For further information, see Chapter 6, “Canonical Name Description.” When you browse any of the above options, the name of the panel appears at the top, centered. In addition, the word Browse appears in the upper left corner, and the library member name or WC (working copy) appears in the upper right corner.

While you browse the panels of a data type, the following PF keys are active:

- PF3 (Quit) returns you to the Browse Library Member panel.
- PF7 (Back) lets you go to the previous panel.
- PF8 (Fwd) lets you go to the next panel.

## Label Definition Panel

On the Label Definition panel, you can enter the mailing address of a controller; you can enter one line of information under "Diskette Label" to be associated with the controller, and you can enter two lines of notes. This information is used for printing address mailing labels and diskette labels, as well as for record-keeping.

```
Utility Level: ....  Label Definition
Create/Modify Labels and Notes; press ENTER
Address Label:
Diskette Label:
  NAME: ..... 3174 CONTROL
MACHINE 3174 P/N 66X2482 E/C A48068 ML86079 MICROCODE LVL A4.1
3174 MICROCODE (C) COPYRIGHT IBM CORP 1987 0033
NOTES:
<NNNN-Message area >
PF: 3=Quit 4=Default 7=Back 12=Done
```

Figure 3-13. Label Definition Panel

### The PF Keys

PF3 (Quit) returns you to the Central Site Customizing Menu without updating the working copy.

PF4 (Default) blanks out the panel input areas and clears the message line.

PF7 (Back) returns you to the central site customizing Create/Modify panel without updating the working copy.

PF12 (Done) updates the working copy and returns you to the Create/Modify Member panel.

## Panel Processing

The address label area (upper part of panel) can occupy up to six lines, of 68 characters each. Below is an address label example:

```
INTERNATIONAL BUSINESS MACHINES CORPORATION  
DEPARTMENT 52Q  
NEIGHBORHOOD ROAD  
KINGSTON NEW YORK 12401
```

The diskette label area (middle of panel) is the information contained on the label of the library member's Control diskette. The member name on the diskette label is not contained in the working copy. The name is filled in, however, by the Central Site Customizing Utility when the label data is put to a member. The diskette label data cannot be modified except for the fourth line. You can enter up to 68 characters of information on the fourth line.

The Notes area (near bottom of panel) consists of two lines, each 68 characters long. Notes pertaining to a particular library member may be entered here to remind you of things you must do when generating diskettes, such as NEEDS A DOWNSTREAM LOAD DISKETTE. These notes are not printed on the diskette label.

The character set that you use to type in information on the Label Definition Panel consists of the following:

- Uppercase alphabetic characters (A – Z)
- Numeric characters (0 – 9)
- Space or null.

---

## Generate Diskettes Panel

The Generate Diskettes panel tells you which member name that an output diskette is being generated for. On the basis of the data you entered on the Library Members panel, you use this panel to initiate the inserting of diskettes and the copying of customizing parameters to the Control diskette you are generating.

```

                                ___ Generate Diskettes ___
Utility Level: ....
Member Name: .....
Address Label:
Diskette Label:
NAME: ..... 3174 CONTROL
MACHINE 3174 P/N 66X2482 E/C A48068 ML86079 MICROCODE LVL A4.1
3174 MICROCODE (C) COPYRIGHT IBM CORP 1987 0033
NOTES:

Press PF key to process

PF: 3=Quit      7=Back      9=CTLDsk 10=FullGen 12=Gen
```

Figure 3-14. Generate Diskettes Panel

### The PF Keys

PF3 (Quit) returns you to the Central Site Customizing Menu.

PF7 (Back) returns you to the Library Members panel.

**Note:** PF9 and PF10 are displayed on the Central Site Customizing Generate Diskette panel only if your 3174 contains the 1.0MB Storage Expansion feature.

PF9 (CTLDsk) is used to load the master Control diskette into main storage. This must be done prior to using PF10 (FullGen) to generate a Control diskette.

PF10 (FullGen) is used to generate a Control diskette. FullGen lets you copy an entire master Control diskette image, contained in storage, and the customizing data belonging to a particular member, onto the output diskette.



PF12 (Gen) lets you put just the customizing data, belonging to a particular library member, onto an output Control diskette you have created by means of the Copy procedure. See "How to Copy Files" in the *3174 Utilities Guide*.

**Notes:**

1. When you leave the Generate function to perform a different central site customizing function, you will have to reload your Control diskette into 3174 memory.
2. PF5 (Cancel) is displayed only when you are prompted to do something. At this time, the other PF keys, except PF3, are not displayed. You then have the option of following the prompt, canceling it by means of PF5 and staying with the current panel, or quitting by pressing PF3.

## **Panel Processing**

You cannot enter any data on this panel.

The information under "Diskette Label" is filled in by the Central Site Customizing Utility after a Control diskette is generated. The diskette label information is saved in the library member for your reference. The information shown in the Generate Diskettes panel is an example.

Press PF10 or PF12 each time a member is to be generated, until all members that were selected on the Library Members panel are completed. You will see a message indicating that all members have been generated. Press PF3 or PF7 to leave this panel.

**Note:** Do not use a write-protect tab on the Library diskette.

## Generate Labels Panel

The Generate Labels panel tells you the library member name for which labels are being printed. You use this panel to initiate the printing of label data for those library members you selected on the Library Members panel.

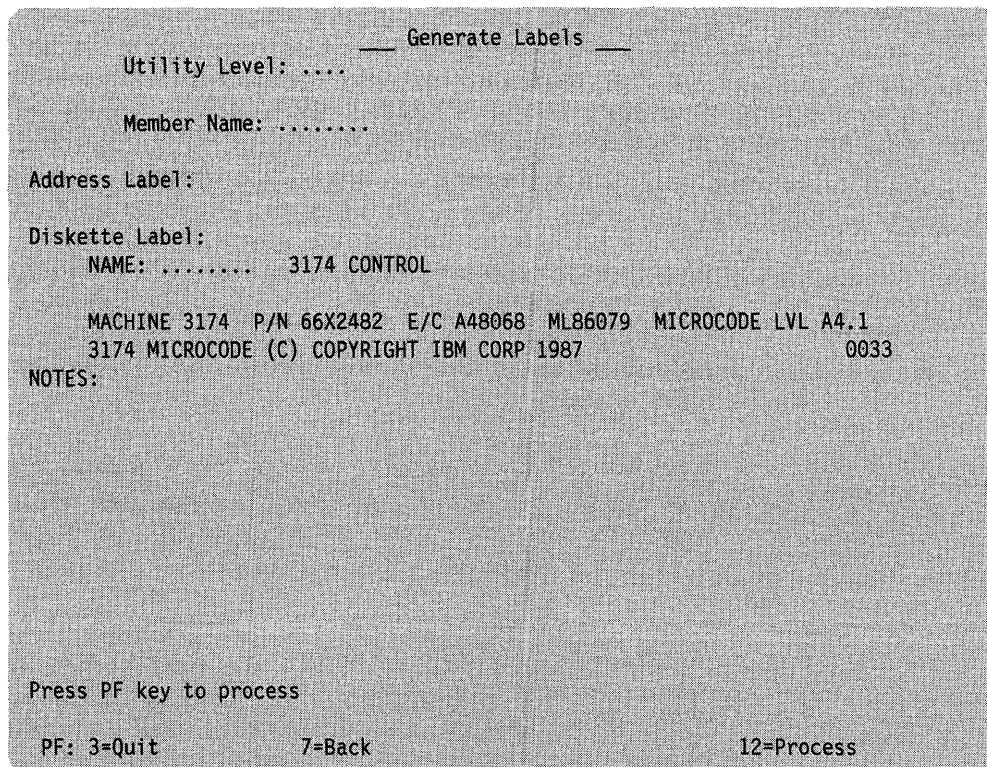


Figure 3-15. Generate Labels Panel

### The PF Keys

PF3 (Quit) returns you to the Central Site Customizing Menu.

PF6 (Abort) is displayed only during printing. You use PF6 to terminate printing after the current label. You may resume label printing by pressing PF12. Printing starts again with the label(s) for the member currently displayed on the screen.

PF7 (Back) returns you to the Library Members panel.

PF12 (Process) starts label printing for the label types that were identified on the Parameter Assignment panel.

**Note:** PF5 (Cancel) is displayed only when you are prompted to do something. At this time, the other PF keys, except PF3, are not displayed. You then have the option of following the prompt, canceling it by means of PF5 and staying with the current panel, or quitting by pressing PF3.

## Panel Processing

You cannot enter any data on this panel.

The address label information is not filled in unless you selected the Print Address Labels option on the Parameter Assignment panel. The information under Diskette Label is filled in by the Central Site Customizing Utility only if you selected the Print Diskette Labels option on the Parameter Assignment panel.

The Diskette Label information does not appear in the panel until you press PF12 and insert the Control diskette. The diskette label information is obtained from this Control diskette. This diskette must be at the same Maintenance level and micro-code level as the diskette the label is for. An example of diskette label information is shown in the Generate Labels panel on the previous page.

The labels for the members displayed are printed on the same printer used for local copy. If necessary, see "Local Copy" in the *3174 Utilities Guide*. After the labels for one member are printed, if more members are selected, the label information for the next member is displayed and its labels are printed. A message appears indicating that all members have been processed. Press PF3 or PF7 to leave this panel.

If you are getting a blank label between printed labels, an extra form feed is occurring. Either change your response to Form feed before each Label to an **N**, on the Parameter Assignment panel, or change your printer features so that a form feed does not occur after each label is printed.

## Printer Errors

If an error occurs during label printing, an error message is displayed on the message line. After correcting the error, you can restart label-printing by pressing PF12. You may have to press the DEVICE CANCEL key first. Printing starts again with the label(s) for the member currently displayed on the screen. For more information concerning error messages, see *3174 Status Codes*, GA27-3832.

## Generate Diskettes and Labels Panel

The Generate Diskettes and Labels panel tells you the member name that a customized diskette is being generated from and that labels are being printed for. On the basis of the members you selected on the Library Members panel, you use this panel to initiate the inserting of diskettes, the copying of customizing parameters to the Control diskette, and the printing of label data.

```

      _____ Generate Diskettes and Labels _____
      Utility Level: ....
      Member Name: .....
      Address Label:
      Diskette Label:
      NAME: ..... 3174 CONTROL
      MACHINE 3174 P/N 66X2482 E/C A48068 ML86079 MICROCODE LVL A4.1
      3174 MICROCODE (C) COPYRIGHT IBM CORP 1987 0033
      NOTES:
      Press PF key to process
      PF: 3=Quit      7=Back      9=CTLDsk 10=FullGen 12=Gen

```

Figure 3-16. Generate Diskettes and Labels Panel

### The PF Keys

PF3 (Quit) returns you to the Central Site Customizing Menu.

PF7 (Back) returns you to the Library Members panel.

**Note:** PF9 and PF10 are displayed on the Generate Diskettes and Labels panel only if your 3174 contains the 1.0MB Storage Expansion feature.

PF9 (CTLDsk) is used to load the master Control diskette into main storage. This must be done prior to using PF10 (FullGen) to generate a Control diskette.

PF10 (FullGen) is used to generate a Control diskette. FullGen lets you copy an entire master Control diskette image contained in storage and the customizing data belonging to a particular member, onto the output diskette. When copying is completed, the diskette label data for the new Control diskette is displayed and the label types requested are printed.

PF12 (Gen) lets you write just the customizing data, belonging to a particular library member, onto an output Control diskette that you have created by means of the Copy procedure. See "How to Copy Files" in the *3174 Utilities Guide*. When writing is completed, the diskette label data for the new Control diskette is displayed and the label types requested are printed.

**Note:** PF5 (Cancel) is displayed only when you are prompted to do something. At this time, the other PF keys, except PF3, are not displayed. You then have the option of following the prompt, canceling it by means of PF5 and staying with the current panel, or quitting by pressing PF3.

## Panel Processing

You cannot enter any data on this panel.

The information under "Diskette Label" is filled in by the Central Site Customizing Utility after a Control diskette is generated. The diskette label information is saved in the library member for your reference. The information shown in the Generate Diskettes and Labels panel is an example.

Press PF10 or PF12 each time a member is to be generated and labels are to be printed, until all members that were selected on the Library Members panel are completed. After each new output Control diskette is generated, the diskette label data for the new diskette is displayed and the label types requested are printed. You will see a message indicating that all members have been processed. Press PF3 or PF7 to leave this panel.

If you are getting a blank label between printed labels, an extra form feed is occurring. Either change your response to Form feed before each Label to an **N** on the Parameter Assignment panel, or change your printer features so that a form feed does not occur after each label is printed.

**Note:** Do not use a write-protect tab on the Library diskette.

## Printer Errors

If an error occurs during label printing, an error message is displayed on the message line. After correcting the error, you can restart label printing by pressing PF10 or PF12. You may have to press the DEVICE CANCEL key first. Printing starts again with the label(s) for the member currently displayed on the screen. For more information concerning error messages, see *3174 Status Codes*, GA27-3832.

---

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MCODE.3174.NA.FEATURE.mclvl.RPQ.rpqnumbr	6-9
MCODE.3174.NA.PATCH.patchno (PC ZC)	6-9
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MCUST.3174.NA.netwname.luname.PAM.librname.vernum	6-11
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## Chapter 4. Introduction to Central Site Change Management

Central site change management (CSCM) in conjunction with NetView DM provides the facility to electronically distribute 3174 microcode and customizing data to all of the 3174s in an SNA network. CSCM is provided only on SNA networks. The SNA protocols used to carry the data through the network include LU Type 6.2, SNA Distribution Services (SNA/DS), SNA Management Services (SNA/MS), and SNA File Services (SNA/FS).

CSCM uses a central point to manage the microcode levels of all the 3174s in the network. The central point is NetView DM, which is an application program running on ACF/VTAM in an S/370 processor. NetView DM works in combination with the 3174 that contains the central site library. Electronic distribution of the 3174 microcode and customizing data is initiated and controlled from NetView DM. Microcode changes are retrieved from the central site 3174, stored in the NetView DM resource repository, and then distributed from the resource repository to the appropriate network site 3174 by NetView DM. NetView DM can also retrieve data from the network site 3174s.

CSCM is enabled on your controllers by responding appropriately to questions 500, 501, and 502 during customization.

---

### Setup Requirements for Central Site Change Management

Setup requirements for CSCM are broken into the following three major areas:

- Hardware
- Microcode
- Software.

#### CSCM Hardware Requirements

Central site change management requires the following at the central site 3174.

- The 3174 must be online when using NetView DM for distributing and retrieving microcode changes.
- The 3174 controller must have at least two diskette drives, or one diskette drive and one fixed disk.

#### Recommendations:

A fixed disk is best for storing your central site library data because of the greater storage capacity.

Two diskette drives are recommended even if you do have a fixed disk.

#### CSCM Microcode Requirements

Microcode release A4.0/S4.0 is the minimum release level required both on the central site library controller and on the network site controllers.



**Notes:**

1. A 3174 with the IBM Token-Ring Network Gateway feature installed cannot be configured to support CSCM as the central site controller. It can only be configured to support CSCM as a network site 3174.
2. Configuration support S library members can be stored in the central site library; they can be distributed by NetView DM to the network site controllers.
3. Always use the highest available functional level of microcode when you IML the controller to connect to the host. For example, use A5.0 or higher. A5.0 is downward compatible with previous microcode release levels, such as A4.0 and S4.0.

**Host Software Overview**

NetView DM Version 1, Release 2 or higher is supported in an MVS or VM operating environment. For details see *NetView Distribution Manager Planning*, SH19-6589, and *NetView Distribution Manager Installation*, SH19-6590.

**VTAM**

The program product number for NetView DM is 5685-016.

3174 Microcode Release A4.0 requires ACF/VTAM, Version 3, Release 2 (APPC), which supports LU6.2 protocols. 3174 Change Management is supported with LU6.2 sessions to NetView DM.

The Interactive System Productivity Facility (ISPF) with the Program Development Facility (PDF) is needed to access the Primary Option Menu from the Generalized Interactive Executive (GIX).

---

## CSCM Terminology

This section describes some of the terminology associated with CSCM.

*Term*      *Description*

### **Central Site 3174**

This is the 3174 designated to store the library members that contain the customization data for the other 3174s in your network. This 3174 is configured to support central site change management as the central site 3174. In most cases, this controller is located at your host site.

### **Network Site 3174**

Network Site 3174s are configured to support central site change management. A network site 3174 stores only its own microcode and customization data.

### **Data objects**

A data object can be either 3174 microcode or 3174 customization data.

### **Microcode**

The microinstructions that make up the Control, Utility, RPQ, or Downstream Load disks for the 3174.

### **Customization data**

The data that defines the characteristics of a 3174, such as the configure data, printer authorization matrix data, AEA configure data, KDU data, and RPQ merge data.

**Canonical name** A name used by CSCM and NetView DM to identify 3174 data objects. This name is created according to Change Management Architecture rules.

### **NetView DM functions**

The commands used in a NetView DM transmission plan to control the distribution of 3174 data objects in the network. These functions define the operation to be performed, which 3174 will perform the operation, and for some functions, which data object will be processed.

### **Transmission plan**

A set of NetView DM functions that control the distribution of 3174 data objects in your network.

### **NetView DM Resource Repository**

A storage facility used by NetView DM.

---

## NetView Distribution Manager

NetView DM, Version 1, Release 2 or higher, is a licensed program product that helps you manage and control the distribution of software, microcode and data in a data processing network.

Distributing data to and retrieving data from the 3174s in your network is accomplished by building NetView DM transmission plans. Transmission plans are made up of phases, each of which is built with functions. The 3174 processes the following subset of NetView DM functions:

- Accept Microcode
- Activate Node
- Delete Microcode
- Install Microcode
- Remove Microcode
- Retrieve Microcode
- Send Microcode.

For details about using these functions, see Chapter 7.

Other NetView DM facilities you will have to use are:

- BATCH Utilities
- Define nodes and groups
- Manage resources in the NetView DM Repository
- Prepare and submit transmission plans
- Maintain NetView DM system files
- Generalized Interactive Executive (GIX)
- Transmission Control Program (TCP)
- Interactive Operator Facility (IOF).

Other NetView DM functions used with CSCM are:

- Define|Delete Node
- Define|Delete User
- Define|Delete Group
- Define|Delete (Plan, Phase, Function)
- Browse|Print|Erase Plan
- Print|Delete History.

For detailed information about NetView DM utilities and functions, see the following NetView DM publications:

- *IBM NetView Distribution Manager:*
  - General Information*, GH19-6587
  - Planning*, SH19-6589
  - Installation*, SH19-6590
  - User's Guide*, SH19-6602
  - Operation*, SH19-6592
  - Messages and Codes*, SH19-6595
  - Diagnosis*, LY19-6293.

See the Preface for a list of Systems Network Architecture publications available June 30, 1989.

---

## The NetView DM Resource Repository

CSCM uses two data bases.

1. The diskettes, directories on the fixed disks, and the central site library in the central site 3174
2. NetView DM resource repository.

Managing updates to data objects requires having the latest level of the data for each network site 3174 stored at the central site 3174. Data objects cannot be sent from the NetView DM resource repository to the Library diskette or library subdirectory on a fixed disk in the central site 3174. However, data objects can be sent to any installed Control, Utility, RPQ, or DSL diskettes or fixed disks.

Maintaining multiple versions of the customizing data for a particular network site 3174 is accomplished by storing the different versions in the NetView DM resource repository. The versions are uniquely identified with a version number that is assigned to the customizing data through the CSC utility. NetView DM transmits changes to target nodes only from its repository so you can direct NetView DM to retrieve and distribute these different levels by specifying the version number in the canonical name. In the central site library only one level of customizing data can be stored in a library member. You would have to create a second library member with a different name for the same controller to store a different level of customizing data. Old levels of microcode and customization data should be kept in the repository.

---

## What Are NetView DM Transmission Plans?

NetView DM transmission plans are used to control data object distribution. The functions in a transmission plan contain the details of naming the source or destination of data objects and the names of the data objects. A transmission plan has three levels of specification.

1. Plan – collection of phases for validation and tracking.
2. Phase – collects functions by node or group of nodes.
3. Function – specifies transmission activities to a node or group of nodes.

When you want to distribute or retrieve 3174 data objects in your network, a transmission plan is what you use to tell NetView DM what to do. As plans are executed, NetView DM collects completion data, and then logs the status of plan completion by function. Analysis of the listing of function records or statistical records provides the status and history of network change activity. For detailed information see *IBM NetView Distribution Manager User's Guide*, SH19-6602.

## How NetView DM and CSCM Distribute Data Objects

Figure 4-1 shows a simplified diagram of data flow through your network when you execute a NetView DM transmission plan to retrieve a microcode data object from the central site 3174.

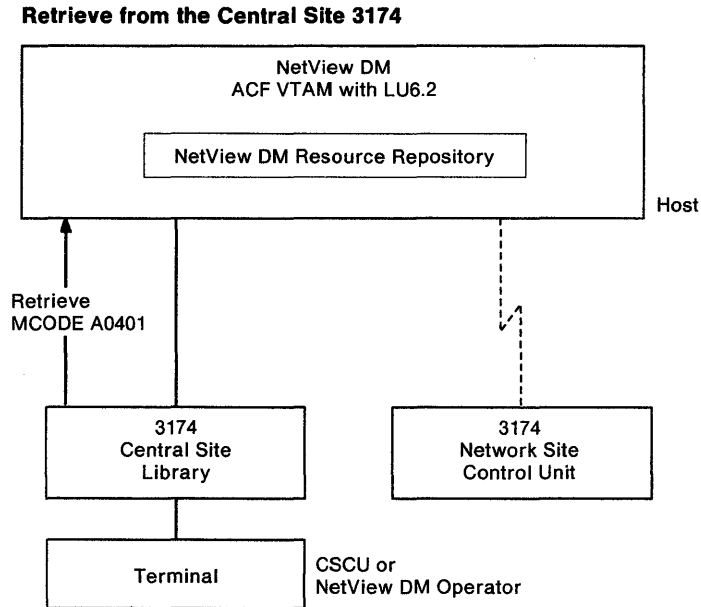


Figure 4-1. Data Flow 1

Figure 4-2 shows a simplified diagram of data flow through your network when you execute a NetView DM transmission plan to install the data object you just retrieved in a network site 3174.

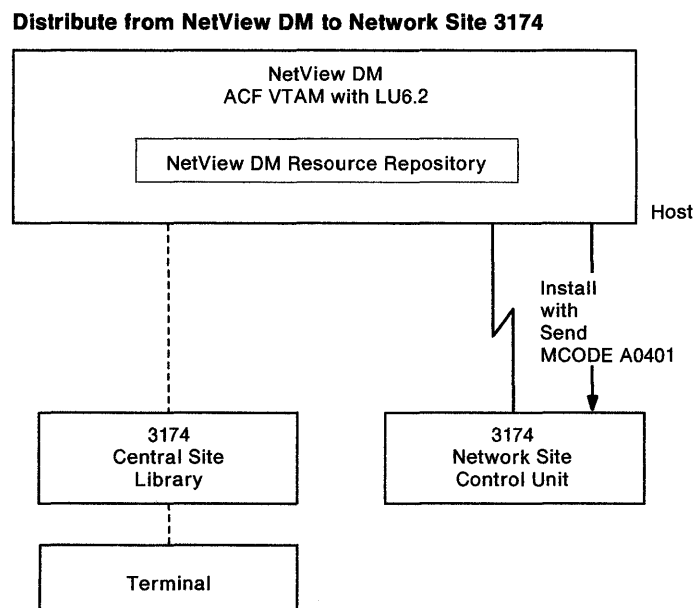


Figure 4-2. Data Flow 2

## DISTRIBUTION SCENARIO

After changing the customization data or preparing a microcode EC for distribution at the central site 3174, the central site planner will create or modify the NetView DM transmission plans necessary to RETRIEVE, SEND, and INSTALL the required data objects. The transmission plan is then submitted to NetView DM. The RETRIEVE function in this case is from the central site 3174 and the INSTALL with SEND function is to one or more network site 3174s.

1. A transmission plan is submitted to NetView DM.
2. An LU6.2 session is established between the central site 3174 and NetView DM.
3. NetView DM sends a RETRIEVE function to the central site 3174, requesting a specific data object.
4. The 3174 searches through its canonical name directory to locate the data object specified by the RETRIEVE function.
5. If the data object is found, it is transferred to NetView DM. NetView DM stores the data object in its resource repository.
6. The data is transmitted to the network site 3174(s) using the NetView DM function INSTALL with SEND. In this function you can specify that the data object be sent and installed in a single transmission.
7. When the 3174 receives the data, it searches through its installed disk media for the first occurrence of the data object type that it received.

For example, if the canonical name of the data object indicated configure data, the network site 3174 searches fixed disk 1 and then fixed disk 2 for a CTL00001 subdirectory. If the subdirectory is not found, the 3174 searches diskette drive 1 then diskette drive 2 for the Control diskette.

The data object is installed on the first CTL00001 subdirectory or the first Control diskette that is found.

If a CTL00001 subdirectory or a Control diskette is not found, a Volume not Mounted 084C0008 SNA registered sense code is returned to NetView DM and the data object is not installed.

8. IML of the data object can occur by using the manual IML operations at the 3174 or IML can occur electronically using the NetView DM function ACTIVATE.

The actions of the NetView DM operator and the central site 3174 planner for the above scenario can be performed on the same terminal. The NetView DM Operator station can be the same terminal that is used on port 0 of the 3174 containing the central site library. The 3174 CSCU function is performed when the 3174 is offline, and the NetView DM Operator function is performed when the 3174 is online to the host.

---

## Role of the Central Site 3174

The central site 3174 contains the customization information and microcode for all of the controllers in your network. The release level of the control and utility microcode being used in this controller should always be at the highest level available to ensure the ability to electronically distribute 3174 microcode regardless of the configuration and release levels. Creating the central site library and maintaining it are accomplished by using the Central Site Customizing Utility, which is explained in Part 1 of this manual.

## Hardware Requirements for the Central Site Controller

At least one optional diskette drive or fixed disk drive is required for a 3174 to be designated as a central site controller. Some models of the 3174 can have only one diskette drive and support CSCM only as a network site controller.

Fixed disks are the recommended media for storing your library members as more library members can be stored on a fixed disk than on diskette.

**Note:** A 3174 with the IBM Token-Ring Network Gateway feature installed cannot be configured to support CSCM as the central site controller. It must be configured to support CSCM as a network site 3174.

## Designating a Central Site 3174 during Customization

During customization, responding to configuration question 500 with a 2 designates the controller as being the central site 3174 that supports central site change management. Additional CSCM questions require you to enter an luname (logical unit name) for the controller. This must be the same luname you define to ACF/VTAM and NetView DM. For details about configuring for central site change management, see the *3174 Planning Guide* and the *3174 Utilities Guide*.

## How Data Objects Are Stored on the Central Site 3174

The source database of 3174 microcode data objects and customization data objects is the central site library and any diskettes or fixed disk subdirectories contained in the central site 3174. IBM 3174s using diskettes as the library media support 100 to 210 network site 3174 definitions per Library diskette. IBM 3174s using fixed disks as the library media support up to 3300 network site 3174 definitions per library subdirectory on a fixed disk.

**Note:** If you are using CSCM and you store 3300 network site 3174 definitions in your library subdirectory, you should consider the following factors to make best use of your fixed disk space to allow CSCM to access your library members.

1. How many customization data types make up each network site definition (minimum 1; maximum 3) (CFG, AEA, PAM).
2. The type of naming convention you use in your canonical names and your library member names. If you specify the lunames and the library member names the same, you can store more definitions.
3. If you assign version numbers to your library members, the recommended method is to use your own version numbers and to use the same version number on each data type that makes up a network site definition.

For information about naming library members, see "Library Member Naming Convention" on page 1-3. For information about version numbers, see "Library Member Version Numbers" on page 1-4.

IBM 3174 data objects are stored in the Central Site 3174 as shown in Table 4-1.

Table 4-1. 3174 CSCM Data Base	
Type of Data	How Data is Stored
Operational Control Microcode	Stored on a Control diskette or in subdirectory CTL00001 on a fixed disk.
Configure data (CFG)	Stored as library members on the Library diskette or in subdirectory LIB00001 on the fixed disks. (See note.)
AEA Configure data	Stored as library members on the Library diskette or in subdirectory LIB00001 on the fixed disks. (See note.)
Printer Authorization Matrix (PAM) data	Stored as library members on the Library diskette or in subdirectory LIB00001 on the fixed disks. (See note.)
Patch data	Stored as individual patches on a Control, Utility, or DSL diskette or in subdirectories CTL00001, UTL00001, or DSL00001 on a fixed disk.
Maintenance EC	A group of patches stored on a Control diskette or in subdirectory CTL00001 on a fixed disk.
RPQ microcode and RPQ merge data	Stored as merged data on a Control diskette or in subdirectory CTL00001 on a fixed disk.
Keyboard Definition Utility data	Stored on a Control diskette or in subdirectory CTL00001 on a fixed disk.
DSL microcode	Stored on DSL diskettes or in subdirectory DSL00001 on a fixed disk.
Utility Microcode	Stored on Utility diskettes or in subdirectory UTL00001 on a fixed disk.

**Note:** On a RETRIEVE operation, if the central site 3174 does not locate the requested data object in its library, it will search any installed Control diskette or CTL subdirectory. This applies only to Configure, PAM, and AEA configure data objects.



## Central Site 3174 Usage Recommendations

When you are using the central site 3174 in an LU 6.2 session with NetView DM we recommend that you IML the 3174 with the Control diskette in diskette drive 2 before you establish the session. You can then use diskette drive 1 to remove and install different diskettes that may be required for execution of your transmission plans. For example, you may have to insert a different Control diskette into diskette drive 1 that will be the source diskette for a new microcode release level, such as A5.0, or a unique version of KDU data.

**Important:** Always keep the Control diskette you used to IML your central site 3174 in its original diskette drive.

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## Role of the Network Site 3174

A network site 3174 is defined as any SNA-3174 that is configured to support central site change management as a network site 3174. This 3174 has the ability to process NetView DM functions in an LU 6.2 session.

## How Data is Distributed to the Network Site 3174

Once the Central Site 3174 is set up and the necessary microcode and customization data are stored, the central site planner can log onto NetView DM. The planner can then create and submit a transmission plan to retrieve data objects from the central site 3174 and store them in the NetView DM resource repository. This data is then distributed from the repository to the network site 3174s. The canonical name for each data object is the pointer NetView DM and CSCM use to locate and identify the correct data object.

The library member data needed to define a network site 3174 can be one of the following:

- A configure library member
- A configure library member and a PAM library member
- A configure library member and an AEA library member
- Configure, PAM, and AEA library members.

## Designating the Network Site 3174 during Customization

During customization, responding to configuration question 500 with a 1 designates the controller as a network site 3174 that supports central site change management. Additional CSCM questions require you to enter an luname for the 3174. This must be the same luname you defined to ACF/VTAM and NetView DM. For details about configuring for central site change management, see the *3174 Planning Guide* and the *3174 Utilities Guide*.

## Hardware Recommendations for the Network Site 3174

A network site 3174 does not require any additional hardware to function with CSCM. However, a fixed disk allows you to make better use of the flexibility and backup capabilities provided by CSCM and NetView DM. For this reason you should consider installing a fixed disk in each of your network site 3174s that will be configured for central site change management.

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## Role of the Non-CSCM 3174

A non-CSCM 3174 does not have the capability to support central site change management. During customization, responding to configuration question 500 with a **0** defines the 3174 as being a non-CSCM 3174. Any microcode changes for this type of 3174 are done by using diskettes. The customization data can still be maintained and new diskettes can still be generated from the central site library using the Central Site Customizing Utility. You may have a mix of SNA and non-SNA 3174s in your network. The non-SNA 3174s cannot be configured to support CSCM.



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## Chapter 5. Setting Up Central Site Change Management

Setting up central site change management is a multistep operation that requires modifications or installation of software on your host system and microcode upgrades on the 3174s in your network. For the initial installation of CSCM, you cannot distribute data objects electronically. Before you can distribute data electronically you must install the supporting microcode in the 3174s in your network. Because of this requirement the first part of installing CSCM is to manually update each of your controllers, either by doing a local change at each controller or mailing new diskettes from your central site. After your controllers have been upgraded, you can then use CSCM and NetView DM to electronically distribute and retrieve microcode changes.

If you already have an existing central site library, see "Setting Up CSCM with an Existing Library."

If you do not have an existing central site library, see "Setting Up CSCM without an Existing Library" on page 5-3.

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### Setting Up CSCM with an Existing Library

Use "CSCM Setup (Fixed Disk)" if your central site library will be stored on fixed disks.

Use "CSCM Setup (Diskette Only)" on page 5-2 if your central site library will be stored only on Library diskettes.

#### CSCM Setup (Fixed Disk)

1. Obtain Microcode release A4.0 or S4.0 or higher as required for your network.
2. Copy your existing Utility, DSL, and Library diskettes onto the fixed disk. (See "How to Copy Files" and "How to Perform Media Management" in *3174 Utilities Guide*.) This creates UTL00001, DSL00001, and LIB00001 subdirectories on the fixed disk.
3. Perform a microcode upgrade using 3174 microcode release A4.0, and reconfigure the central site 3174 to support CSCM. (See "How to Microcode Upgrade" in the *3174 Utilities Guide* and "Planning for Central Site Change Management" in the *3174 Planning Guide*.)
4. Use the Central Site Customizing Utility to:
  - a. Perform a microcode upgrade on each library member using microcode release A4.0 or S4.0 as required.
  - b. Update the configure library members to support CSCM.
5. Generate new Control diskettes for each network site controller.
6. Ensure that a Utility or Limited Function Utility diskette at release A4.0 or S4.0 is available at each network site controller.

7. Install the new Control and Utility diskettes throughout your network. On network site controllers that will use fixed disks, copy the new Control, Utility, and DSL diskettes onto the fixed disks as required.

**Notes:**

- a. If you plan to do electronic distributions to the fixed disks on your network site 3174s, you should create CTL, UTL, and DSL subdirectories on the fixed disks you will be updating. You cannot send data objects electronically to a fixed disk if the subdirectory for that data object is not established on the disk.
- b. It is very important to keep records.

### **CSCM Setup (Diskette Only)**

1. Obtain Microcode release A4.0 or S4.0 as required for your network.
2. Perform a microcode upgrade using 3174 microcode release A4.0 and reconfigure the central site 3174 to support CSCM. (See "How to Microcode Upgrade" in the *3174 Utilities Guide* and "Planning for Central Site Change Management" in the *3174 Planning Guide*.)
3. Use the Central Site Customizing Utility to:
  - a. Perform a microcode upgrade on each library member using microcode release A4.0 or S4.0 as required.
  - b. Update the configure library members to support CSCM.
4. Generate new Control diskettes for each library member.
5. Ensure that a Utility or Limited Function Utility diskette at release A4.0 or S4.0 is available at each network site controller.
6. Install the new Control diskettes throughout your network.

**Note:** It is very important to keep records.

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## Setting Up CSCM without an Existing Library

Use “CSCM Setup (Fixed Disk)” if your central site library will be stored on fixed disks.

Use “CSCM Setup (Diskette Only)” on page 5-4 if your central site library will be stored only on Library diskettes.

### CSCM Setup (Fixed Disk)

1. Obtain Microcode release A4.0 or S4.0 as required for your network.
2. Copy the following diskettes as required for your network onto a fixed disk in a 3174 designated as the central site 3174. This creates subdirectories on your fixed disk. See “How to Copy Files” and “How to Perform Media Management” in the *3174 Utilities Guide*.
  - a. Utility diskette microcode release A4.0 — Creates subdirectory UTL00001.
  - b. Downstream Load diskette — Creates subdirectory DSL00001.
3. Configure this 3174 for CSCM using microcode release A4.0. See “Planning for Central Site Change Management” in the *3174 Planning Guide*.
4. Use part 1 of this book to create the library subdirectory on a fixed disk for your network. An LIB subdirectory is created on the fixed disk when you are using the Central Site Customizing Utility.
  - Each library member must be created using microcode release A4.0 or S4.0.
  - Each library member must be configured for CSCM support.
5. Generate new Control diskettes for each library member.
6. Ensure that a Utility or Limited Function Utility diskette at release A4.0 or S4.0 is available at each network site controller.
7. Install the new Control diskettes throughout your network.

On network site controllers that will use fixed disks, copy the Control, Utility, and DSL diskettes onto the fixed disks as required.

#### Notes:

- a. If you plan to do electronic distributions to the fixed disks on your network site 3174s, you should create CTL, UTL, and DSL subdirectories on the fixed disks you will be updating. You cannot send data objects electronically to a fixed disk if the subdirectory for that data object is not established on the disk.
- b. It is very important to keep records.

## CSCM Setup (Diskette Only)

1. Obtain Microcode release A4.0 or S4.0 as required for your network.
2. Perform a microcode upgrade using microcode release A4.0 on a 3174 designated as your central site 3174.
3. Configure this 3174 for CSCM. See "Planning for Central Site Change Management" in the *3174 Planning Guide*.
4. Use part 1 of this book to create the Library diskettes for your network.
  - Each library member must be created using microcode release A4.0 or S4.0.
  - Each library member must be configured for CSCM support.
5. Generate new Control diskettes for each library member.
6. Make a copy of a Utility or Limited Function Utility diskette for each controller in your network that will support CSCM.
7. Install the new Control and Utility diskettes throughout your network.

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## Defining a 3174 to ACF/VTAM

To support CSCM, an additional logical unit (LU) type 6.2 must be defined to ACF/VTAM for each 3174 in your network that will be receiving microcode and customization data objects electronically. This includes your central site 3174 and each network site 3174. You also assign an luname to each controller when you customize for CSCM. The lunames you define to ACF/VTAM should match the lunames you define for your library members stored in the central site 3174 library. When you configure each network site 3174, using either the Central Site Customizing Utility or the local customizing utility, use the same luname.

### Defining the Logical Unit

The following parameters pertain to the LU for the 3174 in the Local SNA, NCP, or Switched Major Node.

LOCADDR	Set this to 01. Specifies the logical unit's local address.
DLOGMOD	Set this to BATCH. Specifies the default name of the logon mode table entry for this logical unit's session.  <b>Note:</b> If this 3174 is using the Format Storage RPQ, set this to the appropriate value required for Format Storage when that session is established.
ENCR	Set this to NONE. ACF/VTAM does not support encrypt/decrypt for LU type 6.2 sessions.
ISTATUS	Set this to ACTIVE. Specifies that the logical unit will be activated automatically when the physical unit is activated.
MODETAB	Set this to BATCH. Specifies the logon mode table used to associate a logon mode name with a set of session parameters.
PACING	Specifies the way ACF/VTAM paces the flow of data. Set the pacing value using the following algorithm.  $(2n-1) \times \text{RUSIZE} \leq 4096$  where n = the pacing value The optimum value for 3174 is pacing = 1.
SSCPFM	Set this to FSS. This specifies that the LU supports only formatted commands when it communicates with the SSCP.



## Defining the Logon Mode

The following parameters have to be specified for the MODEENT macro instruction for the BATCH mode name. The MODEENT macro follows the MODETAB or another MODEENT macro instruction.

COMPROT	Set this to X'50A1'. Specifies the common LU protocols for this logon mode.
COS = name	Identifies the class of service used for sessions established with this logon mode.
ENCR	Set this to X'0000'. ACF/VTAM does not support encrypt/decrypt for LU 6.2 sessions.
FMPROF	Set this to X'13'. This specifies the function management profile.
LOGMODE	Set this to BATCH.
PRIPROT	Set this to X'B0'. Specifies the primary LU protocol, which is multiple RU chaining, immediate request mode, and definite or exception response.
PSERVIC	Set this to X'060200000000000000002400'. Specifies the LU unit presentation service profile.
RUSIZES	<p>The 3174 supports a maximum "primary" RU size of 4K bytes. Any BIND command that is issued with an RU size greater than 4K is negotiated to 4K. The minimum RU size is 256 bytes. A BIND command with an RU size smaller than 256 bytes is rejected.</p> <p>You should also specify your "secondary" RU size the same as the "primary" RU size.</p> <p>For channel-attached 3174s, specify the RU size at 4K bytes. For teleprocessing-attached 3174s, link speeds and connectivity factors must be considered to decide the optimum RU size.</p>
PSNDPAC	This value is not checked by the 3174. It specifies the primary send pacing count.
SRCVPAC	<p>This value must be nonzero. It specifies the secondary receive pacing count. The value for this depends on the RUSIZE you have specified.</p> <p style="margin-left: 40px;">RUSIZE = 4096 PACING = 1 RUSIZE = 1280 PACING = 2 RUSIZE = 256 PACING = 8</p> <p>If your RU size is not one of those listed above, use the following formula.</p> $(2N-1) \times RUSIZE \leq 4096$ <p>where n = the pacing value. The optimum value for 3174 is pacing = 1.</p>
SSNDPAC	Specifies the secondary send pacing count. The 3174 has no dependencies on this value. It is used as specified.
SECPROT	Set this to X'BO'. It specifies the secondary LU protocol for this logon mode.
TSPROF	Set this to X'07'. This specifies the transmission services profile.
TYPE	Set this to 0. This specifies the type of BIND command.

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## Chapter 6. Canonical Name Description

Canonical names provide a unique identifier for data objects that are stored in the Central Site 3174 and the NetView DM resource repository. A canonical name identifies the data object type and the machine type that owns the data object. These names are used in NetView DM transmission plans to identify the data object targeted for distribution or retrieval.

Canonical names vary in length, depending on how many fields are required to identify a 3174 data object. Currently up to seven fields are used for MCODE canonical names and up to eight fields are used for MCUST canonical names. Canonical names for the 3174 consist of two major groups: MCODE for 3174 microcode, and MCUST for data that is created using the 3174 customization utilities.

### MCODE

The canonical names for this group is built from the label data written on the 3174 diskettes. This group is made up of the following:

- Control Microcode
  - Functional release — FUNCTEC
  - Suffix release — SUFFIXEC
  - Maintenance EC release — MAINTEC
  - RPQ release — FEATURE
  - Patch
- Utility Microcode
  - Functional release — FUNCTEC
  - Suffix release — SUFFIXEC
  - RPQ release — FEATURE
  - Patch
- Downstream Load (DSL) Microcode.
  - RPQ Microcode
  - Patch

### MCUST

This group is made from the data created when using one of the 3174 customization utilities:

- Configure data
  - AEA configure data
  - PAM data
  - RPQ merge data
  - KDU data.

MCUST canonical names are created when you “put” configure data into a library member and the CSCM customization questions in the configure data have been set to support CSCM. The CSCM customization questions enable CSCM, establish a network name if required, and establish a luname. You assign the librname with the central site customizing utility. We recommend that the librname and the luname be identical.

## MCODE Canonical Names

Canonical names used to identify 3174 microcode are shown in the following chart. The fields of the canonical name are generated by the 3174 microcode and must be used in your transmission plans as shown. The fields shown as all uppercase are set values and are the same in every 3174 microcode release. The fields shown in lowercase will vary from release to release. For example, *mclvl* can be A0400 in one release and A0401 in a suffix release. This allows you to specify variable items such as microcode levels, DSL numbers, RPQ numbers and Julian dates in the NetView DM functions that make up a transmission plan.

**Note:** This table shows the complete canonical name for 3174 MCODE data objects. In some cases, you can use partial canonical names. See "Using Partial Canonical Names" on page 6-5.

Fields	1	2	3	4	5	6	7
	MCODE	3174	NA	FUNCTEC	mclvl	CONTROL	
	MCODE	3174	NA	FUNCTEC	mclvl	UTILITY	
	MCODE	3174	NA	FEATURE	mclvl	CONTROL	rpqnumbr
	MCODE	3174	NA	FEATURE	mclvl	UTILITY	rpqnumbr
	MCODE	3174	NA	SUFFIXEC	mclvl	CONTROL	
	MCODE	3174	NA	SUFFIXEC	mclvl	UTILITY	
	MCODE	3174	NA	PATCH	patchno		
	MCODE	3174	NA	FEATURE	mclvl	RPQ	rpqnumbr
	MCODE	3174	NA	MAINTEC	mclvl	CONTROL	jdate
	MCODE	3174	NA	FUNCTEC	mclvl	DSL	NNNN

Field 1 Identifies the data object as microcode.

Field 2 Identifies the product. It is always 3174.

Field 3 Field 3 is not used.

Field 4 The content of this field varies:

PATCH Identifies patch data

FUNCTEC A new functional release of 3174 operational microcode.

FEATURE Indicates that RPQ microcode was included by IBM manufacturing before this microcode release was distributed, if field 6 contains CONTROL or UTILITY.

Indicates RPQ microcode that was merged using the 3174 merge procedure, if field 6 contains RPQ.

MAINTEC Identifies patches for a FUNCTEC, SUFFIXEC, or a FEATURE microcode release that is the same release level.

For example, if you have a FUNCTEC microcode release A0300 and a MAINTEC release A0300. The MAINTEC release contains only the patch data that applies to the FUNCTEC release A0300.

SUFFIXEC Identifies a suffix level of a base release of microcode. For example, release A0301 and A0302 are suffix releases of A0300.

**Field 5** This field contains the microcode release level, or if the MCODE is a patch, it will contain a patch number. This field contains 5 characters for microcode release levels. It contains 7 characters if it is a patch. However, when you are using canonical names in NetView DM transmission plans, you do not have to always specify the complete release level in the canonical name.

For example, if you wanted to retrieve the control microcode from a network site 3174 and you were not sure of the exact microcode release level, you could use an asterisk (\*) as the microcode level in field five of the canonical name. Then you would set the MATCHIND parameter in the NetView DM function to **5,h** which tells the receiving 3174 to send back a copy of the highest level of its microcode. When the retrieve operation is executed, the network site 3174 will send a copy of its highest release level of control microcode.

**Field 6** Identifies the type of microcode. This field will be either CONTROL, UTILITY, RPQ, or DSL.

**Field 7** For maintenance microcode releases, this field contains the Julian date of the release. Julian dates are 5 characters in length.

For DSL microcode, this field contains the device identifier number of the DSL microcode.

This field can contain one of the following:

3290 — For 3290 terminals

3179 — For 3179 terminals

3193 — For 3193 terminals

3020 — For 3174 Asynchronous Emulation Adapter Feature microcode.

For RPQs, this field contains an 8-character RPQ number.

## MCUST Canonical Names

The MCUST Canonical names used to identify 3174 customizing data are shown in the following table. The fields of the MCUST canonical names are generated by the 3174 microcode when you are using the Central Site Customizing Utility.

Field 6 and the fields that contain MCUST, 3174, and NA are set values and cannot be changed. The network name (netwname) and luname are specified when you customize your Control disks to support CSCM.

The library member name (librname) is specified when you do a “Put Data” operation of the CFG (configure) data type to a library member. The CSCM customization questions must have been specified to support CSCM. Otherwise, a canonical name is not generated.

The version numbers (vernum) are specified when you use central site customizing. See “Library Member Version Numbers” on page 1-4 for details.

In the MCUST canonical names in the following table, the fields shown in uppercase are set values and cannot be changed.

The fields shown in lowercase vary depending on the naming convention you have used for your network names, lunames, library member names, KDU identifiers and version numbers. This allows you to specify items such as network names, logical unit names, library member names and version numbers in the NetView DM functions that make up the transmission plans.

**Note:** This table shows the complete canonical name for 3174 MCUST data objects. In some cases, you can use partial canonical names. See “Using Partial Canonical Names” on page 6-5.

Fields	1	2	3	4	5	6	7	8
	MCUST	3174	NA	netwname	luname	CFG	librname	vernum
	MCUST	3174	NA	netwname	luname	PAM	librname	vernum
	MCUST	3174	NA	NA	NA	KDU	kduident	
	MCUST	3174	NA	NA	NA	RPQ	rpqident	
	MCUST	3174	NA	netwname	luname	AEA	librname	vernum

Field 1 Identifies the data object as customizing data.

Field 2 Identifies the product. It is always 3174.

Field 3 Field 3 is not used.

Field 4 When used, this field contains the network ID of the target 3174. This field is a maximum of 8 characters.

Field 5 When used, this field contains the SNA logical unit name of the target 3174. This field is a maximum of 8 characters.

Field 6 Identifies the type of customizing data. This field contains:

CFG — Configure data

PAM — Printer Authorization Matrix data

AEA — Asynchronous Emulation Adapter configure data

KDU — Modifiable Keyboard configure data

RPQ — Request for Price Quotation merge data.

Field 7 For CFG, AEA, and PAM, this identifies the central site library member name of the data.

For KDU and RPQ, this identifies the specific KDU or RPQ data. This field is a maximum of 8 characters.

**Note:** If the 3174 customization data is changed using the configure utility instead of the Central Site Customizing Utility, this field will contain LOCALCHG to indicate a local change has been done.

Field 8 When used, this field identifies the version number of the library member. This field is a maximum of 6 characters.

**Note:** When field 7 contains LOCALCHG, this field contains a randomly assigned number.

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## Using Partial Canonical Names

NetView DM and CSCM allow the usage of partial canonical names. This means you can leave out certain fields or you can use a matching indicator (MATCHIND) or a delete matching (DELMATCHIND) indicator in some NetView DM functions to replace certain fields.

### Partial MCODE Canonical Names

The following list of MCODE canonical names shows in uppercase the fields that are always required. These fields must be specified in your transmission plans exactly as they are shown. The fields that can be left out or replaced by a MATCHIND are shown in lowercase italics. This list is followed by an example.

MCODE.3174.*na.functec.mclvl*.CONTROL  
MCODE.3174.*na.functec.mclvl*.UTILITY  
MCODE.3174.*na.feature.mclvl*.CONTROL.*rpqnum*  
MCODE.3174.*na.feature.mclvl*.UTILITY.*rpqnum*  
MCODE.3174.*na.suffixec.mclvl*.CONTROL  
MCODE.3174.*na.suffixec.mclvl*.UTILITY  
MCODE.3174.*na*.PATCH.PATCHNO  
MCODE.3174.*na.feature.mclvl*.RPQ.*rpqnum*  
MCODE.3174.*na.maintec.mclvl*.CONTROL.*jdate*  
MCODE.3174.*na.maintec.mclvl*.UTILITY.*jdate*  
MCODE.3174.*na.functec.mrnlv*.DSL.NNNN

#### Example

This example shows three ways an MCODE canonical name can be specified in a NetView DM transmission plan.

A complete canonical name for a functional release of 3174 control microcode is:  
*MCODE.3174.NA.FUNCTEC.A0500.CONTROL*

The same canonical name with fields 3 and 5 left out is:  
*MCODE.3174..FUNCTEC..CONTROL*

**Note:** NetView DM supplies default values for the fields that have been left out.

The same canonical name using a MATCHIND parameter for field 5 is:  
*MCODE.3174.NA.FUNCTEC.\*.CONTROL,*  
*MATCHIND = (5,h)*

## Partial MCUST Canonical Names

The following list of MCUST canonical names shows the fields that are required in uppercase. These fields must be specified in your transmission plans exactly as they are shown. The fields that can be left out or replaced by a MATCHIND or DELMATCHIND are shown in lowercase italics. This list is followed by an example.

MCUST.3174.*na*.NETID.LUNAME.CFG.*librname.vernum*

MCUST.3174.*na*.NETID.LUNAME.PAM.*librname.vernum*

MCUST.3174.*na.na.na*.KDU.*kduident*

MCUST.3174.*na.na.na*.RPQ.*rpqident*

MCUST.3174.*na*.NETID.LUNAME.AEA.*librname.vernum*

**Note:** NETIDs and LUNAMES do not have to be specified for RETRIEVE functions. These fields do have to be specified for INSTALL functions and SEND functions.

### Example

This example shows three ways an MCUST canonical name can be specified in a NetView DM transmission plan.

A complete canonical name for a MCUST CFG data object is:

*MCUST.3174.na.NETID.LUNAME.CFG.librname.vernum*

The same canonical name with fields 3, 7, and 8 left out is:

*MCUST.3174..NETID.LUNAME.CFG...*

**Note:** If you are not using network names, you can leave the NETID field out.

The same canonical name using MATCHIND parameters for fields 7 and 8 is:

*MCUST.3174.na.NETID.LUNAME.CFG.\*\*,  
MATCHIND = ((7,h),(8,l))*

---

## Using Control Disk Data Canonical Names

This section describes the Control disk data that can be distributed to network site 3174s by CSCM via NetView DM. It identifies the source of the data objects in the central site 3174. Each data object that is distributed is identified by a canonical name, a name that is unique throughout the network. To minimize the amount of data that must be transferred through your network, the data that is contained on the Control disk is broken into several segments. This allows you to transmit to your network site controllers only that particular segment that has been changed.

IBM 3174 operational Control disk microcode is resident in the central site 3174 either as a Control diskette or as the CTL00001 subdirectory on a fixed disk. The Control disk microcode can also be stored in the NetView DM repository. A copy of the highest available level of Control disk microcode should be kept in the central site 3174. When Control disk data is sent to a network site 3174, only the operational microcode contained on the control disk is transmitted. The other data objects that make up the complete microcode package, such as configure data, PAM, AEA configure data, KDU and RPQ data, are stored and transmitted separately.

## **MCODE.3174.NA.FUNCTEC.mclvl.CONTROL**

FUNCTEC with CONTROL indicates a new functional release of 3174 control microcode, such as A0400 or S0400. Prior to CSCM, you installed a new functional release by performing a microcode upgrade and then reconfiguring to answer the new configuration questions required to implement the new functions.

To accomplish this electronically:

1. Use the customizing utility to perform a microcode upgrade on a Control diskette or CTL00001 subdirectory in your central site 3174.
2. Reconfigure the Control disk to answer the new configuration questions.
3. Use the Central Site Customizing Utility with the new FUNCTEC utility microcode to perform a microcode upgrade on the appropriate central site library members.
4. Update each library member to answer the new configuration questions.
5. Build a NetView DM transmission plan to distribute the FUNCTEC control microcode and new MCUST Configure data.

The transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the MCUST configure data object from the central site 3174
- RETRIEVE to get the FUNCTEC control microcode from the central site 3174
- SEND to transmit the new MCUST configure data to the network site 3174
- INSTALL with SEND= YES, COREQUISITE = GROUPID to transmit the new FUNCTEC control microcode. The GROUPID identifies the MCUST configure data object to be installed with the FUNCTEC control microcode.

This causes the receiving 3174 to install the control microcode and the configure data at the same time.

## **MCODE.3174.NA.SUFFIXEC.mclvl.CONTROL**

SUFFIXEC with CONTROL indicates an updated functional release of 3174 control microcode. The suffix release does not support any new functions but contains improvements to the base release. For a FUNCTEC release of A0400, a suffix release could be A0401, or A0402, or A0403, and so on.

Prior to CSCM, a suffix release of control microcode was installed by performing a microcode upgrade on each controller in your network.

To accomplish this electronically:

1. Use the customizing utility to perform a microcode upgrade on a Control diskette or CTL00001 subdirectory on a fixed disk in your central site 3174.
2. Build a NetView DM transmission plan to distribute the SUFFIXEC control microcode.

The transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the SUFFIXEC control microcode from the central site 3174
- INSTALL with SEND to transmit the SUFFIXEC control microcode to the network site controller.

**Note:** For this type of update it is not necessary to redistribute your MCUST configure data objects.



## **MCODE.3174.NA.FEATURE.mclvl.CONTROL.rpqnumbr**

This is a feature release of 3174 control microcode. FEATURE indicates RPQ microcode is included and the rpqnumbr identifies the number assigned to the RPQ.

Prior to CSCM, a feature release of control microcode was installed by performing a microcode upgrade on each 3174 in your network.

To accomplish this electronically:

1. Use the customizing utility to perform a microcode upgrade on a Control diskette or CTL00001 subdirectory on a fixed disk in your central site 3174.
2. Build a NetView DM transmission plan to distribute the FEATURE control microcode.

The transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the FEATURE control microcode from the central site 3174
- INSTALL with SEND to transmit the FEATURE control microcode to the network site controller.

## **MCODE.3174.NA.MAINTec.mclvl.CONTROL.jdate**

A MAINTec Control disk contains microcode patches that apply to a Control Disk that is the same microcode release level.

For example, a MAINTec control microcode release level A0400 applies to FUNCTec microcode release A0400. The Julian date (jdate) identifies the control microcode as a MAINTec release. FUNCTec, SUFFIXec, and FEATURE releases do not have Julian dates assigned to them.

Prior to CSCM, a MAINTec release of control microcode was installed by performing a microcode upgrade on each 3174 in your network.

To accomplish this electronically:

1. Use the customizing utility to perform a microcode upgrade on a Control diskette or CTL00001 subdirectory on a fixed disk in your central site 3174.
2. Build a NetView DM transmission plan to distribute the MAINTec control microcode.

The transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the MAINTec control microcode from the central site 3174
- INSTALL with SEND to transit the MAINTec control microcode to the network site controller.

For MAINTec control disks, the key to locating the latest level of MAINTec disks is the Julian date. The microcode level can be the same but a Julian date of 88210 indicates a newer version than a Julian date of 88110.

## **MCODE.3174.NA.FEATURE.mclvl.RPQ.rpqnumbr**

FEATURE with RPQ as the microcode type indicates a specific 3174 RPQ microcode data object.

Prior to CSCM, you installed RPQ microcode by performing the RPQ merge customizing procedure for all of the control disks that needed the RPQ.

To accomplish this electronically:

1. Use the customizing utility to merge the RPQ data onto the Control diskette or subdirectory CTL00001 on a fixed disk in your central site 3174.
2. Build a NetView DM transmission plan to distribute the MCODE and MCUST RPQ data.

The transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the MCODE RPQ microcode from the central site 3174
- RETRIEVE to get the MCUST RPQ data from the central site 3174
- SEND to transmit the MCUST RPQ data to the network site controller
- INSTALL with SEND=YES, COREQUISITE=GROUPID to transmit the RPQ microcode to the network site 3174. The GROUPID identifies the MCUST RPQ data object to be installed with the RPQ microcode.

This causes the receiving 3174 to install the RPQ microcode and the RPQ customization data at the same time.

CSCM has a limitation of sending six corequisite RPQs in a single INSTALL function. This allows you to install and send a maximum of seven RPQs. However, the 3174 is capable of using 10 RPQs. To update or change 10 RPQs, you will have to use two separate INSTALL functions.

## **MCODE.3174.NA.PATCH.patchno (PC ZC)**

Patch microcode is either installed manually by an IBM customer engineer using the 3174 patch utility, or patches can be installed at the plant of manufacture. Patches are created to fix specific problems that may be unique to your network. To test patches that are installed by customer engineers, we recommend that you install the patch on your central site controller and verify your problem has been resolved before distributing a patch throughout your network. Patches installed by the plant of manufacture have already been tested.

The patch number in the canonical name identifies the type of disk the patch belongs to. The first 2 characters of a control disk patch are PC or ZC.

To distribute patches electronically:

1. Use the NetView DM function RETRIEVE to obtain the patch data object and store it in the NetView DM resource repository.
2. Use the NetView DM function INSTALL with SEND to transmit the patch to the appropriate network site 3174s.

## **MCUST.3174.NA.netname.luname.CFG.librname.vernum**

MCUST with CFG indicates a library member containing the configure data for the 3174 identified by the luname and librname.

During customization of each 3174:

The network name (netname) is set in your response to configuration question 501.

The luname is set in your response to configuration question 502.

The library member name (librname) and version number (vernum) are set when you use the Central Site Customizing Utility.

Prior to CSCM, you changed the configure data on your controllers by using the upgrade procedure of the Central Site Customizing Utility and then generating a new Control diskette for each 3174 that needed to be changed.

To accomplish this electronically:

1. Use the Central Site Customizing Utility to update the configure data in the appropriate library members on your Library diskettes or the LIB00001 subdirectory in your central site 3174.
2. Build a NetView DM transmission plan to distribute the MCUST CFG data.

For all network site 3174s targeted to receive the change, the transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the MCUST configure data from the central site 3174
- INSTALL with SEND to transmit the MCUST configure data to the network site controller.

## **MCUST.3174.NA.netname.luname.PAM.librname.vernum**

MCUST with PAM indicates a library member containing the printer authorization matrix data for the 3174 identified by the luname.

During customization of each 3174:

The network name (netname) is set in your response to configuration question 501.

The luname is set in your response to configuration question 502.

The library member name (librname) and version number (vernum) are set when you use the Central Site Customizing Utility.

Prior to CSCM, you changed the PAM data on your controllers by using the upgrade procedure of the Central Site Customizing Utility and then generating a new Control diskette for each 3174 that needed to be changed.

To accomplish this electronically:

1. Use the update procedure of the Central Site Customizing Utility to change the appropriate library members either on your Library diskettes or in the LIB00001 subdirectory in your central site 3174.
2. Build a NetView DM transmission plan to distribute the MCUST PAM data.

For all network site 3174s targeted to receive the change, the transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the MCUST PAM data from the central site 3174
- INSTALL with SEND to transmit the MCUST PAM data to the network site controller.

## **MCUST.3174.NA.NA.NA.KDU.kduident**

MCUST with KDU indicates the modified keyboard data stored on a Control disk. The kduident is set when you are customizing your Control disks. If you do not specify a kduident during customization, the kduident defaults to the microcode release level of the Control disk. Prior to CSCM, you changed the KDU data on your controllers by using the customizing keyboard definition utility and then generating a new Control diskette for each 3174 that needed to be changed.

To accomplish this electronically:

1. Use the customizing keyboard definition utility to store the KDU data either on a Control diskette or CTL00001 subdirectory in your central site 3174.
2. If you have more than one version of KDU data in your network, you will have to create the KDU data on another control disk.
3. Build a NetView DM transmission plan to distribute the MCUST KDU data.

The transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the MCUST KDU data from the central site 3174
- INSTALL with SEND to transmit the MCUST KDU data to the Network site controller.

### **Notes:**

1. If all of your network site 3174s use the same KDU data, you can build a transmission plan that would send this data to all of your controllers.
2. If you have different versions of KDU data in your network, you will have to use separate RETRIEVE and separate INSTALL with SEND functions to distribute the data. This also requires using different Control diskettes at the central site 3174 because only one version of KDU data can be installed on a Control diskette or CTL00001 subdirectory.

## **MCUST.3174.NA.NA.NA.RPQ.rpqident**

MCUST with RPQ indicates RPQ merge data that is stored on a Control diskette or CTL00001 subdirectory. The rpqident is set when you are performing the RPQ merge utility. If you do not specify an rpqident during the merge utility, the rpqident defaults to the microcode release level of the control disk. Prior to CSCM, you changed the RPQ data on your controllers by merging the data onto your Control diskette or CTL00001 subdirectory on a fixed disk and then generating a new Control diskette for each 3174 that needed to be changed.

To accomplish this electronically:

1. Use the customizing utility to merge the RPQ data onto a Control diskette in your central site 3174.
2. Build a NetView DM transmission plan to distribute the MCODE and MCUST RPQ data.

The transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the MCODE RPQ microcode from the central site 3174
- RETRIEVE to get the MCUST RPQ data from the central site 3174
- SEND to transmit the MCUST RPQ data to the network site controller
- INSTALL with SEND= YES, COREQUISITE = GROUPID to transmit the RPQ microcode to the network site 3174. The GROUPID identifies the MCUST RPQ data object to be installed with the RPQ microcode.

This causes the receiving 3174 to install the RPQ microcode and the RPQ customization data at the same time.

**Note:** If you have different versions of RPQ MCUST data for your network, you will have to use separate RETRIEVE and separate INSTALL with SEND functions to distribute the data. This will also require using different Control diskettes at the central site 3174 because only one version of RPQ MCUST data can be installed on a Control diskette or CTL00001 subdirectory.

## **MCUST.3174.NA.netname.luname.AEA.librname.vernum**

MCUST with AEA indicates a library member containing the AEA configure data for the 3174 identified by the luname and librname.

During customization of each 3174:

The network name (netname) is set in your response to configuration question 501

The luname is set in your response to configuration question 502.

The library member name (librname) and version number (vernum) are set when you use the Central Site Customizing Utility.

Prior to CSCM, you changed the AEA configure data on your controllers by using the upgrade procedure of the Central Site Customizing Utility and then generating a new Control diskette for each 3174 that needed to be changed.

To accomplish this electronically:

1. Use the update procedure of the Central Site Customizing Utility to change the AEA configure data in the appropriate library members either on your Library diskettes or the LIB00001 subdirectory in your central site 3174.
2. Build a NetView DM transmission plan to distribute the MCUST AEA data.

For all network site 3174s targeted to receive the change, the transmission plan would consist of the following NetView DM functions:

- RETRIEVE to get the MCUST AEA data from the central site 3174
- INSTALL with SEND to transmit the MCUST AEA data to the network site controller.

---

## **Using Utility Disk Data Canonical Names**

This section describes the Utility disk data that can be distributed to network site 3174s by CSCM via NetView DM. Also described is the source of the Utility disk data objects at the central site 3174. Each data object that is distributed is identified by a canonical name, a name that is unique throughout the network.

Utility microcode is resident in the central site 3174 either on a Utility diskette or as the UTL00001 subdirectory on a fixed disk. The Utility disk microcode can also be stored in the NetView DM repository. A copy of the highest available level of Utility disk microcode should be kept on the central site 3174. When Utility disk data is sent to a network site 3174, only the Utility microcode contained on the disk is transmitted. The exception to this is Utility disk patch data.

To maintain control of customization changes at the central site, we recommend that you maintain a Utility diskette only on the central site 3174. A new diskette called the Limited Function Utility (LFU) diskette is available for your network site controllers. This diskette has diagnostics and a subset of the 3174 customization utilities. You cannot configure with an LFU diskette. This prevents a remote user from changing the configuration of a controller.

You cannot distribute LFU diskettes via CSCM. These diskettes must be physically sent to the network site 3174s.

## **MCODE.3174.NA.FUNCTEC.mclvl.UTILITY**

FUNCTEC with UTILITY indicates a new functional release of 3174 utility microcode, such as A0400 or S0400. Prior to CSCM, you changed the utility microcode in your network by shipping a new Utility diskette to each 3174.

To accomplish this electronically:

1. Either install the new Utility diskette in a diskette drive or copy the diskette to a fixed disk in your central site 3174.
2. Build a NetView DM transmission plan to distribute the FUNCTEC utility microcode.
3. Before the transmission plan is executed, the network site 3174 operators must either install their existing Utility diskette in a diskette drive, or the UTL00001 subdirectory must exist on a fixed disk in the receiving 3174s.

For all network site 3174s targeted to receive the change, the transmission plan would consist of the following NetView DM functions:

- A single RETRIEVE function to get the utility microcode from the central site 3174
- Multiple INSTALL with SEND functions to transmit the utility microcode to the network site controllers.

## **MCODE.3174.NA.SUFFIXEC.mclvl.UTILITY**

SUFFIXEC indicates an updated functional release of 3174 utility microcode. The suffix release does not support any new functions but contains improvements to the base release. For a FUNCTEC release of A0400, a suffix release could be A0401, or A0402, or A0403, and so on.

Prior to CSCM, a suffix release of utility microcode was installed by shipping a new Utility diskette to each controller in your network.

To accomplish this electronically:

1. Either install the new Utility diskette in a diskette drive or copy the diskette to a fixed disk in your central site 3174.
2. Build a NetView DM transmission plan to distribute the SUFFIXEC utility microcode.
3. Before the transmission plan is executed, the network site operators must either install their existing Utility diskette in a diskette drive, or the UTL00001 subdirectory must exist on a fixed disk in the receiving 3174s.

For all network site 3174s targeted to receive this change, the transmission plan would consist of the following NetView DM functions:

- A single RETRIEVE function to get the utility microcode from the central site 3174
- Multiple INSTALL with SEND functions to transmit the Utility microcode to the network site controllers.



## **MCODE.3174.NA.FEATURE.mclvl.UTILITY.rpqnumbr**

This a feature release of 3174 utility microcode. FEATURE indicates RPQ microcode is included and the rpqnumbr identifies the number assigned to the RPQ.

Prior to CSCM, a FEATURE release of utility microcode was installed by shipping a new Utility diskette to each controller in your network.

To accomplish this electronically:

1. Either install the new Utility diskette in a diskette drive or copy the diskette to a fixed disk in your central site 3174.
2. Build a NetView DM transmission plan to distribute the FEATURE utility microcode.
3. Before the transmission plan is executed, the network site 3174 operator must either install their existing Utility diskette in a diskette drive, or the UTL00001 subdirectory must exist on a fixed disk in the receiving 3174s.

For all network site 3174s targeted to receive the change, the transmission plan would consist of the following NetView DM functions:

- A single RETRIEVE function to get the utility microcode from the central site 3174
- Multiple INSTALL with SEND functions to transmit the utility microcode to the network site controllers.

## **MCODE.3174.NA.PATCH.patchno (ZU)**

Patch microcode is either installed manually by an IBM customer engineer using the 3174 patch utility, or patches can be installed at the plant of manufacture. Patches are created to fix specific problems that may be unique to your network. To test patches that are installed by customer engineers, we recommend that you install the patch on your central site controller and verify that your problem has been resolved before distributing a patch throughout your network. Patches installed by the plant of manufacture have already been tested.

The patch number in the canonical name identifies the type of disk the patch belongs to. The first 2 characters of a patch for a Utility disk are ZU.

To distribute patches electronically:

Before the transmission plan is executed, the network site operator must either install their existing Utility diskettes in a diskette drive, or the UTL00001 subdirectory must exist on a fixed disk in the receiving 3174s.

For all network site 3174s targeted to receive the patch(es), the transmission plan would consist of the following NetView DM functions:

- A single RETRIEVE function to obtain the patch data object and store it in the NetView DM resource repository
- Multiple INSTALL with SEND functions to transmit the patch to the appropriate network site 3174s.

---

## Using Downstream Load Disk Data Canonical Names

**Warning:** If an attached distributed function terminal is receiving a microcode load from its 3174, or if the setup for a DFT is being changed at the same time you are electronically updating a DSL disk in the same 3174, problems could occur. You should either notify DFT users or update DSL data when no terminal user sessions are in progress.

Four versions of downstream load microcode are currently supported by the 3174:

- 3290
- 3179
- 3193
- 3020 Asynchronous Emulation Adapter (AEA).

When more than one version of DSL microcode is required on your controllers, you merge the different versions of the DSL microcode onto one DSL disk. CSCM provides the ability to distribute a specific version of DSL microcode by entering the DSL type number in field seven of the canonical name.

For example, to distribute a new release of AEA microcode, enter **3020** for field seven and the new release level of the microcode for field five of the canonical name.

### **MCODE.3174.NA.FUNCTEC.mrnlv.DSL.nnnn**

FUNCTEC with DSL indicates a new functional release of Downstream Load microcode. nnnn indicates the device type the DSL microcode supports. Prior to CSCM, you installed new DSL microcode by sending the DSL diskette to the 3174s in your network. When you had more than one DSL device type, you merged the new DSL microcode onto the existing DSL diskette.

To accomplish this electronically:

1. Install the new DSL diskette in one of your diskette drives on the central site 3174.
2. Build a NetView DM transmission plan to distribute the FUNCTEC DSL microcode

The DSL microcode will be automatically merged onto the DSL diskette or into the DSL subdirectory on a fixed disk by the receiving 3174.

For all network site 3174s targeted to receive the change, the transmission plan would consist of the following NetView DM functions:

- A single RETRIEVE to get the FUNCTEC DSL microcode from the central site 3174
- Multiple INSTALL with SEND functions to transmit the FUNCTEC DSL microcode to the network site 3174s.

## **MCODE.3174.NA.PATCH.patchno (zm)**

Patch microcode is either installed manually by an IBM customer engineer using the 3174 patch utility, or patches can be installed at the plant of manufacture. Patches are created to fix specific problems that may be unique to your network. To test patches that are installed by customer engineers, we recommend that you install the patch on your central site controller and verify your problem has been resolved before distributing a patch throughout your network. Patches installed by the plant of manufacture have already been tested.

The patch number in the canonical name identifies the type of disk the patch belongs to. The first 2 characters of a patch for the DSL disk that supports the 3174 Asynchronous Emulation Adapter are ZM.

To distribute patches electronically:

- Before the transmission plan is executed, the network site operator must either install their existing DSL diskettes in a diskette drive or the DSL00001 subdirectory must exist on a fixed disk.

For all network site 3174s targeted to receive the patch(es) the transmission plan would consist of the following NetView DM functions:

- A single RETRIEVE function to obtain the patch data object and store it in the NetView DM resource repository
- Multiple INSTALL with SEND functions to transmit the patch to the appropriate network site 3174s.

---

## Chapter 7. NetView DM Functions for the 3174

This chapter describes the NetView DM functions that apply to the 3174. Each function has modifiers that determine exactly what the NetView DM function does.

The syntax for NetView DM functions is:

[label] VERb MODifier

The label is optional. If used, the label is from 1 to 8 characters. The first character of the label must be alphabetic.

The verb and modifiers are required. You enter either the entire verb and modifier or the first three letters of the verb and the first four letters of the modifier.

The following symbols are used to define the modifiers and should not be used when entering the actual NetView DM functions.

- [ ] Brackets show an optional parameter or a set of optional parameters, one of which can be selected.
- { } Braces show a set of parameters, one of which must be selected.
- ... Ellipses indicate that the preceding parameter can be repeated in this position.
- | “Or” sign indicates a parameter with a variable setting, such as YES|NO.

Default values exist for the parameters used with NetView DM functions. The parameter settings applicable to the 3174 are described with each NetView DM function in the following sections. See *IBM NetView Distribution Manager User's Guide*, SH19-6602, for information about parameter default values. An example of how you enter a function is given at the end of the descriptions of the parameters in each function.

---

## Accept Microcode

### Purpose

This function makes a data object permanent that was previously installed removably with an INSTALL microcode function. The canonical name in this function must be the same canonical name that was used in the INSTALL function. When the ACCEPT function is processed, the original production-level copy of the data object is erased by the receiving 3174.

- Use the ACCEPT function to make a data object installed in production removably, a nonremovable production-level data object.
- When data objects are installed with corequisite data objects, only one ACCEPT function is required to make all of the data objects permanent.
- Do not use the ACCEPT function for data objects installed On-Trial. To move On-Trial data objects to the production level, use the INSTALL function.
- Do not use the ACCEPT function for data objects that have been sent and are not yet installed, and do not use this function for back-level data objects.

### Format

```
[label] ACCEPT MICROCODE {NAME = name}  
                                GROUPID = Group name}
```

### Parameter Descriptions

#### NAME

Specifies the canonical name of the data object to be accepted as the nonremovable production-level data object.

#### GROUPID

Specifies the name for a group of microcode. Up to 8 alphanumeric characters. For example, if you have three RPQs that you want to accept, you can define a GROUPID for the RPQs. Otherwise, you will have to use three separate ACCEPT functions.

Specify either a canonical name or a groupid, but not both.

### Accept Microcode Example

```
ACCEpt MICRocode NAME=MCODE.3174.NA.FUNCTEC.A0401.CONTROL
```

When this function is processed, it tells the receiving 3174 to make microcode release A0401 the nonremovable production level and to delete the old production level of microcode. If the data object previously sent to this 3174 was new configure data, the 3174 would delete its copy of the old configure data.

---

## Activate Node

### Purpose

Causes the receiving 3174 to perform an initial microcode load (IML).

- Use the ACTIVATE function after INSTALL functions have successfully completed.
- Use the ACTIVATE function after REMOVE functions.
- Use the ACTIVATE function after installed data objects have been erased with the DELETE function.

### Format

[label] ACTivate NODE    [FORCE = Y[ES][N[O]]
---

### Parameter Description

*FORCE*

Specifies whether or not the receiving 3174 should perform this function or not if sessions are active.

YES — Perform this function regardless of any active sessions.

NO — Reject this function if sessions are active.

**Note:** Set this parameter to YES if you want to force the 3174 to IML whether user sessions are in progress or not.

### Activate Node Example

ACTivate NODE

When this function is processed, it tells the receiving 3174 to perform an Initial Microcode Load (IML).

This function can be used in conjunction with the install microcode function to make the receiving 3174 load the new microcode data it has just received.

---

## Delete Microcode

### Purpose

Use the DELETE function to remove data objects from a 3174 that are either no longer required, or must be deleted to allow future electronic updates.

The following categories of data objects can be deleted using the DELETE function:

- Any data objects that have been transmitted using the SEND function and have not yet been installed
- Production-level standalone data objects, such as downstream load microcode.

The following **production-level** data objects can never be deleted.

MCODE control  
MCUST configure  
MCUST PAM  
MCUST AEA configure  
MCUST KDU  
MCUST RPQ.

- You cannot delete On-Trial data objects. Use the INSTALL function to move a data object from On-Trial to production, or use the REMOVE function to erase an On-Trial data object.
- You cannot delete back-level data objects. Use the ACCEPT function.
- You cannot delete production-level data objects that are installed removably. Use the REMOVE function.

### Format

```
[label] DELEte MICRocode {NAME = name|
                        GROUPID = group name}
                        [,MATCHIND = ((n,L|H),.....)]
```

### Parameter Description

#### *NAME*

Specifies the canonical name of the data object to be deleted.

#### *GROUPID*

Specifies the name for a group of data objects. Up to 8 alphanumeric characters. For example, if you have three RPQs that you want to delete, you can define a GROUPID for the RPQs. Otherwise, you have to use three separate DELETE functions.

Specify either a canonical name or a groupid, not both.

#### *MATCHIND*

Specifies the list of matching indicators in the canonical name used by the receiving 3174 to determine the correct data object to delete. Be careful when you use the MATCHIND parameter to delete data objects. If you use the MATCHIND incorrectly, you could delete a data object you did not intend to delete.

n specifies the field of the canonical name that is replaced by a matching indicator:

- L for low
- H for high.

See “Using Partial Canonical Names” on page 6-5.

### **Delete Microcode Example**

```
DELeTe MICROcode NAME=MCODE.3174.NA.FUNCTEC.*.CONTROL  
MATCHIND=(5,L)
```

When this function is processed, it tells the receiving 3174 to delete the microcode identified by the NAME and the MATCHIND parameter.

The MATCHIND parameter is used so that the complete canonical name of the microcode targeted for deletion does not have to be entered as the NAME parameter. This parameter defaults to H if a partial canonical name is specified.



## Install Microcode

### Purpose

Gives the 3174 the ability to use the received data objects. The INSTALL function has several parameters that affect the way a data object is installed at the receiving 3174. Review them carefully before you use this function in your transmission plans.

After you have distributed data objects to your network site 3174s, the data objects can exist in three different states:

1. Production-level
2. Back-level
3. On-Trial.

You can have only two existing states of a given data object present in a 3174 at the same time. Another factor you need to consider when you use the INSTALL function is what type of disk media is available at the receiving 3174. See "CSCM Fixed Disk and Diskette Drive Search Order" on page 7-17 and "Installing Data Objects" on page 7-18 for details.

### Notes:

1. When you install new microcode releases, patches that were installed on the old microcode release will be removed, changed to back-level, or if installed On-Trial the patches will remain On-Trial. The installed state of the most current patches depends on the installed state of the microcode release that they belong to.
2. If a data object in a network site 3174 is installed as a removable data object, you **cannot** install a new version of that data object. Either use the ACCEPT function or the REMOVE function to change the state of the data object you want to update.

### Format

```
[label] INSTall MICRocode {NAME = name}
      GROUPID = group name}
      [,SEND = Y[ES]|N[O]]
      [,MATCHIND = ((n,L|H),.....)]
      [,REMOVABILITY = Y[ES]|D|N[O]]
      [,AUTOREMOVAL = Y[ES]|D|N[O]]
      [,PRETEST = Y[ES]|D|N[O]]
      [,POSTTEST = Y[ES]|D|N[O]]
      [,AUTOACCEPT = Y[ES]|N[O]]
      [,COREQUISITES = group name
      [,ACTUSE = T[RIAL]|P[RODUCTION]
      [,DESTRUCTION = A|N[O]]
      [,DELNAME = name
      [,DELMATCHIND = ((n,L|H),.....)]
```

## Parameter Description

### *NAME*

Specifies the canonical name of the data object to be installed.

**Note:** When the SEND parameter is equal to N (no), the complete canonical name must be specified because you are not sending the data object in the INSTALL function.

When the SEND parameter is equal to Y (yes), a partial canonical name can be specified because you are sending the data object in this INSTALL function. See “Using Partial Canonical Names” on page 6-5.

### *GROUPID*

Specifies the name for a group data objects. Up to 8 alphanumeric characters. For example, if you have three RPQs that you want to install, you can define a GROUPID for the RPQs. Otherwise, you will have to use three separate INSTALL functions.

**Note:** Specify either a canonical name or a groupid, but not both.

### *SEND*

Specifies whether or not the data object should be sent in this INSTALL function.

### *MATCHIND*

Specifies the list of matching indicators in the canonical name used by NetView DM and the 3174 to identify the correct data object to be sent. You can use a MATCHIND parameter only if the SEND parameter is set to Y (yes).

n specifies the field of the canonical name that is replaced by a matching indicator:

- L for low
- H for high.

See “Using Partial Canonical Names” on page 6-5.

### *REMOVABILITY*

Specifies whether the data object that is sent can be electronically removed or not removed after the 3174 receives the data object. Setting removability to Y (yes) allows the receiving 3174 to keep its original copy of the data object being changed, either as a backup copy or as a production-level copy.

With REMOVABILITY set to Y (yes) and ACTUSE set to T (On-Trial), the receiving 3174 keeps its original data object as the production-level version.

With REMOVABILITY set to Y (yes) and ACTUSE set to P (Production), the receiving 3174 keeps its original data object as a back-level version.

**Note:** If the receiving 3174 has the disk storage capability to keep back-level versions, it will do so. If not, the 3174 will delete the original data object identified by the canonical name in the DELNAME parameter. If you are not sure that the receiving 3174 has enough disk storage capacity, set the REMOVABILITY parameter to D (desired).

### *AUTOREMOVAL*

Specifies that the data object sent should be removed automatically if the installation fails or the pretest fails.

The setting of this parameter depends on the setting of the REMOVABILITY parameter:

REMOVABILITY = YES	AUTOREMOVAL = YES
REMOVABILITY = Desired	AUTOREMOVAL = Desired
REMOVABILITY = NO	AUTOREMOVAL = Do not specify

### *PRETEST*

Specifies whether the data objects should be tested prior to installation. When set to Y (yes), the receiving 3174 will check that the new data object is compatible with its existing data objects.

Set this parameter to Y (yes).

### *POSTTEST*

The 3174 does not support POSTTEST. Set this parameter to N (no).

### *AUTOACCEPT*

Specifies that the receiving 3174 makes the received data object permanent if the installation is successful. The receiving 3174 will also delete its original production-level data object when this parameter is set to Y (yes).

When REMOVABILITY is set to N (no), do not specify this parameter.

When ACTUSE is set to T (trial), set this parameter to N (no).

### *COREQUISITES*

Specifies a group of data objects that the receiving node should install as corequisites of the data object specified in the current INSTALL function. The corequisite data objects specified were sent to the receiving node using separate NetView DM SEND functions.

**Note:** When you are installing multiple RPQ data objects, there are limits to the number of RPQs that can be installed with one INSTALL function. See "MCODE.3174.NA.FEATURE.mclvl.RPQ.rpqnumbr" on page 6-9.

When you want to change the installed state of a group of corequisite data objects from on-trial to production, you have to specify only one of the data objects in the group. This causes the entire group of corequisite data objects to change their state from on-trial to production

A common use of an INSTALL function with corequisite data objects occurs when you distribute FUNCTEC MCODE: you also distribute MCUST CFG data as a corequisite data object. See "MCODE.3174.NA.FUNCTEC.mclvl.CONTROL" on page 6-7.

You **cannot** install data objects as corequisites if the data objects exist on separate diskettes or in separate subdirectories on a fixed disk. For example, if you need to install a new release of control microcode and a new release of DSL microcode for an AEA feature on the same network site 3174, you have to use one INSTALL function with the canonical name for the control microcode. Then you use a separate INSTALL function with the canonical name for the DSL microcode.

## *ACTUSE*

Specifies which type of activation allows the received data object to be accessed by the 3174.

When trial is specified for a data object, the data is accessed only through the use of a trial IML.

When this parameter is set to T (trial), REMOVABILITY must be set to Y (yes).

When this parameter is set to P (production) for the data object being installed, the data is accessed with a normal 3174 IML.

The advantage of installing data objects On-Trial is that the receiving 3174 can keep its original data objects as the production level. In the event of a problem with the On-Trial data object, the remote site operator can recover by pressing IML on the 3174. You can then remove the On-Trial data objects with the REMOVE function, make any necessary corrections to the data objects, and then use the INSTALL function again to send it back to the network 3174.

You should consider installing data objects On-Trial on your central site 3174 before you send them to network sites. This will allow you to verify that the data objects are valid and minimize the number of times you might have to remove and reinstall data objects in your network. You can then install your data objects as production-level data objects in your network site 3174s rather than On-Trial. This will save you time and reduce your CSCM network activity. Remember when you do install data objects On-Trial, you will have to move the data objects to production or remove them before you can do other updates on the same network site 3174.

**Important:** Do not install many different On-Trial data objects on the same 3174. Compatibility problems could arise between the production-level data objects that are accessed when a 3174 normal IML is performed.

You **cannot** install Patches or MAINTEC microcode On-Trial, unless you have a matching FUNCTEC data object for the patch or MAINTEC that is also installed On-Trial. For example, if you have a patch that belongs to a Control disk at microcode release A0401, you can install a patch On-Trial if the control microcode A0401 is installed On-Trial.

You can install Utility or Downstream Load microcode On-Trial, however the 3174 cannot access this microcode until it is changed from On-trial to production.

## *DESTRUCTION*

Specifies that existing data objects are overwritten if the receiving 3174 does not have enough disk storage to receive the new data object and keep a copy of its original data object.

- A for allowed
- N for no

**Note:** Setting this parameter to A (allowed) is valid only when the SEND parameter is set to Y (yes).

## *DELNAME*

Specifies the canonical name of the data object to be deleted.

**Note:** This parameter is used when the DESTRUCTION parameter is set to A (allowed).

### **DELMATCHIND**

Specifies the list of matching indicators to be used to locate the correct data object to be deleted.

n specifies the field of the canonical name that is replaced by a matching indicator:

- L for low
- H for high.

See "Using Partial Canonical Names" on page 6-5.

If this parameter is not used, a complete canonical name must be used in the DELNAME parameter.

### **Install Microcode Example**

```
Install Microcode Name=MCODE.3174.NA.FUNCTEC.*.CONTROL,  
Send=Y,  
Matchind=(5,H),  
Removability=D,  
Pretest=Y,  
Posttest=N
```

When this function is processed, it tells the receiving 3174 to install the new data object identified by the partial canonical name and MATCHIND parameter. The 3174 should make this a removable change. The receiving 3174 has to have a fixed disk installed to accommodate this part of the function. Otherwise, the receiving 3174 must overwrite its old Control diskette microcode with the new Control diskette microcode. The receiving 3174 will automatically remove the new microcode if the installation is not successful. Pretesting is done to check that the new microcode being installed is compatible with the existing microcode. The 3174 does not support POSTTEST, so this parameter is set to N (no).

---

## Remove Microcode

### Purpose

Removes a data object from the receiving 3174 if the data object is installed in production removably, or On-Trial. If a back-level version of the data object is present, the receiving 3174 will use that version as its production level.

If a data object has corequisite data objects, using the REMOVE function causes that data object and its corequisites to be removed.

You **cannot** remove data objects that have been sent but are not yet installed. Use the DELETE function.

You **cannot** remove back-level data objects. Use the ACCEPT function.

### Format

```
[label] REMove MICRoCode {NAME = name|
                        GROUPID = group name}
                        [,POSTTEST = Y[ES]|D|N[O]]
```

### Parameter Descriptions

#### NAME

Specifies the canonical name of the data object to be removed.

#### GROUPID

Specifies the name for a group of data objects. Up to 8 alphanumeric characters. For example, if you have three RPQs that you want to remove, you can define a GROUPID for the RPQs. Otherwise, you will have to use three separate REMOVE functions.

**Note:** Specify either a canonical name or a groupid, but not both.

#### POSTTEST

POSTTEST is not supported for the 3174. Set this parameter to N (no).

### Remove Microcode Example

```
Remove microcode Name=MCODE.3174.NA.FUNCTEC.A0400.CONTROL,
Posttest=N
```

When this function is processed, the receiving 3174 will remove the microcode specified by the canonical name. POSTTEST is not supported by the 3174 and is set to N (no).

## Retrieve Microcode

### Purpose

The RETRIEVE MICROCODE function causes the 3174 to return a copy of the requested data object to the host application for storage in the NetView DM resource repository. For **central site 3174s**, data objects are retrieved from:

Data Object	Source
MCUST CFG MCUST PAM MCUST AEA	Library diskette or LIB00001 subdirectory on a fixed disk. (See Note 1.)
MCUST KDU MCUST RPQ	Control diskette or CTL00001 subdirectory on a fixed disk. (See note 2.)
MCODE Control (FUNTEC, FEATURE, MAINTEC, PATCH)	Control diskette or CTL00001 subdirectory on a fixed disk. (See note 2.)
MCODE Utility (FUNTEC, FEATURE, PATCH)	Utility diskette or UTL00001 subdirectory on a fixed disk.
MCODE DSL (FUNCTEC, PATCH)	DSL diskette or DSL00001 subdirectory on a fixed disk.

### Notes:

1. If the MCUST data objects are not found on the Library disk, CSCM will search any installed Control disks for the data object.
2. Since you may have a need to retrieve different levels of control microcode, KDU data, or RPQ data, we recommend you use Control diskettes as the source media for these data objects. For this reason, do not create a CTL subdirectory on your fixed disks in your central site 3174.
3. When you are using the central site 3174 in an LU 6.2 session with NetView DM we recommend that you IML the 3174 with the Control diskette in diskette drive 2 before you establish the session. You can then use diskette drive 1 to remove and install different diskettes that may be required for execution of your transmission plans. For example, you may have to insert a different Control diskette into diskette drive 1 that will be the source diskette for a new microcode release level, such as A5.0, or a unique version of KDU data.  
**Important:** Always keep the Control diskette you used to IML your central site 3174 in its original diskette drive.
4. For NetView DM to access a library member, the CFG data type of the library member must be configured to support CSCM. Otherwise, NetView DM will not be able to access any of the data objects that make up the library member.

For **network site 3174s**, data objects are retrieved from:

Data Object	Source
MCUST CFG MCUST PAM MCUST AEA MCUST KDU MCUST RPQ MCODE Control (FUNTEC, FEATURE, MAINTEC, PATCH)	Control diskette or CTL00001 subdirectory on a fixed disk.
MCODE Utility (FUNTEC, FEATURE, PATCH)	Utility diskette or UTL00001 subdirectory on a fixed disk.
MCODE DSL (FUNCTEC, PATCH) MCODE Patch	DSL diskette or DSL00001 subdirectory on a fixed disk.

When you are distributing data objects to your network site 3174s, use this function to get the data *from* your central site 3174 to the NetView DM resource repository. Then use INSTALL with SEND, or SEND, to transfer the data *from* the repository to the network site 3174s.

Also use the RETRIEVE function when you need to get a copy of a data object from a network site 3174.

## Format

```
[label] RETrieve MICRocode {NAME = name|
                               GROUPID = group name}
                               [,MATCHIND = ((n,L|H),.....)]
```

## Parameter Descriptions

### NAME

Specifies the canonical name of the data object to be retrieved.

### GROUPID

Specifies the name for a group of data objects. Up to 8 alphanumeric characters. For example, if you have three RPQs that you want to retrieve, you can define a GROUPID for the RPQs. Otherwise, you will have to use three separate RETRIEVE functions.

**Note:** Specify either a canonical name or a groupid, but not both.

### MATCHIND

Specifies the list of matching indicators used by the receiving node to retrieve the correct data object.

When you are retrieving data objects, you can use the MATCHIND parameter in all of the fields of the canonical name that you are allowed to replace with a MATCHIND. Since you are obtaining only a copy of the data object, if you should retrieve a data object you did not want, you would need only to reissue a RETRIEVE function with the correct canonical name. When a target 3174 is



processing a RETRIEVE function, it transmits a copy of the requested data objects and keeps the original copy unchanged.

n specifies the field of the canonical name that is replaced by a matching indicator:

- L for low
- H for high.

See "Using Partial Canonical Names" on page 6-5.

### **Retrieve Microcode Example**

```
Retrieve microcode Name=MCODE.3174.NA.FUNCTEC.*.CONTROL,  
Matchind=(5,H)
```

When this function is processed, the receiving node will send a copy of the control microcode specified by the partial canonical name and MATCHIND parameter back to the NetView DM resource repository.

---

## Send Microcode

### Purpose

When you need to install a data object that has a corequisite or multiple corequisite data objects, use the SEND function to send each corequisite data object from the NetView DM resource repository to the central site 3174 or to a network site 3174. Then use the INSTALL function to install all of the data objects at the same time.

You **cannot** use a SEND function of a particular data type followed by another SEND function of the same data type to the same network site 3174 unless the destruction parameter of the previously sent data type was set to allowed.

### Format

```
[label] SEND MICRocode {NAME = name|
                        GROUPID = group name}
                        [,MATCHIND = ((n,L|H),.....)]
                        [,DESTRUCTION = A|N|O]]
                        [,DELNAME = name
                        [,DELMATCHIND = ((n,L|H),.....)]
```

### Parameter Descriptions

#### NAME

Specifies the canonical name of the data object to be sent.

#### GROUPID

Specifies the name for a group of data objects. Up to 8 alphanumeric characters. For example, if you have three RPQs that you want to send, you can define a GROUPID for the RPQs. Otherwise, you will have to use three separate SEND functions.

**Note:** Specify either a canonical name or a groupid, but not both.

#### MATCHIND

Specifies the list of matching indicators used by the node to locate the correct data object to be sent.

n specifies the field of the canonical name that is replaced by a matching indicator:

- L for low
- H for high.

See "Using Partial Canonical Names" on page 6-5.

If this parameter is not used, a complete canonical name must be used in the NAME parameter.

### *DESTRUCTION*

Specifies that a previously sent data object of the same type will be erased. The data object to be erased must still be in the SEND state. That is, the INSTALL function has not yet been processed for the particular data object you are replacing.

- A for allowed
- N for no

### *DELNAME*

Specifies the canonical name of the data object to be deleted.

**Note:** This parameter is used when the DESTRUCTION parameter is set to A (allowed).

### *DELMATCHIND*

Specifies the list of matching indicators to be used to locate the correct data object to be deleted.

n specifies the field of the canonical name that is replaced by a matching indicator:

- L for low
- H for high.

See "Using Partial Canonical Names" on page 6-5.

**Note:** When this parameter is used, the DELNAME parameter must be used and the DESTRUCTION parameter must be set to A (allowed).

### **Send Microcode Example**

```
Send microcode Name=MCODE.3174.NA.FUNCTEC.*.CONTROL,  
Matchind=(5,L),  
Destruction=A,  
Delname=MCODE.3174.NA.FUNCTEC.*.CONTROL,  
Delmatchind=(5,L)
```

When this function is processed, a copy of the microcode specified by the canonical name and MATCHIND parameter will be sent. The receiving 3174 will delete the microcode specified in the DELNAME and DELMATCHIND parameters.

## CSCM Fixed Disk and Diskette Drive Search Order

The 3174 media is managed by the 3174 CSCM function, which is responsible for deciding whether a data object (microcode or customizing data) is placed on the fixed disk(s) or diskette drive(s). The change installation ground rules for drive selection are described below.

CSCM microcode first searches for the presence of fixed disk 1 (drive 03), and then for fixed disk 2 (drive 04). Installation is attempted to the first fixed disk found that has a subdirectory that matches the data type being sent. A fixed disk that is present but inoperative will cause the installation to be aborted.

For example, if a data object is sent from NetView DM with DSL specified in the canonical name, fixed disk 1 and then fixed disk 2 are searched for the DSL subdirectory. When the DSL subdirectory is found, the new DSL microcode is written on that fixed disk. Table 7-1 shows the types of changes that can be distributed and the diskette or fixed disk subdirectory required for the change to be installed.

If no fixed disks are present, or if the required subdirectory is not found, then diskette drive 01 and diskette drive 02 are searched to determine if they are present and if they have the correct diskette installed. Not present, having the wrong diskette installed, or having an unidentifiable diskette installed will cause the search order to continue. Drive failures that occur after the installation has started will cause the installation to be aborted.

**Note:** The IML drive used to make the controller operational does not affect this selection. The IML may have occurred from a diskette drive, and the installation may be to a fixed disk.

Table 7-1. Fixed Disk Subdirectories or Diskettes		
Data Object Type	Subdirectory	Diskette
Control Microcode	CTL00001	Control
Utility Microcode	UTL00001	Utility
Configure data	CTL00001 or LIB00001	Control or Library
AEA data	CTL00001 or LIB00001	Control or Library
Printer Authorization Matrix data	CTL00001 or LIB00001	Control or Library
Patches	CTL00001, UTL00001, DSL00001	Control, Utility, Down- stream Load
Maintenance EC	CTL00001	Control
Request for Price Quotation (RPQ)	CTL00001 or UTL00001	Control or Utility
DSL	DSL00001	Downstream Load
Keyboard Definition Utility	CTL00001	Control

---

## Installing Data Objects

Data objects can be installed in target 3174s in different ways depending on the disk media available in the target 3174 and the usage of the parameters of the NetView DM functions in your transmission plans.

### Installing Data Objects with Backup (Diskette Only)

The following data objects can be installed on diskette-only 3174s while maintaining the original data object on the diskette as a backup:

```
MCUST.3174.NA.netwname.luname.CFG.librname.vernum
MCUST.3174.NA.netwname.luname.PAM.librname.vernum
MCUST.3174.NA.NA.NA.RPQ.rpqident
MCUST.3174.NA.NA.NA.KDU.kduident
MCUST.3174.NA.netwname.luname.AEA.librname.vernum
```

Back-level data objects are accessed through the use of the manual Alt 1 IML (selection 43) at the 3174 operator's panel. Electronic IML (ACTIVATE NODE) will cause the receiving 3174 to load any On-Trial data objects that are present. If an On-Trial data object is not present, the production level will be loaded. The only way to electronically IML back-level data objects is to first remove any On-Trial production-level data objects with the REMOVE function. This will cause the receiving 3174 to move its back-level data objects to a production-level state.

The following data objects **cannot** be installed on diskette-only 3174s while maintaining the original data object. When these data objects are distributed to a diskette-only 3174, the new data object is written over the old data object. Be aware that should the session fail between NetView DM and the target 3174 while the 3174 is receiving a data object, the result could be a 3174 that can no longer be IMLed. In that event, the backup diskette for that 3174 will have to be used.

```
MCODE.3174.NA.FUNCTEC.mclvl.CONTROL
MCODE.3174.NA.FUNCTEC.mclvl.UTILITY
MCODE.3174.NA.FEATURE.mclvl.CONTROL.rpqnumbr
MCODE.3174.NA.FEATURE.mclvl.UTILITY.rpqnumbr
MCODE.3174.NA.SUFFIXEC.mclvl.CONTROL
MCODE.3174.NA.SUFFIXEC.mclvl.UTILITY
MCODE.3174.NA.PATCH.patchno
MCODE.3174.NA.MAINTEC.mclvl.CONTROL.jdate
MCODE.3174.NA.FEATURE.mclvl.RPQ.rpqnumbr
MCODE.3174.NA.FUNCTEC.mrnlevel.DSL.nnnn
```

## Installing Data Objects on Trial

Installing a change On-Trial means the changed data object can only be accessed by the 3174 using the manual Alt 1 selection 43 IML, or by the NetView DM function ACTIVATE. In the event that a problem occurs when the new data object is accessed in the 3174 IML, the 3174 operator can recover from the problem by pressing IML on the 3174 to access its production-level microcode and customization data.

The central site planner can specify an On-Trial installation of a data object by setting the ACTUSE parameter of the INSTALL function to T for trial.

When you install changes On Trial, do not leave the changes On-Trial for a long period of time. As soon as is practical, move the On-Trial changes to the production state with the INSTALL function.

Do not mix too many On-Trial changes; compatibility problems could occur between the production-level data objects when a manual IML is performed at the 3174 operator's panel.

---

## 3174 IML Selections

Since CSCM provides the ability to have more than one level of a data object, such as configure data, four manual IML selections are available to perform an IML:

### Normal IML

Alt 1 using function selection 41

Alt 1 using function selection 42

Alt 1 using function selection 43.

### Normal IML

A normal IML loads the production-level data objects from the first fixed disk or diskette drive that has control microcode installed that can be IMLed. The drive search order is fixed disk 1, fixed disk 2, diskette drive 1, then diskette drive 2.

### Alt 1 selection 41

This IML loads the production-level data objects from the fixed disk or diskette drive you specify when you perform the Alt 1 IML procedure.

### Alt 1 selection 42

This IML loads the back-level data objects from the fixed disk or diskette drive you specify when you perform the Alt 1 IML procedure.

If a back-level version does not exist, the production version will be loaded.

### Alt 1 selection 43

This IML loads on-trial-level data objects from the fixed disk or diskette drive you specify when you perform the Alt 1 IML procedure.

If a trial level does not exist, the production level will be loaded.



---

## Chapter 8. NetView DM Example Transmission Plans

The following NetView DM transmission plans are examples of how to use NetView DM to retrieve and distribute 3174 data objects. The canonical names used in the examples have to be defined in each network. SNA/MS provides the writer of the transmission plan various options to implement change management on the 3174.

The examples have canonical names with fields that are lowercase and fields that are uppercase. The lowercase fields are user defined through 3174 customizing and central site customizing utilities. The uppercase fields are default values controlled by the 3174 microcode. The following list explains the lowercase fields in the transmission plan examples.

<b>cs3174</b>	The central site 3174
<b>cltsft</b>	A network site 3174 with diskette(s)
<b>clthdf</b>	A network site 3174 with fixed disk(s)
<b>stfnet</b>	The netid (as an example)
<b>vercha-verchf</b>	Versions on the central site library of MCUST data objects
<b>cslibh</b>	A member name on the central site 3174 library (used to define a fixed disk 3174 via MCUST data objects)
<b>cslibs</b>	A member name on the central site 3174 library (used to define a diskette-only 3174 via MCUST data objects)
<b>kdu001</b>	A KDU data object
<b>rpq001-rpq004</b>	RPQ data objects
<b>newec</b>	A new microcode release level of downstream load microcode.



---

## Sample JCL Statement

This is an example of a NetView DM transmission plan inside a JCL statement.

```
//PLT03 JOB COIL,MSGLEVEL=(1,1),MSGCLASS=X
/*ROUTE PRINT RALVM30.NAVIGNDM
//JOB LIB DD DSN=NDMDRV1.BASE.LOADLIB,DISP=SHR
//SUBMIT1 EXEC NDMSUB,USERID=NAVNDM,PWORD=NDM1
/* SETUP OF NODES, NAMING OF PLAN AND PHASE, SPECIFY FUNCTIONS
//SYSIN DD *
      DEF PLAN NAME=PUB34,                                X
          AUTOSUB=YES                                     X
      DEF PHASE NAME=PUBSA034,                             X
          STATUS=RELEASE,                                 X
          NODE=ctlstf
INSTALL MICROCODE NAME=MCODE.3174.NA.FUNCTEC.A0500.CONTROL, X
          SEND=YES,                                     X
          DESTRUCTION=ALLOWED,                         X
          REMOVABILITY=NO,                              X
          PRETEST=YES,                                  X
          POSTTEST=NO,                                  X
          ACTUSE=PRODUCTION
      END
/*
```

## Retrieve Data Objects from a Central Site 3174

Figure 8-1 and Figure 8-2 on page 8-5 contain examples of NetView DM transmission plans with multiple phases. These examples are RETRIEVE operations of 3174 data objects from a central site 3174 to the NetView DM resource repository.

These plans assume the following conditions for the central site 3174:

A fixed disk is installed with all the required library members stored in subdirectory LIB00001.

The utility microcode is stored in subdirectory UTL00001.

The control microcode is stored in subdirectory CTL00001.

The DSL microcode is stored in subdirectory DSL00001.

If the 3174 data objects were not stored as shown, this plan would have to be multiple plans that allow the coordination of diskette changes with the execution of each plan.

Your Retrieve transmission plans can be created using this plan as a model.

```
DEF PLAN NAME=RET01,                                     X
  AUTOSUB=YES
Retrieve MCAST data objects for a 3174 node ID =ctlhdf from the
central site library to the NetView DM resource repository.
DEF PHASE NAME=RETR01,                                   X
  STATUS=RELEASE,                                       X
  NODE=cs3174
RETRIEVE MICROCODE NAME=MCAST.3174.NA.stfnet.ctlhdf.PAM.cslibh.vercha
DEF PHASE NAME=RETR02,                                   X
  STATUS=RELEASE,                                       X
  NODE=cs3174
RETRIEVE MICROCODE NAME=MCAST.3174.NA.stfnet.ctlhdf.CFG.cslibh.verchb
DEF PHASE NAME=RETR03,                                   X
  STATUS=RELEASE,                                       X
  NODE=cs3174
RETRIEVE MICROCODE NAME=MCAST.3174.NA.stfnet.ctlhdf.AEA.cslibh.verchc
Retrieve MCAST data objects for 3174 node id ctlsft from the
central site library to the NetView DM resource repository.
DEF PHASE NAME=RETR04,                                   X
  STATUS=RELEASE,                                       X
  NODE=cs3174
RETRIEVE MICROCODE NAME=MCAST.3174.NA.stfnet.ctlsft.PAM.cslibs.verchd
DEF PHASE NAME=RETR05,                                   X
  STATUS=RELEASE,                                       X
  NODE=cs3174
RETRIEVE MICROCODE NAME=MCAST.3174.NA.stfnet.ctlsft.CFG.cslibs.verche
```

Figure 8-1 (Part 1 of 2). Example 1—Retrieve Transmission Plan

```

DEF PHASE NAME=RETR06,
STATUS=RELEASE,
NODE=cs3174
RETRIEVE MICROCODE NAME=MCUST.3174.NA.stfnet.ct1sft.AEA.cslibs.verchf
X
X

Retrieve the MCUST data objects KDU and RPQ from the CTL00001
subdirectory in the central site 3174 to the NetView DM resource
repository.

DEF PHASE NAME=RETR07,
STATUS=RELEASE,
NODE=cs3174
RETRIEVE MICROCODE NAME=MCUST.3174.NA.NA.NA.KDU.kdu001
X
X

DEF PHASE NAME=RETR08,
STATUS=RELEASE,
NODE=cs3174
RETRIEVE MICROCODE NAME=MCUST.3174.NA.NA.NA.RPQ.rpq001
X
X

Retrieve the MCODE from the DSL00001, CTL00001, and UTL00001
subdirectories in the central site 3174 to the NetView DM resource
repository.

DEF PHASE NAME=RETR09,
STATUS=RELEASE,
NODE=cs3174
RETRIEVE MICROCODE NAME=MCODE.3174.NA.FUNCTEC.NEWEC.DSL.3290
X
X

DEF PHASE NAME=RETR10,
STATUS=RELEASE,
NODE=cs3174
RETRIEVE MICROCODE NAME=MCODE.3174.NA.FUNCTEC.A0500.CONTROL
X
X

DEF PHASE NAME=RETR11,
STATUS=RELEASE,
NODE=cs3174
RETRIEVE MICROCODE NAME=MCODE.3174.NA.FUNCTEC.A0500.UTILITY
X
X

DEF PHASE NAME=RETR12,
STATUS=RELEASE,
NODE=cs3174
RETRIEVE MICROCODE NAME=MCODE.3174.NA.PATCH.zc00001
X
X

```

Figure 8-1 (Part 2 of 2). Example 1—Retrieve Transmission Plan

```

DEF PLAN NAME=GET01,
AUTOSUB=YES
X

Retrieve the MCUST data objects from the CTL00001 subdirectory
in the central site 3174 to the NetView DM resource repository.

DEF PHASE NAME=GETR01,
STATUS=RELEASE,
NODE=cs3174
X
X
RETRIEVE MICROCODE NAME=MCUST.3174.NA.stfnet.cs3174.PAM.LOCALCHG.100001

DEF PHASE NAME=GETR02,
STATUS=RELEASE,
NODE=cs3174
X
X
RETRIEVE MICROCODE NAME=MCUST.3174.NA.stfnet.cs3174.CFG.LOCALCHG.100001

DEF PHASE NAME=GETR03,
STATUS=RELEASE,
NODE=cs3174
X
X
RETRIEVE MICROCODE NAME=MCUST.3174.NA.stfnet.cs3174.AEA.LOCALCHG.100001

```

Figure 8-2. Example 2—Retrieve Transmission Plan

## Install Data Objects in a Network Site 3174

Figure 8-3 contains an example of a NetView DM transmission plan to distribute 3174 MCODE and MCUST data objects from the NetView DM resource repository to a network site 3174.

Each data object is sent and installed with REMOVABILITY=DESIRED. The network site 3174 will keep its original data objects in a back-level state. PRETEST is set to YES to do a compatibility check on the existing data objects in the receiving 3174.

This plan assumes the following conditions for the network site 3174:

The 3174 has a fixed disk.

Microcode Release A0400 is installed and properly customized.

```
Send and install MCUST data objects PAM, CFG and AEA.

      DEF PLAN NAME=INS01,                                X
          AUTOSUB=YES

      DEF PHASE NAME=INSH001,                              X
          STATUS=RELEASE,                                X
          NODE=ctlhdf

INSTALL MICROCODE NAME=MCUST.3174.NA.stfnet.ctlhdf.PAM.cslibh.vercha, X
          SEND=YES,                                     X
          REMOVABILITY=DESIRED,                         X
          AUTOREMOVAL=DESIRED,                          X
          AUTOACCEPT=NO,                                X
          PRETEST=YES,                                  X
          POSTTEST=NO,                                  X
          ACTUSE=PRODUCTION

      DEF PHASE NAME=INSH02,                              X
          STATUS=RELEASE,                                X
          NODE=ctlhdf

INSTALL MICROCODE NAME=MCUST.3174.NA.stfnet.ctlhdf.CFG.cslibh.verchb, X
          SEND=YES,                                     X
          REMOVABILITY=DESIRED,                         X
          AUTOREMOVAL=DESIRED,                          X
          AUTOACCEPT=NO,                                X
          PRETEST=YES,                                  X
          POSTTEST=NO,                                  X
          ACTUSE=PRODUCTION

      DEF PHASE NAME=INSH03,                              X
          STATUS=RELEASE,                                X
          NODE=ctlhdf

INSTALL MICROCODE NAME=MCUST.3174.NA.stfnet.ctlhdf.AEA.cslibh.verchc, X
          SEND=YES,                                     X
          REMOVABILITY=DESIRED,                         X
          AUTOREMOVAL=DESIRED,                          X
          AUTOACCEPT=NO,                                X
          PRETEST=YES,                                  X
          POSTTEST=NO,                                  X
          ACTUSE=PRODUCTION
```

Figure 8-3 (Part 1 of 2). Example 3—Install Transmission Plan

<b>Send and install MCODE Control A0500 in production.</b>	
DEF PHASE NAME=INSHA027,	X
STATUS=RELEASE,	X
NODE=ct1hdf	
INSTALL MICROCODE NAME=MCODE.3174.NA.FUNCTEC.A0500.CONTROL,	X
SEND=YES,	X
REMOVABILITY=DESIRED,	X
AUTOREMOVAL=DESIRED,	X
AUTOACCEPT=NO,	X
PRETEST=YES,	X
POSTTEST=NO,	X
ACTUSE=PRODUCTION	
<b>Send and install MCODE Utility A0500 in production.</b>	
DEF PHASE NAME=INSHA028,	X
STATUS=RELEASE,	X
NODE=ct1hdf	
INSTALL MICROCODE NAME=MCODE.3174.NA.FUNCTEC.A0500.UTILITY,	X
SEND=YES,	X
REMOVABILITY=DESIRED,	X
AUTOREMOVAL=DESIRED,	X
AUTOACCEPT=NO,	X
PRETEST=YES,	X
POSTTEST=NO,	X
ACTUSE=PRODUCTION	
<b>Send and install MCODE DSL for device type 3290 in production.</b>	
DEF PHASE NAME=INSHA026,	X
STATUS=RELEASE,	X
NODE=ct1hdf	
INSTALL MICROCODE NAME=MCODE.3174.NA.FUNCTEC.newec.DSL.3290,	X
SEND=YES,	X
REMOVABILITY=DESIRED,	X
AUTOREMOVAL=DESIRED,	X
AUTOACCEPT=NO,	X
PRETEST=YES,	X
POSTTEST=NO,	X
ACTUSE=PRODUCTION	
<b>Send and install MCODE KDU.</b>	
DEF PHASE NAME=INSHA023,	X
STATUS=RELEASE,	X
NODE=ct1hdf	
INSTALL MICROCODE NAME=MCUST.3174.NA.NA.NA.KDU.kdu001,	X
SEND=YES,	X
REMOVABILITY=DESIRED,	X
AUTOREMOVAL=DESIRED,	X
AUTOACCEPT=NO,	X
PRETEST=YES,	X
POSTTEST=NO,	X
ACTUSE=PRODUCTION	

Figure 8-3 (Part 2 of 2). Example 3—Install Transmission Plan

## Distribution to a Network Site 3174 (Diskette Only)

Figure 8-4 shows an example of a NetView DM transmission plan to distribute 3174 MCODE and MCODE data objects from the NetView DM resource repository to a diskette-only 3174.

This plan assumes the following conditions for the network site 3174:

The 3174 has two diskette drives. A Control diskette is installed in one drive and a Downstream Load diskette is installed in the other drive.

Microcode Release A0400 is installed and properly customized.

DEF PLAN NAME=INSH11,	X
AUTOSUB=YES	
Send and install MCODE data objects PAM, CFG and AEA.	
DEF PHASE NAME=INSH11,	X
STATUS=RELEASE,	X
NODE=ctlstft	
INSTALL MICROCODE NAME=MCUST.3174.NA.stfnet.ctlstft.PAM.cslibs.verchd,	X
SEND=YES,	X
REMOVABILITY=DESIRED,	X
AUTOREMOVAL=DESIRED,	X
AUTOACCEPT=NO,	X
PRETEST=YES,	X
POSTTEST=NO,	X
ACTUSE=PRODUCTION	
DEF PHASE NAME=INSH12,	X
STATUS=RELEASE,	X
NODE=ctlstft	
INSTALL MICROCODE NAME=MCUST.3174.NA.stfnet.ctlstft.CFG.cslibs.verche,	X
SEND=YES,	X
REMOVABILITY=DESIRED,	X
AUTOREMOVAL=DESIRED,	X
AUTOACCEPT=NO,	X
PRETEST=YES,	X
POSTTEST=NO,	X
ACTUSE=PRODUCTION	
DEF PHASE NAME=INSH13,	X
STATUS=RELEASE,	X
NODE=ctlstft	
RETRIEVE MICROCODE NAME=MCUST.3174.NA.stfnet.ctlstft.AEA.cslibs.verchf,	X
SEND=YES,	X
REMOVABILITY=DESIRED,	X
AUTOREMOVAL=DESIRED,	X
AUTOACCEPT=NO,	X
PRETEST=YES,	X
POSTTEST=NO,	X
ACTUSE=PRODUCTION	

Figure 8-4 (Part 1 of 2). Example 4—Install Transmission Plan

```

Send and install MCUST KDU.
      DEF PHASE NAME=INSH14,
      STATUS=RELEASE,
      NODE=ctlsoft
INSTALL MICROCODE NAME=MCUST.3174.NA.NA.NA.KDU.kdu001,
      SEND=YES,
      REMOVABILITY=DESIRED,
      AUTOREMOVAL=DESIRED,
      AUTOACCEPT=NO,
      PRETEST=YES,
      POSTTEST=NO,
      ACTUSE=PRODUCTION

Send and install MCODE Control A0500 with destruction allowed
in production.
      DEF PHASE NAME=INSH15,
      STATUS=RELEASE,
      NODE=ctlsoft
INSTALL MICROCODE NAME=MCODE.3174.NA.FUNCTEC.A0500.CONTROL,
      SEND=YES,
      DESTRUCTION=ALLOWED,
      REMOVABILITY=NO,
      PRETEST=YES,
      POSTTEST=NO,
      ACTUSE=PRODUCTION

Send and install MCODE DSL newec device type 3290.
NEWEC represents the release level of the DSL microcode.

      DEF PHASE NAME=INSH17,
      STATUS=RELEASE,
      NODE=ctlsoft
INSTALL MICROCODE NAME=MCODE.3174.NA.FUNCTEC.NEWEC.DSL.3290,
      SEND=YES,
      DESTRUCTION=ALLOWED,
      REMOVABILITY=NO,
      PRETEST=YES,
      POSTTEST=NO,
      ACTUSE=PRODUCTION

```

Figure 8-4 (Part 2 of 2). Example 4—Install Transmission Plan



## Accept Distributions from NetView DM (Fixed Disk)

Figure 8-5 shows an example of a NetView DM transmission plan containing accepts of prior MCODE and MCUST distributions to a network site 3174. The ACCEPT functions delete the back-level data objects previously installed removably. The ACCEPT function is used after the back-level data objects are no longer required.

This plan assumes the following conditions for the network site 3174:

The 3174 has a fixed disk.

Microcode Release A0400 is installed and properly customized.

DEF PLAN NAME=ACEPR01, AUTOSUB=YES	X
Accept MCUST data objects PAM, CFG, and AEA.	
DEF PHASE NAME=ACEPR001, STATUS=RELEASE, NODE=ctlhdf	X X
ACCEPT MICROCODE NAME=MCUST.3174.NA.stfnct.ctlhdf.PAM.cslibh.vercha	
DEF PHASE NAME=ACEPR002, STATUS=RELEASE, NODE=ctlhdf	X X
ACCEPT MICROCODE NAME=MCUST.3174.NA.stfnct.ctlhdf.CFG.cslibh.verchb	
DEF PHASE NAME=ACEPR003, STATUS=RELEASE, NODE=ctlhdf	X X
ACCEPT MICROCODE NAME=MCUST.3174.NA.stfnct.ctlhdf.AEA.cslibh.verchc	
Accept MCODE Control, Utility, and DSL.	
DEF PHASE NAME=ACEPR004, STATUS=RELEASE, NODE=ctlhdf	X X
ACCEPT MICROCODE NAME=MCODE.3174.NA.FUNCTEC.A0500.CONTROL	
DEF PHASE NAME=ACEPR005, STATUS=RELEASE, NODE=ctlhdf	X X
ACCEPT MICROCODE NAME=MCODE.3174.NA.FUNCTEC.A0500.UTILITY	
DEF PHASE NAME=ACEPR006, STATUS=RELEASE, NODE=ctlhdf	X X
ACCEPT MICROCODE NAME=MCODE.3174.NA.FUNCTEC.NEWEC.DSL.3290	
Accept MCUST KDU.	
DEF PHASE NAME=ACEPR007, STATUS=RELEASE, NODE=ctlhdf	X X
ACCEPT MICROCODE NAME=MCUST.3174.NA.NA.NA.KDU.kdu001	

Figure 8-5. Example 5—Install Transmission Plan

## RPQ Corequisite Distribution

Figure 8-6 shows an example of a NetView DM transmission plan to distribute 3174 RPQ MCODE and MCODE data objects from the NetView DM resource repository to a network site 3174.

This plan shows a distribution with corequisite data objects.

```
Define a group of CTL data objects to send via group definition.
      DEF GROUP NAME=RPQSET,                                X
        RESOURCE=MCODE.3174.NA.FEATURE.A0500.RPQ.rpqn01,   X
          MCODE.3174.NA.FEATURE.A0500.RPQ.rpqn02,         X
          MCODE.3174.NA.FEATURE.A0500.RPQ.rpqn03
      DEF PLAN NAME=PHASE0,                                  X
        AUTOSUB=YES
      DEF PHASE NAME=PHASE1,                                  X
        NODE=ctlstft
SEND MICROCODE GROUPID=RPQSET

      DEF PHASE NAME=PHASE2,                                  X
        NODE=ctlstft
INSTALL MICROCODE NAME=MCUST.3174.FEATURE.A0500.NA.RPQ.rpqn04, X
        SEND=YES,                                           X
        COREQUISITES=RPQSET,                                X
        REMOVABILITY=NO,                                    X
        ACTUSE=PRODUCTION,                                  X
        PRETEST=Yes,                                        X
        POSTTEST=NO
```

Figure 8-6. Example 6—Install Transmission Plan

## Retrieve a Local Change from a Network Site 3174

Figure 8-7 shows an example of a NetView DM transmission plan to retrieve the customization data from a network site 3174. This data is being retrieved because the configuration data was changed using the local 3174 customizing utilities. This is known as a local change.

**Note:** Local changes in CSCM-supported networks are discouraged. Local changes jeopardize the integrity of the network and defeat the tracking functions of NetView DM distributions.

```
      DEF PLAN NAME=RETL01,                                  X
        AUTOSUB=YES
      DEF PHASE NAME=RETL10,                                  X
        STATUS=RELEASE,                                     X
        NODE=ctlstft
RETRIEVE MICROCODE NAME=MCUST.3174.NA.stfnet.ctlstft.CFG.LOCALCHG.*, X
        MATCHIND=(8,H)
```

Figure 8-7. Example 7—Retrieve Local Change Transmission Plan

## Retrieve and Install a Suffixec (Fixed Disk)

Figure 8-8 shows an example of a NetView DM transmission plan to retrieve the SUFFIXEC Control disk data object from the central site 3174 and install it in a network site 3174.

This transmission plan assumes the network site 3174 has subdirectory CTL00001 installed on a fixed disk.

DEF PLAN NAME=SUFFX01, AUTOSUB=YES	X
Retrieve an MCODE SUFFIXEC from the CTL00001 subdirectory in the central site 3174 to the NetView DM resource repository.	
DEF PHASE NAME=RETRX7, STATUS=RELEASE, NODE=cs3174	X X
RETRIEVE MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL	
Send and install the MCODE SUFFIXEC in production.	
DEF PHASE NAME=SEND01, STATUS=RELEASE, NODE=ctlhdf	X X
INSTALL MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL, SEND=YES, REMOVABILITY=YES, AUTOREMOVAL=DESIRED, AUTOACCEPT=NO, PRETEST=YES, POSTTEST=NO, ACTUSE=PRODUCTION	X X X X X X
Retrieve an MCODE SUFFIXEC from the UTL00001 subdirectory in the central site 3174 to the NetView DM resource repository.	
DEF PHASE NAME=RETRX8, STATUS=RELEASE, NODE=cs3174	X X
RETRIEVE MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.UTILITY	
Send and install the MCODE SUFFIXEC in production.	
DEF PHASE NAME=ISTLX01 STATUS=RELEASE, NODE=ctlhdf	X X
INSTALL MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL, SEND=YES, REMOVABILITY=DESIRED, AUTOREMOVAL=DESIRED, AUTOACCEPT=NO, PRETEST=YES, POSTTEST=NO, ACTUSE=PRODUCTION	X X X X X X

Figure 8-8. Example 8—Retrieve and Install Transmission Plan

## Retrieve and Install a Maintenance EC (Fixed Disk)

Figure 8-9 shows an example of a NetView DM transmission plan to retrieve a MAINTEC Control disk data object from the central site 3174 and install it in a network site 3174.

This transmission plan assumes the network site 3174 has subdirectory CTL00001 installed on a fixed disk.

DEF PLAN NAME=MAINX01, AUTOSUB=YES	X
Retrieve an MCODE MAINTEC from the CTL00001 subdirectory in the central site 3174 to the NetView DM resource repository.	
DEF PHASE NAME=RETRX1, STATUS=RELEASE, NODE=cs3174	X X
RETRIEVE MICROCODE NAME=MCODE.3174.NA.MAINTEC.A0400.CONTROL.88220	
Send and install the MCODE MAINTEC in production.	
DEF PHASE NAME=SEND01, STATUS=RELEASE, NODE=ctlhdf	X X
INSTALL MICROCODE NAME=MCODE.3174.NA.MAINTEC.A0400.CONTROL.88220, SEND=YES, REMOVABILITY=DESIRED, AUTOREMOVAL=DESIRED, AUTOACCEPT=NO, PRETEST=YES, POSTTEST=NO, ACTUSE=PRODUCTION	X X X X X X X

Figure 8-9. Example 9—Retrieve Transmission Plan

## Remove an Installed Suffixec (Fixed Disk)

Figure 8-10 shows an example of a NetView DM transmission plan to install a SUFFIXEC Control disk data object and then to remove it from a network site 3174.

This transmission plan assumes the network site 3174 has subdirectory CTL00001 installed on a fixed disk.

**Note:** See "Installing Data Objects" on page 7-18 for information about installing data objects with backup on diskette-only 3174s.

Retrieve an MCODE SUFFIXEC from the CTL00001 subdirectory in the central site 3174 to the NetView DM resource repository.	
DEF PLAN NAME=SUF2, AUTOSUB=YES	X
DEF PHASE NAME=RETR2, STATUS=RELEASE, NODE=cs3174	X X
RETRIEVE MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL	
Send and install the MCODE SUFFIXEC in production.	
DEF PHASE NAME=SEND19, STATUS=RELEASE, NODE=ct1hdf	X X
INSTALL MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL, SEND=YES, REMOVABILITY=YES, AUTOREMOVAL=DESIRED, AUTOACCEPT=NO, PRETEST=YES, POSTTEST=NO, ACTUSE=PRODUCTION	X X X X X X X
After it was installed the SUFFIXEC is removed because of a problem.	
DEF PLAN NAME=INS03, AUTOSUB=YES	X
DEF PHASE NAME=REMV03, STATUS=RELEASE, NODE=ct1hdf	X X
REMOVE MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL, POSTTEST=NO	X

Figure 8-10. Example 10—Remove Transmission Plan

## Delete a Sent Suffixec (Fixed Disk)

Figure 8-11 shows an example of a NetView DM transmission plan to delete a SUFFIXEC Control disk data object from a network site 3174.

This plan assumes the network site 3174 has a fixed disk installed with subdirectory CTL00001.

Retrieve an MCODE SUFFIXEC from the CTL00001 subdirectory in the central site 3174 to the NetView DM resource repository.		
DEF PLAN NAME=SND02, AUTOSUB=YES		X
DEF PHASE NAME=RETRX2, STATUS=RELEASE, NODE=cs3174		X X
RETRIEVE MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL		
The MCODE SUFFIXEC is sent and not installed.		
DEF PHASE NAME=SEND01, STATUS=RELEASE, NODE=ctlhdf		X X
SEND MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL, DESTRUCTION=ALLOWED, DELNAME=MCODE.3174.NA.SUFFIXEC.*.CONTROL, DELMATCHIND=(5,L)		X X X
The SUFFIXEC is now being deleted.		
DEF PLAN NAME=SND03, AUTOSUB=YES		X
DEF PHASE NAME=DELE01, STATUS=RELEASE, NODE=ctlhdf		X X
DELETE MICROCODE NAME=MCODE.3174.NA.SUFFIXEC.A0401.CONTROL		

Figure 8-11. Example 11—Delete Transmission Plan



---

## Appendix A. Managing the Network from the Central Site

1. A “local change” is defined as running one of the customizing utilities, such as configure, on a 3174 using the Utility disk and Control disk in the 3174. If you are implementing central site customizing for your network, this practice is discouraged. Configuring controllers independently from the central site library can cause you to quickly lose control of how your 3174s are configured and which microcode levels are being used.
2. When a “local change” is made, only the production-level data objects are created on the Control disk. Any data objects that were in the Send, On-Trial, or back-level states are deleted. Local changes should be used only to recover from a condition that has made the 3174 unusable.
3. The only time you can change Library diskettes while you are using the Central Site Customizing Utility is when you have the Library Members panel displayed.

If the Library disk drive selected is a fixed disk, PF9 is not displayed as one of the active PF keys on this panel.

4. Avoid writing your Library disks to full capacity. Keep the percentage of disk space used well below maximum, to allow space for upgrading from one level to another. The percentage of used disk space is shown on the Library Members panel.
5. If your library is on diskettes, consider partitioning your network library into a number of Library diskettes. Diskettes could be named according to various features of your network configuration, such as:
  - Microcode levels
  - Geographic locations
  - Features supported.

Member names could be assigned in groups of similar controllers; for example, all those located in a particular building could be identified as B963001, B963002, B963003, and so on. A member name always consists of up to 8 alphanumeric characters, the first being an alphabetic character.

6. To avoid conflicts with library member names, do not choose any SNA physical units (PU) or device logical unit (LU) names already used in the network. This includes PU and LU names used for non-3174 nodes. You can use the luname you have defined to ACF/VTAM to support central site change management and NetView DM.
7. When you are transferring data with NetView DM, if the communication link fails during the data transfer, autorecovery will occur when the link starts working again. Autorecovery will not occur if you re-IML the 3174 or reissue the NetView DM transmission plan.
8. Remember that the configuration level of the Utility disk you use to invoke the Central Site Customizing Utility and the configuration level of the library members you process must match. You will be informed by messages if they do not match.

Try to keep all the controllers within a network at the same release level. When different release levels are required, try to keep the suffix level the same for all the controllers within each release level.



Reminder: A mismatch between the maintenance levels of the Utility disk and of the library member does not cause a problem.

If necessary, refer to "Microcode Levels" in Chapter 1.

9. When managing library members at multiple microcode levels, you should work on one microcode level at a time. Use the Utility disk at the microcode level of the library members to be worked on.
10. Make it a practice to back up your Library diskettes or Library fixed disk regularly; use the Copy Utility. Make a backup copy of a Library disk before upgrading the microcode of library members, in case the lower-level customizing data is ever needed.
11. The date and time fields of a library member indicate when the member was last stored on the Library disk, for example, the last Put, the last Microcode Upgrade, or the last Generate Diskette function.
12. Use the Browse function to review the contents of a library member. Browsing is a quick way to view the contents of a library member without changing the library member or the working copy.
13. Using Local Copy in conjunction with the Browse function allows you to obtain a hard copy of the list of library members on a Library diskette or library subdirectory on a fixed disk and the customizing data of any library member.
14. The Get Member Data and the Put Member Data functions allow you to select which of the four data types you want to access. This capability is useful when you are loading working copy with different data types from different library members, and storing one data type as several different members.
15. To avoid changing the forms in your printer as you switch from Local Copy to generating labels, you can use two printers. You use the Print Ident key to identify which printer is currently in use.
16. When generating Control diskette labels for multiple library members, select members that are at the same microcode level so that the printed labels match the library member. Also, verify that the microcode level and the maintenance level of the printed label match any generated Control diskette that you apply it to.
17. The diskette label data of a library member contains the Control diskette information from the time the library member was last stored on the Library diskette, for example, the last Put, the last Microcode Upgrade, or the last Generate diskette.
18. You can use Specify Code 9005, Inhibit Microcode Shipment, to prevent a controller from receiving a Control diskette. This must be done for each controller that you want to be affected. These units will, however, receive a Limited Function Utility diskette.

19. Specify Code 9006, Central Site Diskette Distribution Aid, allows you to order all levels and combinations of 3174 configuration support microcode, microcode RPQs, and DSL device microcode for the central site controller. You should order Specify Code 9006 for your central site controller. With it, you can customize for any controller in the network, at the central site. Also, this specify code allows you to order both initial-ship-level diskettes and update diskettes to be used as master diskettes.

**Note:** You can reuse old 3174 diskettes, in addition to using new blank diskettes, for making copies of master diskettes or for creating Library diskettes.

20. Customized Control diskettes should be furnished by the central site to each controller in the network when:

- A controller is initially installed.
- You update a controller with a higher level of microcode.
- You change a controller's customizing data.

For CSCM users, you can electronically distribute the new control microcode and customization data.

21. Shipping containers should be reused to send diskettes to network controllers. Also, shipping containers should be reused at the network locations to send diskettes back to the central site.

**Note:** Reusable shipping containers and blank diskettes are available as accessories.

22. A record of the microcode release levels, kinds of disks (CTL, UTL, DSL, and so on) for your network 3174s and central site 3174 should be kept in a convenient location for the central site planner. This is particularly important when you store your library on a fixed disk.



---

## Appendix B. Interutility Checking

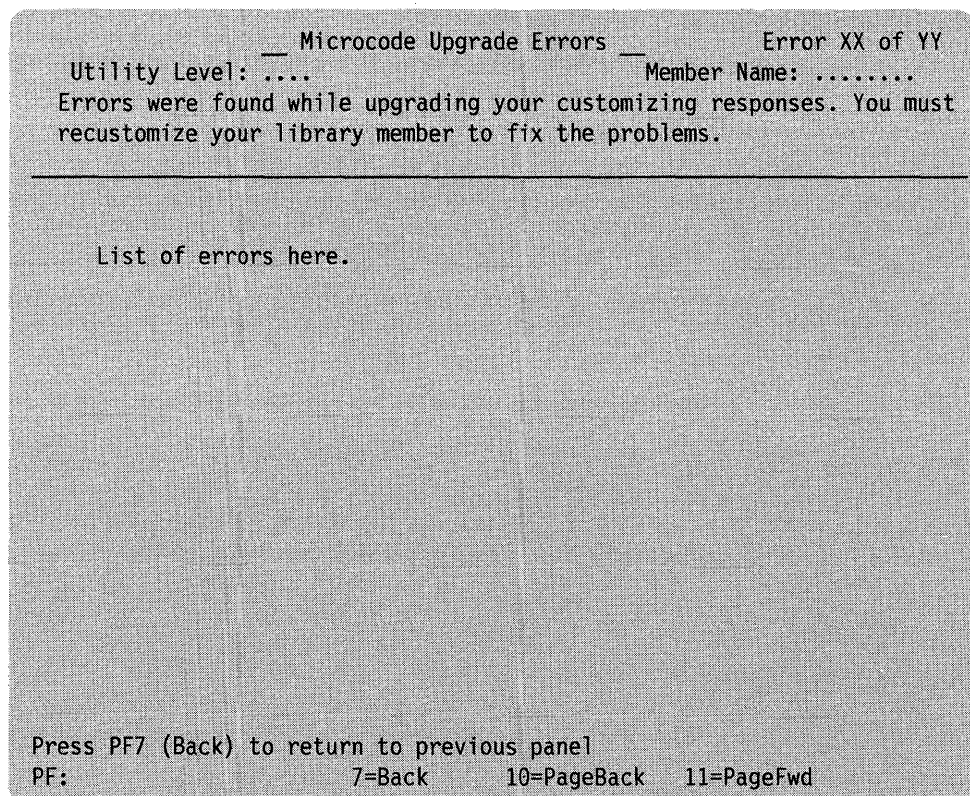
Interutility checking is employed during central site customizing to detect errors that may occur between the customizing data types: Configure, AEA Configure, and PAM. Specifically, interutility checking takes place when these data types are used in performing the central site customizing functions Get, Put, Microcode Upgrade, Generate Labels, and Generate Diskettes and Labels.

If an error is detected during one of these functions, one of five interutility error panels is displayed. The Microcode Upgrade Errors panel, shown below, is an example of such a panel.

---

### Interutility Error Panel for Get

This **Microcode Upgrade Errors** panel is displayed if an interutility error occurs during the automatic microcode upgrade that takes place during a Get.



**Note:** Information on this panel tells you what kind of error occurred, the member name involved, the errors detected, and the action required.

You must recustomize the working copy to fix the problem. Press PF7 to return to the previous panel.

---

## Other Interutility Error Panels

The other four interutility panels are described below.

### Interutility Error Panel for Put

A **Customizing Errors** panel is displayed when there are errors in your customizing responses during a Put.

You must correct the errors before generating a Control disk.

Press PF12 (File) to store the data on the Library disk; press PF5 (Cancel) to cancel the storing of data on the Library disk.

### Interutility Error Panel for Microcode Upgrade

A **Microcode Upgrade Errors** panel is displayed when errors are found while you are microcode-upgrading your customizing responses.

You must recustomize the library member to fix the problem.

Press PF12 (File) to store the data on the Library disk; press PF5 (Cancel) to cancel the storing of data on the Library disk.

### Interutility Error Panel for Generates

A **Customizing Errors** panel is displayed if interutility errors are detected in your customizing responses or between your customizing responses and the data on the Control disk.

You must correct these errors before generating a Control disk.

Press PF7 (Back) to return to the previous panel.

---

## PF Keys

Several of the following PF keys appear at the bottom of each error panel:

PF5 (Cancel) – Cancels the storing of data on the Library disk.

PF7 (Back) – Returns you to the previous panel.

PF10 (PageBack) – Displays the previous page of errors.

PF11 (PageFwd) – Displays the next page of errors.

PF12 (File) – Stores the data on the Library disk.

---

## Error Messages

For information concerning the error messages that may appear in the interutility error panels, see *3174 Status Codes*, GA27-3832.

---

## Appendix C. Problem Determination

Problems encountered when you use central site change management show up in a variety of ways. The network site control units may have recorded a 3174 status code in the 3174 event log or a status code may be displayed on the 3174 operator panel. Status codes are described in *3174 Status Codes*, GA27-3832. That manual provides a description and a recovery action for any status codes that may occur.

Another way problems are reported is in the NetView DM installation report that is generated when a transmission plan is executed. The installation report shows the completion status for all of the NetView DM functions that were specified in a transmission plan after the functions are executed. If a problem occurs with a particular phase of a transmission plan, the installation report may contain a SNA Registered Sense Code. Only the sense codes that are generated by the 3174 are explained in the next section.

---

### SNA Registered Sense Codes

The following chart contains a numerical listing of the SNA Registered Sense codes generated by the 3174. Each sense code has a brief description and a recovery action.

Depending on the sense code you have you can find supporting information about NetView DM functions in Chapter 7 of this book. Other information you may need is provided in SNA architecture publications and NetView DM publications. See "Related Publications" in the Preface for a list of the required manuals.

<b>Sense Code</b>	<b>Description/Action</b>
<b>080C0006</b>	The subvector is unknown. Contact your system programmer.
<b>080C000B</b>	Auto delay on an accept is not supported. Contact your system programmer.
<b>080C000C</b>	Installation timing is not supported. Contact your system programmer.
<b>080C000D</b>	The POSTTEST parameter is set to Y (yes). Set POSTTEST to N (no) and reissue the NetView DM function that failed.
<b>080C000E</b>	AUTOREMOVE is required. Set AUTOREMOVE to Y (yes) and reissue the NetView DM function that failed.
<b>080C000F</b>	Activate of Production only is not supported. Contact your network planner.
<b>080C0011</b>	Activation Timing is not supported. Contact your system programmer.

Sense Code	Description/Action
08120000	The canonical name directory on the disk media is full. Delete, Remove, or Accept unnecessary data objects.
081D0001	The luname in the canonical name of the data object does not match the Network id/luname specified in the transmission plan. Correct the luname and resend the data object.
08380000	Installation test failed. See the Installation report for details.
08380001	The data object named in this function is installed removably. The data object <b>cannot</b> be deleted or another data object <b>cannot</b> be installed in its place while it is in the removable state. You can do one of the following actions: <ul style="list-style-type: none"> <li data-bbox="440 747 1373 810">• Use the ACCEPT function for the data object. Then you can use the DELETE function to erase it, or the INSTALL function to replace it.</li> <li data-bbox="440 831 1425 926">• If a back-level version is present in the target 3174, you can make the back-level version the “production” version by using the REMOVE function for the data object specified in this transmission plan.</li> </ul>
08380002	An operation was attempted on a data object that is in the back-level state on the target 3174. This is not allowed. You can do one of the following actions: <ul style="list-style-type: none"> <li data-bbox="440 1073 1417 1136">• Use the ACCEPT function for the same data object that is installed in production on the target 3174. The back-level version will be erased.</li> <li data-bbox="440 1157 1425 1220">• Use the REMOVE function for the same data object that is installed in production on the target 3174. The back-level version will become the production version.</li> </ul>
08380003	The data object you are attempting to install on-trial is already installed On-Trial. If you intended to install this data object On-Trial, it is already done. The other functions you can use for this data object are REMOVE, or INSTALL in production.
08380004	The data object you are attempting to install in production is already installed in production removably. If you intended to install this data object, it is already done. The only other options you have for this change are to remove or accept it.
08380005	An install of an identical data object was attempted. The target 3174 has rejected this INSTALL function. Verify the data object you wanted to install and resend a different one if required.
08380006	You are attempting to remove or accept a data object that cannot be removed or accepted.

<b>Sense Code</b>	<b>Description/Action</b>
<b>08380007</b>	The INSTALL function was rejected. The data object has not been installed.
<b>0838000D</b>	You attempted to install in production a data object that has corequisite data objects. This data object and its corequisite data objects were previously installed On-Trial. You must either specify a complete matching list of corequisite data objects or none at all.
<b>0838000E</b>	You <b>cannot</b> use the ACCEPT function for data objects that are installed On-Trial. Use INSTALL in production for this data object.
<b>0838000F</b>	You are attempting to delete a data object that cannot be deleted. To delete this data object, you must first install a replacement data object. A 3174 subsystem required data object cannot be deleted. You can renew it or install another in its place. The current version can be moved to back-level or be removed (removability = no) as part of the install function.
<b>08380010</b>	Data Object change limit exceeded. The 3174 supports a maximum of two copies of a particular data object being present at the same time.  It supports a production level with a back-level, or it supports a production level with an On-Trial level. Before you can reinstall the data object you were trying to install, you must remove, or delete, or install in production the same data object you are trying to change in the target 3174.
<b>08380011</b>	You are attempting to delete or replace a data object currently installed in the back-level state. This is not allowed.  Use INSTALL in production to move the data object from the back-level state. Then you can delete it (if it is not a required data object), or replace it.
<b>08380012</b>	A corequisite data object specified in the INSTALL function was never received by the target 3174. Either you have not sent the required corequisite data object, or the installed state of the data object is not compatible. This state problem can occur only when installing an On-Trial data object in production. If you do not know the complete corequisite list, do not specify it in the INSTALL function. The CSCM microcode keeps track of the corequisite data objects.
<b>08380013</b>	You cannot do a DESTRUCTIVE SEND of a data object that is installed.  Use SEND and then INSTALL, or INSTALL with SEND to replace the data object.
<b>08380014</b>	You have specified an invalid combination of parameters, such as REMOVABILITY, AUTOREMOVE, AUTOACCEPT, or ACTUSE.



<b>Sense Code</b>	<b>Description/Action</b>
<b>08380015</b>	You cannot delete or replace a data object installed removably. This function is used for a production-level data object that has an On-Trial version of the same data object installed.
<b>08380016</b>	You are attempting to replace a data object with the exact same data object and you are requesting removability. If you do want to actually replace the data object with itself, specify DESTRUCTION = ALLOWED.
<b>084C0002</b>	Insufficient Storage; disk full. The disk or diskette has exceeded its capacity. Remove, accept, or delete unnecessary data objects. If the problem continues, contact your network planner.
<b>084C0006</b>	Disk Full. The fixed disk or diskette has exceeded its capacity; remove accept or delete unnecessary data objects. If the problem continues, contact your network planner.
<b>084C0007</b>	Unknown change management command. Contact your network planner.
<b>084C0008</b>	Volume not mounted; the requested data object was not found on the diskette or fixed disk in the target 3174. Verify that the data object you requested should be present on the target 3174. You may have specified an incorrect luname or canonical name in your transmission plan.
<b>084F0000</b>	Diskette drive not available on the target 3174. Either the diskette drive is failing or the diskette was removed from the 3174 while the change management operation was in progress. At the target 3174: <ol style="list-style-type: none"> <li>1. Check that the correct diskette is installed and the installed diskette is not write protected.</li> <li>2. If the diskette was not the problem, an Alt 2 IML should be run on the 3174.</li> </ol> When the problem is resolved, re-execute the transmission plan for the target 3174.
<b>085A0000</b>	Server exception identified when an SNA/FS error is encountered.
<b>085B0001</b> or <b>085B0002</b>	Contact your System Programmer.
<b>085C0001</b> or <b>085C0002</b>	Contact your System Programmer.

Sense Code	Description/Action
085D0001	There is a mismatch between the number of data objects received and the number of data objects that were sent. Resynchronization is required.
085D0002	There is a mismatch between the number of data objects received and the number of data objects that were sent. Resynchronization is required.
085D0005	Uninitialized MUID register (Automatic Recovery).
08790001	<p data-bbox="451 594 1393 653">Disk Media error. One of the following procedures should be done at the target 3174.</p> <p data-bbox="451 674 610 699">For diskettes:</p> <ul data-bbox="467 720 992 852" style="list-style-type: none"> <li data-bbox="467 720 748 745">• Replace the diskette.</li> <li data-bbox="467 766 971 791">• Run the "Diskette Media Surface Scan."</li> <li data-bbox="467 812 992 837">• If the problem continues, request service.</li> </ul> <p data-bbox="451 873 634 898">For fixed disks:</p> <ul data-bbox="467 919 919 945" style="list-style-type: none"> <li data-bbox="467 919 919 945">• Run the "Fixed Disk Surface Scan."</li> </ul> <p data-bbox="451 966 1372 991">See 3174 <i>Customer Problem Determination</i>, GA23-0217, for these procedures.</p>
08790002	<p data-bbox="451 1068 1393 1127">Disk Media error. One of the following procedures should be done at the target 3174.</p> <p data-bbox="451 1148 610 1173">For diskettes:</p> <ul data-bbox="467 1194 992 1327" style="list-style-type: none"> <li data-bbox="467 1194 748 1220">• Replace the diskette.</li> <li data-bbox="467 1243 971 1268">• Run the "Diskette Media Surface Scan."</li> <li data-bbox="467 1289 992 1314">• If the problem continues, request service.</li> </ul> <p data-bbox="451 1350 634 1375">For fixed disks:</p> <ul data-bbox="467 1396 919 1421" style="list-style-type: none"> <li data-bbox="467 1396 919 1421">• Run the "Fixed Disk Surface Scan."</li> </ul> <p data-bbox="451 1442 1372 1472">See 3174 <i>Customer Problem Determination</i>, GA23-0217, for these procedures.</p>
089A0001	Cannot find the requested data object specified in the canonical name (file not found).
089E0001	You are attempting to send a data object that already exists in the send state at the receiving node. Reissue the send function with the DESTRUCTION parameter set to A (allowed).

Sense Code	Description/Action
089E0002	You previously sent a data object and you are attempting to replace the data object you sent with a DESTRUCTIVE SEND. However, the name of the previously sent data object does not match the name you have specified in the DELNAME parameter. Reissue the SEND function with the correct canonical names.
08A40001	A field in the canonical name that must be specified was not specified. See "Using Partial Canonical Names" on page 6-5.
08A40002	You have specified a partial canonical name and the receiving node requires additional fully qualified fields. See "Using Partial Canonical Names" on page 6-5
08720001	An ACTIVATE with the force parameter set to NO was rejected because the target 3174 has user sessions in progress.  Reissue the ACTIVATE. Either set the force parameter to YES or issue the ACTIVATE when user sessions are not in progress.
1003000D to 10190003	Contact your System Programmer.
80190001	The wrong node received the data that was sent. There is an error on the Network ID in the ACF/VTAM routing tables, or the 3174 network ID was specified incorrectly in question 501 when it was customized.
80190002	The wrong node received the data that was sent. There is an error on the luname in the ACF/VTAM routing tables, or the 3174 luname was specified incorrectly in question 502 during customization.

---

## List of Abbreviations

### A

**ACF/VTAM.** Advanced Communications Function for the Virtual Telecommunications Access Method.

**AEA.** Asynchronous Emulation Adapter.

**AID.** Attention identifier.

**Alt.** Alternate.

**A/N.** Alphanumeric.

**ANSI.** American National Standards Institute.

**APL.** A Programming Language.

**ASCII.** American National Standard Code for Information Interchange.

**ATTN.** Attention.

### B

**BSC.** Binary synchronous communication.

### C

**CCITT.** International Telegraph and Telephone Consultative Committee.

**char.** Character.

**CSL.** Central site library.

**CSCM.** Central Site Change Management.

**CSCU.** Central Site Change Utility.

**CTL.** Control.

**CU.** Control unit.

**CUT.** Control unit terminal.

### D

**dec.** Decimal.

**DFT.** (1) Distributed function terminal. (2) Diagnostic function test.

**DM.** (1) Disconnect mode. (2) Distribution Manager

**DP.** (1) Data processing. (2) Distribution panel.

**DSL.** (1) Downstream load. (2) Data set label.

### E

**EBCDIC.** Extended binary-coded decimal interchange code.

**EC.** Engineering change.

**EIA.** Electronic Industries Association.

### F

**FCC.** Federal Communications Commission.

**FF.** Forms feed.

### H

**hex.** Hexadecimal.

### I

**I.** Information (format).

**ID.** Identification, identifier.

**Ident.** Identification.

**IML.** Initial microcode load.

**in.** Inch (or inches).

**I/O.** Input/output.

## **K**

**k.** 1000.

**K.** 1024.

## **L**

**L.** Left.

**LAN.** Local area network.

**LFU.** Limited Function Utility

**LIB.** Library

**LLC.** Logical link control.

**LT.** Logical terminal.

**LU.** Logical unit.

## **M**

**m.** Meter (or meters).

**MLT.** Multiple logical terminals.

**mm.** Millimeter (or millimeters).

**modem.** Modulator-demodulator.

**MVS.** Multiple virtual storage.

## **N**

**NCP.** Network Control Program.

**No.** Number.

**NS.** Nonsequenced (format).

## **P**

**P.** Printer, protected.

**PAM.** Printer authorization matrix.

**PC.** Personal Computer.

**PF.** Program function.

**PU.** Physical unit

## **R**

**R.** Rear, row.

**rel.** Relative.

**RPQ.** Request for price quotation.

**rt.** Right.

**RU.** Request/response unit.

## **S**

**S.** Sequenced (format), side.

**SCS.** SNA character string.

**sec.** Second.

**SNA.** Systems Network Architecture.

**SP.** (1) Space. (2) Specific Poll.

**SSCP.** System services control point.

**SUB.** Substitute.

## **T**

**TA.** Terminal adapter.

**TMA.** Terminal multiplexer adapter.

## **U**

**U.S.** United States.

## **V**

**VTAM.** Virtual Telecommunications Access Method.

## **W**

**WE.** Western Electric.

---

# Glossary

This glossary includes terms and definitions from the *IBM Dictionary of Computing: Information Processing, Personal Computing, Telecommunications, Office Systems, IBM-specific Terms*, SC20-1699.

The terms in this glossary are defined here as they apply to the 3270 Information Display System.

## A

**address.** (1) A value that identifies a register, a particular part of storage, a data source, or a data sink. The value is represented by one or more characters. (2) To refer to a device or an item of data by its address. (3) In word processing, the location, identified by an address code, of a specific section of the recording medium or storage. (4) The location in the storage of a computer where data is stored. (5) In data communication, the unique code assigned to each device or work station connected to a network.

**alternate 1 initial microcode load (Alt 1 IML).** The action of loading the Utility microcode.

**application.** The use to which an information processing system is put, for example, a payroll application, an airline reservation application, or a network application.

**application program.** (1) A program written for or by a user that applies to the user's work, such as a program that does inventory control or payroll. (2) A program used to connect and communicate with stations in a network, enabling users to perform application-oriented activities.

**asynchronous.** (1) Without regular time relationship; unexpected or unpredictable with respect to the execution of program instructions. (2) In asynchronous data transmissions, data characters may be sent or received at any time; no modem clocking is used to establish bit timing.

**Asynchronous Emulation Adapter (AEA).** In the 3174 Establishment Controller, an adapter that enables an ASCII terminal to communicate with a 3270 host using the 3270 data stream, an ASCII terminal to communicate with an ASCII host through the 3174, and a 3270 terminal to communicate with

an ASCII host using the DEC VT100 data stream or the IBM 3101 data stream.

**attach.** To connect a device logically to a 3174 adapter, so that it can communicate over the network.

**attribute.** (1) A characteristic. (2) A terminal display language or transformation definition language (TDL) keyword that specifies a particular quality for the TDL object with which it is associated.

## B

**binary synchronous communications (BSC).** Data transmission in which character synchronism is controlled by timing signals generated at the sending and receiving stations.

**buffer.** (1) A routine or storage used to compensate for a difference in rate of flow of data, or time of occurrence of events, when transferring data from one device to another. (2) An isolating circuit used to prevent a driven circuit from influencing the driving circuit. (3) To allocate and schedule the use of buffers. (4) A portion of storage used to hold input or output temporarily.

## C

**Central site change management (CSCM).** A function of the 3174 microcode that tracks the microcode for each controller in a network and, in conjunction with NetView DM, electronically distributes and retrieves microcode changes for each controller.

**central site customizing.** The process of tailoring control unit microcode for each controller in a network, at the central site.

**central site library.** One or more Library disks that contain customizing data and label information for the controllers in a network.

**character set.** (1) A defined collection of characters. (2) A group of characters used for a specific reason, for example, the set of characters a printer can print. (3) The collection of graphic characters required to support a specific language.

**configuration.** The arrangement of a computer system or network as defined by the nature, number, and chief characteristics of its functional units. More specifically, the term *configuration* may refer to a hardware configuration or a software configuration. See also *system configuration*.

**Control (CTL) disk.** A customized diskette or fixed disk containing the microcode that describes a particular controller's attached terminals, and its method of attachment to the host.

**Control (CTL) diskette.** A customized diskette containing the microcode that describes a particular controller's attached terminals, and its method of attachment to the host.

**control function.** Synonym for *control operation*.

**controller.** A unit that controls input/output operations for one or more devices.

**control unit terminal (CUT).** A terminal that relies on the 3174 to interpret the data stream. Examples are the 3178, 3179, 3278 Model 2, and 3279 Model S2A.

**create.** In 3174 central site customizing, to create a library member for a network controller, and store the customizing data for that library member on a Library diskette.

**customization.** Procedures that tailor the control unit microcode to fit the various types of display stations and printers and the method of host attachment that a particular control unit will handle.

**customizing display station.** A display station used to perform the customizing procedures; this display station must be attached to port 26-00 of the controller. Only these display stations can be used for customizing: a 3178, a 3179 Model 1 operating in native or 3279-emulation mode, a 3180 operating in native or 3278-emulation mode, a 3191, a 3192, a 3194 operating in control unit terminal (CUT) mode, a 3270 Personal Computer with 3278/3279 emulation, operating in CUT mode, a 3278 (except Model 1), a 3279, a 5550 family operating in CUT mode, a 6150 RT Personal Computer, and a 6151 RT Personal Computer.

**customizing keyboard.** A keyboard used to type in the customizing responses; this keyboard must be

a Typewriter, Data Entry, APL (with APL off), or Text (with Text off) keyboard with a QWERTY layout. (On a QWERTY layout, the first six characters on the left side of the top row of alphabetic characters are Q, W, E, R, T, Y.)

## D

**data processing (DP).** The systematic performance of operations upon data; for example, handling, merging, sorting, computing.

**disk.** A direct-access data storage medium, which may be either flexible (diskette) or hard (fixed disk).

**diskette.** A flexible magnetic disk enclosed in a protective container.

**diskette drive.** The mechanism used to seek, read, and write data on diskettes.

**disk image.** Stored data originally held on a diskette but which may be copied onto a fixed disk.

**distributed function terminal (DFT).** A programmable terminal that can perform operations previously performed by the control unit. These terminals can interpret the 3270 data stream themselves. Examples are the IBM 3270 Personal Computer and the 3290 Information Panel.

**downstream.** (1) In the direction of data flow or toward the destination of transmission. (2) From the processor toward an attached unit or end user. (3) Contrast with *upstream*.

**downstream load (DSL).** The capability of a distributed function terminal to receive its control program from the control unit to which it is attached. A diskette containing the terminal's control program is loaded into the control unit.

## F

**file.** A named set of records stored or processed as a unit.

**fixed disk.** A rigid magnetic disk used in a fixed disk drive.

**fixed disk drive.** A disk storage device that reads and writes on rigid magnetic disks.

**foreground logical terminal (LT).** Synonym for *active logical terminal (LT)*.

## G

**generate.** In 3174 central site customizing, to write a Control diskette containing the customizing data for a particular controller. Also, to print a mailing address label and a diskette label for a particular control unit.

**get.** In 3174 central site customizing, to select the type of data you want and store it in working copy.

## I

**initial microcode load (IML).** The action of loading the operational microcode.

**input/output (I/O).** (1) Pertaining to a device whose parts can perform an input process and an output process at the same time. (2) Pertaining to a functional unit or channel involved in an input process, output process, or both, concurrently or not, and to the data involved in such a process. (3) Pertaining to input, output, or both.

**interface.** (1) A shared boundary between two functional units, defined by functional characteristics, common physical interconnection characteristics, signal characteristics, and other characteristics as appropriate. (2) A shared boundary. An interface may be a hardware component to link two devices or a portion of storage or registers accessed by two or more computer programs. (3) Hardware, software, or both, that links systems, programs, or devices.

## L

**Library disk.** A diskette or fixed disk that contains customizing data for some or all of the controllers in a network.

**Library (LIB) diskette.** A diskette that contains customizing data for some or all of the controllers in a network.

**library member.** A file located on a Library disk that contains customizing information for a controller in a network.

**Limited Function Utility (LFU) diskette.** A diskette that contains the microcode to run only a limited

number of utilities. These are: Diagnostics, Copy Files, Encrypt/Decrypt Master Key, and Identify Customizing Keyboard. The Limited Function Utility diskette is used mainly in networks that are under central site control.

**link.** The logical connection between nodes including the end-to-end link control procedures.

**logical unit (LU).** In SNA, a port through which an end user accesses the SNA network in order to communicate with another end user and through which the end user accesses the functions provided by system services control points (SSCPs). An LU can support at least two sessions, one with an SSCP and one with another LU, and may be capable of supporting many sessions with other logical units.

## M

**main storage.** Program-addressable storage from which instructions and other data can be loaded directly into registers for subsequent processing.

**Master Control diskette.** A diskette that contains the base microcode, any necessary patches, RPQs, and modified keyboard tables.

**medium access control (MAC) procedure.** In a local area network, the part of the protocol that governs access to the transmission medium independently of the physical characteristics of the medium, but taking into account the topological aspects of the network, in order to enable the exchange of data between data stations.

**memory.** Program-addressable storage from which instructions and other data can be loaded directly into registers for subsequent execution or processing. Synonymous with *main storage*.

**microcode.** (1) One or more microinstructions. (2) A code, representing the instructions of an instruction set, that is implemented in a part of storage that is not program-addressable. (3) To design, write, and also to test one or more microinstructions.

**multidrop (network).** A network configuration in which there are one or more intermediate nodes on the path between a central node and an endpoint node.



## N

**NetView.** A comprehensive network management product that is the basis for central control of both systems for network operations. It supersedes NCCF, NPDA, NLDM, and NPM.

**network.** (1) An arrangement of nodes and connecting branches. Connections are made between data stations. (2) A configuration of data processing devices and software connected for information interchange.

**Network Control Program (NCP) node.** In SNA products, a subarea node that contains an ACF/NCP program but not a system services control point (SSCP).

**node.** An end point of a link or a junction common to two or more links in a network.

## P

**padding.** (1) A technique by which a receiving station controls the rate of transmission of a sending station to prevent overrun. (2) In SNA, a technique by which a receiving component controls the rate of transmission of a sending component to prevent overrun or congestion.

**parameter.** (1) A variable that is given a constant value for a specified application and that may denote the application. (2) An item in a menu for which the user specifies a value or for which the system provides a value when the menu is interpreted. (3) Data passed between programs or procedures.

**physical unit (PU).** In SNA, the component that manages and monitors the resources (such as attached links and adjacent link stations) of a node, as requested by an SSCP through an SSCP-SSCP session.

**printer authorization matrix (PAM).** A matrix stored in the controller that establishes printer assignment and classification.

**program function (PF) key.** On a display device keyboard, a key that passes a signal to a program to call for a particular display operation. See also *program access (PA) key*.

**put.** In 3174 central site customizing, to store data from the working copy into a library member.

## R

**request for price quotation (RPQ).** An alteration or addition to the functional capabilities that the controller provides.

**return code.** (1) A code used to influence the execution of succeeding instructions. (2) A value returned to a program to indicate the results of an operation requested by that program.

## S

**server.** On a local area network, a data station that provides facilities to other data stations, for example, a file server, a print server, or a mail server.

**session.** (1) In network architecture, an association of facilities necessary for establishing, maintaining, and releasing connections for communication between stations. (2) In MLT, synonymous with logical terminal (LT). (3) In SNA, a logical connection between two network addressable units that can be activated, tailored to provide various protocols, and deactivated as requested.

**storage.** A unit into which recorded text can be entered, in which it can be retained and processed, and from which it can be retrieved. See also *memory*.

**Systems Network Architecture (SNA).** The description of the logical structure, formats, protocols, and operational sequences for transmitting information units through, and controlling the configuration and operation of, networks.

## T

**telecommunication-attached.** Pertaining to the attachment of devices by teleprocessing lines to a host processor. Synonym for *remote*. Contrast with *channel-attached*.

**terminal.** In data communication, a display station or printer capable of sending or receiving information.

## U

**update.** In 3174 central site customizing, to tailor a library member's customizing data, in working copy, and put it back to the library diskette.

**upgrade.** In 3174 central site customizing, to select a library member and upgrade its data to the microcode level of the Central Site Customizing Utility diskette.

**Utility disk.** A diskette or fixed disk that contains the microcode necessary to run various utilities, for example, to copy portions of a diskette for a backup diskette.

**Utility (UTL) diskette.** A diskette that contains the microcode necessary to run various utilities, for example, to copy portions of a diskette for a backup diskette.

## W

**working copy (WC).** In 3174 central site customizing, a set of customizing data and label data held in main storage, which is tailored to reflect a network controller's attached terminals, its method of host attachment, and other pertinent information.



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**Publication No. GA23-0342-2**

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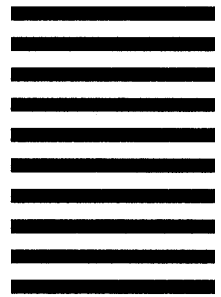


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