AS/400e series

IBM

Software Installation

Version 4

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About Software Installation (SC41-5120)

This book contains task-oriented instructions to install licensed programs on a AS/400* system that uses IBM CD-ROM distribution media. Instructions for specific tasks are:

- Preparing to install a new release of software

- Replacing a release by using either the automatic or the manual installation process

- Installing a new AS/400 system either with or without the operating system already installed

- Installing an additional licensed program

- Installing a secondary language

- Changing the primary language by using a secondary language tape

- Recovering from errors during installation processes

This book contains instructions and a recommended path for each installation task. If you choose options on any displays other than those that are recommended in this book, make a note of which option you choose. You will need this information later for recovery procedures if a failure occurs.

This book does <u>not</u> contain information about performing a CISC to RISC upgrade or about installing software products on programmable workstations.

Who Should Read This Book

This book is for the system operator or office supervisor who is responsible for installing the licensed programs or operating system. The person with these responsibilities must have security officer authority for the system.

You should be able to operate the following devices:

- Display stations

- Optical devices that support the CD-ROM media class

- Tape libraries

- Tape units

For information about how to operate these devices, refer to the operator's guide for the devices.

You should also know how to do the following tasks on your AS/400 system:

- Sign on and off your display station

- Use function keys on your display station keyboard

- Use displays and menus

- Enter and use commands

- Change the IPL mode on the system unit control panel

- Install program temporary fixes (PTFs)

Information about how to do these tasks is in the book *System Operation for New Users*, SC41-3200.

Conventions and Terminology Used in This Book

When a release is specified in this manual, the short form is used as shown in the second column. For example:

Version 3 Release 7 Modification 0 V3R7M0

Version 4 Release 1 Modification 0 V4R1M0

Version 4 Release 2 Modification 0 V4R2M0

If an *x* appears in any of the positions that contain numerals, any supported value can be used.

Prerequisite and Related Information

The documents that are listed and described in "Locate and Review Information" on page 3-5 are *highly* recommended as supplemental information to this book.

You may also find the following references useful:

- If you are using auxiliary storage pools, device parity protection, or mirrored protection, you should obtain the book *Backup and Recovery*, SC41-5304 .

- Before you begin production work on your system, be sure you have adequately protected your system from unauthorized use. Refer to the book *Security - Basic*, SC41-5301, for information about how to plan and set up security on your system. This book was shipped to you in a set of early planning publications. If you are interested in C2 security, refer to the book *Security-Enabling for C2*, SC41-3303.

- The *AS/400e series Softcopy Library CD-ROM*, SC41-5026 ships with your system. It provides details to help you complete tasks on your AS/400 and softcopy reference materials.

For information about other AS/400 publications (except Advanced 36), see the following:

- The *Publications Reference*, SC41-5003, in the AS/400 Softcopy Library.

Information Available on the World Wide Web

More AS/400 information is available on the World Wide Web. You can access general information from the AS/400 home page, which is at the following uniform resource locator (URL) address:

http://www.as400.ibm.com

To access information on how to perform basic tasks on yourAS/400, try the Tech Studio, located at:

http://www.as400.ibm.com/techstudio

You can also access the AS/400 library on-line from the Tech Studio.

You can access current Program Temporary Fix (PTF) information and Preventive Service Planning (PSP) information at:

`http://as400.sevice.rochester.ibm.com/as400/service.html`

Summary of Changes to Software Installation

Version 4 Release 2 Modification 0 of OS/400 includes a number of changes that affect software installation processes. This topic describes the significant differences.

Install Status Screens: V4R2M0 has a new install status screen. The new screen shows the current status of the installation and displays information about the parts left to install.

Enhanced Prepare for Install function: V4R2M0 includes function to assist you with preparing to install software. One highlight of this function is a summary screen that shows how much additional DASD may be needed before installing V4R2M0. This screen indicates if the install time can be decreased with multi-process installation. Additional function allows the detection of data base cross reference errors before the install process begins. Program temporary fixes (PTFs) make this support available on V3R7M0 and V4R1M0 so you can use it when installing V4R2M0. "Prepare for Install-Overview" on page 1-7 describes this function.

Customized descriptions: V4R2M0 includes support for user customized job descriptions and subsystem descriptions in the QSYS library. Three new libraries; QINSYS, QINMEDIA, and QINPRIOR, are used to hold user-customized information from the prior release. See "Identifying Changes to IBM-Supplied Objects" on page 3-29 for more information.

Error Recovery: Certain installation errors in V4R2M0 will allow you to correct the mistake without restarting the installation process. After you correct the error, you can resume the installation process. Other minor errors will be posted to the job log for viewing after the installation process ends.

Level Indicators: The concept of a level is being introduced in V4R2M0. Levels will indicate that the operating system or licensed internal code has been refreshed with some new function. Levels are not available for product options or licensed programs. For example, a level 10 of V4R2M0 will indicate that the system is still at V4R2M0 but has some new function added. This level indicator can be seen on the display software resources screen and the licensed program menu.

Addendum to Central Site Distribution: This revision of *Software Installation* contains an addendum to *Central Site Distribution* for V4R2M0. If you will be using Central Site Distribution for this release, you must use the information found in "Addendum to Central Site Distribution" on page 11-5, which has been updated for V4R2M0.

Chapter 1. Overview of the Installation Process

Welcome to the *Software Installation* book for AS/400 business computing systems. The organization of this book should make it easier for you to prepare for and perform your installation. We want your software installation process to be easy.

The software installation process can be thought of as having three phases; pre-install activities, the install process, and post-installation activities. Figure 1-1 on page 1-2 shows an overview of the installation process. (Your installation process may not include all of the topics that are shown in the figure.)

- To Do Before Installing:

  You can do these activities days or even a few weeks in advance. These activities include verifying your order, checking the disk space you have available, backing up your system, and cleaning your media device. Use Chapter 3, "Preparing to Install Software" on page 3-1 of this book to guide you through the activities you need to do before installing your new release.

  Appendix E, Additional Installation Information, includes additional information about the installation process. Be sure to read it before you begin installing this release.

- Installation Process:

  After you have completed the planning steps, Chapter 2, "Where to Begin" on page 2-1 directs you to the appropriate instructions for your installation process. The installation process begins when you start performing the instructions in one of the procedural chapters in this book.

- To Do After Installing:

  The last step of each procedure directs you to use Chapter 11, "Checklist for Completing the Installation" on page 11-1 to complete the installation process. You may be directed to additional steps such as saving your system and performing installation activities on workstations for Client Access products. Other activities could include customizing your system, setting usage limits for user-based priced products, or loading online books. Before you begin production work on your system, be sure you have adequately protected your system from unauthorized use.

If a failure occurs during the installation process, Appendix A, Recovery Procedures contains information that can help you determine the problem and the necessary recovery steps.

Essential Installation Concepts

At some point, each installation procedure in this book uses the Work with Licensed Programs (LICPGM) menu. Before you begin, you should know what to expect from the installation process you use and the possible effect of the support to enable mixed releases on AS/400. "Installation Procedures-Overview" on page 1-2 provides an overview of the installation procedures that are used in this book. "Mixed Release Support-Overview" on page 1-4 describes how support for mixed releases interacts with the installation procedures that replace a release of software. (You replace a release when you use the automatic or manual installation procedures.)

Before Installing   **Installation Process**   **After Installing**
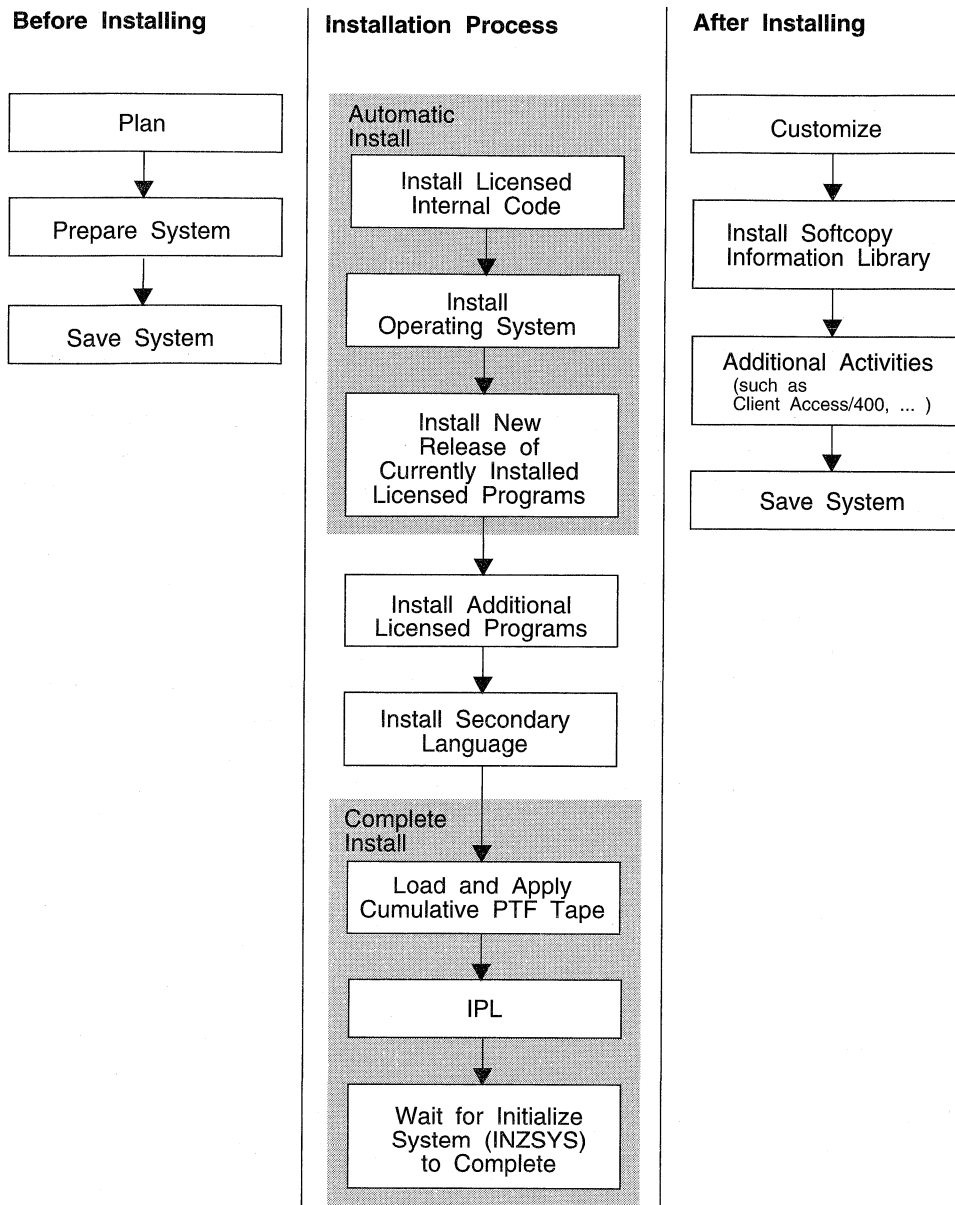
RV3D005-1

Figure   1-1. Overview of the Installation Process

Installation Procedures-Overview

This topic describes the results of each installation procedure that is used in this book.

Installing a New System

If you are installing a new system, the operating system may or may not be already installed. The procedures in the Installing a New System section of this book help you to install the operating system, if necessary, and to install licensed programs. When you use Chapter 6, Installing a New AS/400 System with the Operating System Already Installed, you may already have licensed programs installed. The result of using this procedure is that only licensed programs that are new to the system are installed from media. When you use Chapter 7, Installing a New AS/400 System without the Operating System Installed, you do not have any

licensed programs installed. The result of using this procedure is that all licensed programs that are on the media are installed.

You may find that you do not use some of the optional parts of licensed programs that are installed. Often this is true with licensed programs, such as OS/400 and Client Access, that have many optional parts.

Replacing Licensed Programs, Automatic or Manual Install Process

If you are replacing your existing software, use one of the procedures in the Replacing a Release section of this book. You should be aware of the similarities and differences between the two installation methods in this section. You should also understand how support for mixed releases of licensed programs can affect the results of these installation procedures. Topic "Mixed Release Support-Overview" on page 1-4 describes the impact that mixed release support has when you replace a release of software.

The *automatic installation* method replaces your existing release with minimal user interaction. (You may need to load media volumes when you use this method.) The language feature code on the distribution media is installed as the primary language on the system. The automatic installation process keeps the current environment (AS/400 or System/36 Environment), system values, and configuration. The automatic installation process is recommended for use with most AS/400 systems. Chapter 4, Replacing a Release Using Automatic Installation, documents this method.

The *manual installation* method interactively replaces your existing release by using the Work with Licensed Programs (LICPGM) menu. Displays that require responses appear on the console. During a manual installation you can change installation options and perform tasks such as those described in "When to Use Manual Installation" on page 3-22. Chapter 5, Replacing a Release Using Manual Installation, documents this method.

What Installs with Either Method: Both installation methods replace your currently installed level of Licensed Internal Code and Operating System/400. Both installation methods can replace your currently installed licensed programs if the LICPGM menu on the target release supports those licensed programs. If you use the Prepare for Install option on the LICPGM menu to customize an installation list, the system also installs any additionally selected products.

What Does Not Install with Either Method: In certain conditions, some licensed programs are not installed during procedures that replace a release.

- When the distribution media contains non-renewed licensed programs that are at the same level as the licensed programs that you have installed, the installed licensed programs remain unchanged. This preserves any program temporary fixes (PTFs) that are applied to the currently installed licensed programs. See "Mixed Release Support-Overview" on page 1-4 for more information about mixed releases licensed programs.

- If you do <u>not</u> use the Prepare for Install option of the LICGPM menu, procedures that replace an existing release do <u>not</u> install new licensed programs or new optional parts. Licensed programs and optional parts are considered *new* if they are being added to your system for the first time, or if they have just been introduced. New licensed programs and new optional parts can be introduced

with a new release of the operating system or independently of it. If you do not use the Prepare for Install option, you need to use Chapter 9, Installing Additional Licensed Programs to install new licensed programs or optional parts. The instructions for both automatic and manual installation methods direct you to Chapter 9 at the appropriate time.

Adding Licensed Programs

If you are adding additional licensed programs or optional parts of licensed programs, you use Chapter 9, Installing Additional Licensed Programs. The chapter uses option 11 (Install licensed programs) of the Work with Licensed Programs (LICPGM) menu. When you use option 11, you select licensed programs or optional parts from a list. Typically, you use option 11 when you need to install a new licensed program or to replace a single licensed program. The licensed program or optional part that you select is <u>always</u> installed from the media. If the licensed program is already installed, it is replaced. This is true even when both the system and the media have the same level of the licensed program. (When you install a level of a licensed program over the same level that is already on your system, any PTFs you had applied to the licensed program may need to be applied again.)

Beginning in Version 4, you can add new licensed programs to your system while replacing a release of software if you use the Prepare for Install option of the Work with Licensed Programs menu. Refer to "Prepare for Install-Overview" on page 1-7 for information about how this option functions.

Adding or Changing the National Language Support

When you add a secondary language, you add additional language objects for the licensed programs that are installed on your system. These additional language objects are a different national language version (NLV) than the system's primary language. Chapter 10, Installing a Secondary Language, adds language objects for all of the installed licensed programs.

When you change the primary language you replace the existing language objects, and, depending on the procedure that is used, you could also be replacing program objects. Chapter 8, Changing Your Primary Language Using Secondary Language Media, replaces only the language objects that exist on your system. See the topic "Planning for National Language Support" on page 3-23 for more information.

Mixed Release Support-Overview

AS/400 mixed release support is an approach to managing software delivery that makes it possible for IBM-supplied distribution media to deliver whole or parts of licensed programs at existing releases along with a new release of OS/400. Existing licensed programs that are enabled for mixed release support but which have no new function are not renewed with a new release of the operating system. Similarly, optionally installable parts of licensed programs that are enabled for mixed release support but which have no new function are not renewed with each new release of its base licensed program. Also, enabled licensed programs can deliver product options at new releases or modifications along with or independently of the existing release of the base licensed program or OS/400.

The installation procedures you use to replace a release of software may produce a different result than in past releases. The effect of mixed release support is easiest to illustrate when describing the manual installation process, which uses the

LICPGM menu. When you use automatic installation, you do not select options from the LICPGM menu. However, the system uses a default installation profile and replaces licensed programs the same way as if you used the manual installation process (Chapter 5).

Note: If you use a different installation profile with automatic installation, or if you use a different install option with manual installation, your results may be different than described here. "Manual Install Options" on page B-1 provides more information about install options. For more information about using different installation profiles, refer to the book *Central Site Distribution*, SC41-5308 .

When you select option 1 from the LICPGM menu you see the Manual Install display. This display, which is shown in Figure 1-2, prompts you to select values for the *Install option* and *Replace if current* fields.

```
LICPGM                    Work with Licensed Programs
                                                          System: XXXX
Select one of the following:

  Manual Install
      1. Install all
```

```
                              Manual Install
                                              System:      XXXXXX
Type choices, press Enter.

    Install option . . .   _            1=Installed products
                                        2=All products
                                        3=New products
                                        4=Installed and
                                            additionally selected products

    Installation device    _____     Name

    Replace if current     _            Y=Yes
                                        N=No

    Automatic IPL  . . .   _            Y=Yes
                                        N=No
```
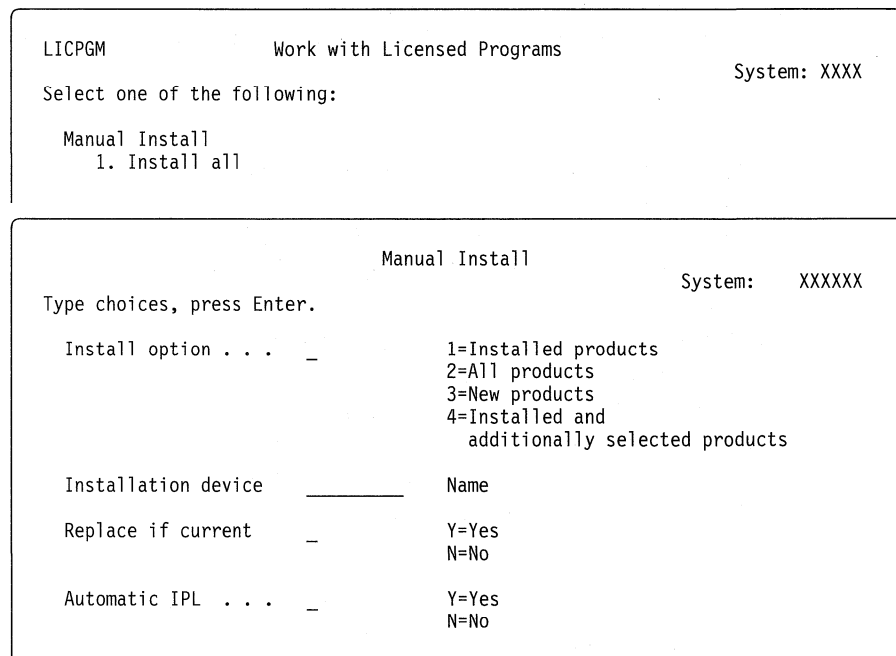
Figure   1-2. LICPGM Menu, Selecting Option 1.

The *Install option* prompt determines which products on the installation media will be installed. The value *1=Installed products* is used when replacing a release of software. This value causes the installation process to install from the media only those licensed programs that already exist on your system. If the release level of the licensed program on your system is compatible with the installed operating system, the installation process could replace the licensed program. This replacement occurs if there is a more recent level on the media. The replacement also occurs if you specify Yes for the value of the *Replace if current* prompt.

Values *2=All products* and *3=New products* for the Install option prompt are not used in the automatic and manual installation procedures.

The value *4=Installed and additionally selected products* only appears on the display when information about additionally selected products is available on the system. Choose this option if you are installing a new release of software and you selected additional products to install. (You selected additional licensed programs to

install by using the Prepare for install option of the LICPGM menu to create a customized list.) When this value is selected, existing licensed programs are handled the same way as if you specified *1=Installed products*. If you use automatic installation, the system uses the list of selected products if it exists on the system. If you use manual installation, you must select *4=Installed and additionally selected products* to allow the system to use the list.

The *Replace if current* prompt determines whether the installation process will replace existing licensed programs when the same level of software is found on the installation media. The default value is No. If you specify Yes, the installation process will replace the existing product with the media copy which is at the same level.

Table 1-1 compares the release level of the installed product and the level that is on the media and shows the resulting installation action when the default is used for the *Replace if current* prompt and the *Install option* equals either 1 or 4. Table 1-1 includes examples of the media that contain both licensed programs that renewed and did not renew with the new release (V4R2M0) of the operating system.

Table 1-1 (Page 1 of 2). Result of Mixed Release Support When Replacing Licensed Programs. This table shows the resulting level of licensed programs that are installed when you use procedures that replace a release of software. When an x is shown, it represents all valid modification levels.

Licensed Program Currently Installed	Licensed Program On the Installation Media	Installation Action[2]
V3R1M0	V3R1M0	None
	V3R1M1; or V3R1M1 and V3R1M0 [1]	Installs V3R1M1
	V3R6M0; or V3R6M0 and V3R1Mx [1]	Installs V3R6M0
	V3R7M0; or V3R7M0 and V3R6M0 or V3R1Mx [1]	Installs V3R7M0
	V4RxMx; or V4RxMx and V3RxMx [1]	Installs V4RxMx
V3R2M0	V3R1Mx	None
	V3R2M0	None
	V3R7M0; or V3R7M0 and V3R1Mx [1]	Installs V3R7M0
	V4RxMx; or V4RxMx and V3RxMx [1]	Installs V4RxMx
V3R7M0	V3R6M0; or V3R6M0 and V3R1Mx [1]	None
	V3R7M0; or V3R7M0 and V3R6M0 or V3R1Mx [1]	None
	V4RxMx; or V4RxMx and V3RxMx [1]	Installs V4RxMx
V4R1M0	V3RxMx	None
	V4R1M0; or V4R1M0 and V3RxMx [1]	None
V4R2M0	V3R2M0	None
	V3R7M0; or V3R7M0 and V3R1Mx [1]	None
	V4RxMx; or V4RxMx and V3RxMx [1]	Installs V4RxMx
		Installs V4RxMx

Table 1-1 (Page 2 of 2). Result of Mixed Release Support When Replacing Licensed Programs. This table shows the resulting level of licensed programs that are installed when you use procedures that replace a release of software. When an x is shown, it represents all valid modification levels.

Licensed Program Currently Installed	Licensed Program On the Installation Media	Installation Action[2]

Notes:

1. The system analyzes the first copy of a licensed program found on the installation media. If the first copy is compatible and has a higher level (VxRyMz) than the currently installed licensed program, the first copy on the media is installed. If the first copy is not a higher level, it is not installed and any additional copies on the media are ignored. It is important that you use the installation media in the order described in Table 3-5 on page 3-14. For IBM-supplied distribution media used in the correct order, whenever the highest level (VxRyMz) on the media is higher than what is installed on your system, the highest level that is on the media is installed.

2. This installation action assumes that No is specified for the value of the *Replace if current* prompt.

Prepare for Install-Overview

Program temporary fixes (PTFs) for V3R7M0 and V4R1M0 allow you to use new function as you get ready to install V4R2M0. These PTFs are not required if you are replacing V4R2M0. This topic describes the function and how it can help you. Instructions for installing the PTFs are described in "Program Temporary Fixes Required Before Installing V4R2M0 Software" on page 3-10. Other topics in this chapter describe how to use the function.

Highlights of this function include the following:

- You can customize an installation list. You can select new licensed programs or options to be installed during the automatic installation process.

- It is easier to verify the contents of the media before starting an installation.

- It is easier to determine additional storage requirements for the licensed programs that you plan to install.

After the PTFs are applied to V3R7M0 or V4R1M0, the new function appears as option 5 (Prepare for Install) on the Work with Licensed Programs menu. The Prepare for Install display appears when you select this option.

```
                              Prepare for Install
                                                     System:    XXXXXXXX
      Type option, press Enter.
        1=Select

      Opt     Description
        _     Work with user profiles
        _     Work with licensed programs for target release
        _     Display licensed programs for target release
        _     Work with licensed programs to delete
        _     List licensed programs not found on media
        _     Verify system objects
        _     Estimated storage requirements for system ASP




                                                                  Bottom
      F3=Exit    F9=Command line    F10=Display job log    F12=Cancel
```

With the **Work with user profiles** option, you can work with a list of user profiles on the system and work with the objects owned by each user profile. Use this option to clean up user profiles that are no longer needed on the system before you install the target release. Refer to "Cleaning Up User Profiles" on page 3-19.

With the **Work with licensed programs for target release** option, you can work with a list of the licensed programs for the target release. Use this option to verify the contents of the installation media and to create a customized list of licensed programs to install for the target release. The system can use the list you create to allow the installation processes that replace a release of software to <u>also</u> install the selected additional licensed programs. Refer to "Verifying Your Software Order" on page 3-13.

With the **Display licensed programs for target release** option, you can display the list of licensed programs that will be installed when you install the target release. For each licensed program in the list, you can display information such as the expected action during the installation process and, whether a product option must be separately ordered. Use this option to verify your installation plans.

With the **Work with licensed programs to delete** option, you can work with a list of installed licensed programs that should not remain on the system because either they are no longer supported or you chose not to replace them. This list also includes products for which no replacement was found on the distribution media. The display indicates the reason why a licensed program is included in this list, as well as save and delete any of the products listed. Refer to "How to Delete Licensed Programs During Clean Up" on page 3-18.

With the **List licensed programs not found on media** option, you can display a list of licensed programs that could replace existing products but that were not found on the CD-ROM distribution media. Refer to "Verifying Your Software Order" on page 3-13.

With the **Verify system objects** option, the system verifies that the system direc-tory entries include the user profiles needed by the installation process. The system also checks database cross reference files for errors. If necessary, the QSECOFR and QLPINSTALL user profiles are added to the system distribution directory. Refer to "Verifying User Profiles and Checking Cross Reference Files" on page 3-32.

With the **Estimate storage requirements for system ASP** option, you can deter-mine if additional storage is needed before you begin the installation process.

Chapter 2. Where to Begin

Use this chapter to determine which sections of this manual you need to use to install V4R2M0 licensed programs on your AS/400e system.

Table 2-1 (Page 1 of 2). Supported Releases for Software Upgrades		
Release of OS/400		
Currently Installed (Source) Release	**Valid Target Releases(1)**	**Should You Use this Book?**
V4R1M0	V4R2M0	**Yes**. You can use this book to <u>replace</u> the installed operating system and licensed programs. Your system already runs on the PowerPC architecture.
V3R7M0	V4R2M0 V4R1M0	
		You can use this book to install a <u>new</u> V4R2M0 system only under certain conditions. If either of the following are true, you <u>cannot</u> use this book: • You plan to move an existing AS/400 that is at an earlier release level of OS/400 (V3R2M0, V3R1M0, V3R0M5, or V2R3M0), to your new AS/400. • You ordered your new AS/400 using hardware feature code 0203 or 0204.
V3R6M0	V4R1M0 V3R7M0	**No**. Do not use this book. You cannot upgrade directly from V3R6M0 to V4R2M0. You must first upgrade to V3R7M0 or V4R1M0.
V3R2M0	V4R2M0 V4R1M0 V3R7M0	**No**. Do <u>not</u> use this book to replace these releases. If you have any of these release levels currently installed, your system must be upgraded to PowerPC architecture at the same time that you install V4R2M0 software. Go to the *AS/400 Road Map for Changing to PowerPC Technology,* SA41-5150 , book. This book is part of the licensed program offering 5798-TBU, CISC to RISC Upgrade Kit. You cannot upgrade directly from V2R3M0 or V3R0M5 to V4R2M0 software. If you have either of these releases installed, you have the following choices: • Upgrade to V3R2M0 software first, then perform the CISC to RISC upgrade to V4R2M0. • Perform the CISC to RISC upgrade to V3R7M0 first, then upgrade to V4R2M0 software. Upgrades from V2R3M0 to V3R7M0 are not supported.
V3R1M0	V4R1M0 V3R7M0 V3R6M0 V3R2M0	
V3R0M5	V3R7M0 V3R6M0 V3R2M0 V3R1M0	
V2R3M0	V3R6M0 V3R2M0 V3R1M0 V3R0M5	

Table 2-1 (Page 2 of 2). Supported Releases for Software Upgrades		
Release of OS/400		
Currently Installed (Source) Release	**Valid Target Releases(1)**	**Should You Use this Book?**
V3R0.7		Version 3 Release 0 Modification 7 (V3R0.7) is an identifier for Licensed Internal Code used on AS/400 Advanced 36 systems. For more information, refer to: • Advanced 36 Read This First, and • Memo to IBM SSP Release 7.5 Users.

Notes:

1. This table shows the only supported combinations for source and target releases. You may no longer be able to order some of the target releases shown in this table.

2. If you want to upgrade to a release that is not supported from your currently installed release, you have two options. You can upgrade to one of the target releases that is valid, then you can upgrade to the desired release. For example, a direct path from V2R3M0 to V4R1M0 is not supported, but you could upgrade from V2R3M0 to V3R2M0, then from V3R2M0 to V4R1M0. Or, you can contact your software service provider and inquire about special services.

Table 2-2. Checklist for Replacing a Release	
Replacing a Release with V4R2x	
Activity	**Information Needed**

Are you replacing an installed level of V3R7M0 or V4R1M0 software?	Use these chapters in the following order:
	
	1. Chapter 3, Preparing to Install Software.
	
	2. One of the chapters within the part Replacing a Release.
	
	  • Chapter 4, Replacing a Release Using Automatic Installation.
	
	    Automatic installation is recommended, however there some circumstances where you must use Chapter 5, Replacing a Release Using Manual Installation. Read "Choose Manual or Automatic Installation" on page 3-22 to determine if you must use manual installation.
	
	  • Chapter 5, Replacing a Release Using Manual Installation.
	
	3. You may need to complete one or both of the following:
	
	  • Chapter 9, Installing Additional Licensed Programs.
	
	  • Chapter 10, Installing a Secondary Language.
	
	4. Chapter 11, Checklist for Completing the Installation.

Table 2-3. Checklist for Installing Software on a New System

Installing a New AS/400 System

Activity	Information Needed

Are you installing a new AS/400 system that has the operating system already installed in your primary language?	Use these chapters in the following order:
	
	1. Chapter 3, Preparing to Install Software.
	
	2. Chapter 6, Installing a New AS/400 System with the Operating System Already Installed.
	
	  You can use the automatic installation process to install a new AS/400 system. However, you cannot change any system options during the installation process.
	
	3. You may need to complete one or both of the following:
	
	  • Chapter 9, Installing Additional Licensed Programs.
	
	  • Chapter 10, Installing a Secondary Language.
	
	4. Chapter 11, Checklist for Completing the Installation.

Are you installing a new AS/400 system that has the operating system already installed in a language that is not your primary language?	Use the checklist below for Installing a New AS/400 System on page 2-3. ↓

Are you installing an AS/400 system that <u>does not</u> have the operating system installed?	Use these chapters in the following order:
	
	1. Chapter 3, Preparing to Install Software.
	
	2. Chapter 7, Installing a New AS/400 System without the Operating System Installed.
	
	3. You may need to complete one or both of the following:
	
	  • Chapter 9, Installing Additional Licensed Programs.
	
	  • Chapter 10, Installing a Secondary Language
	
	4. Chapter 11, Checklist for Completing the Installation.

Table 2-4. Checklist for Installing a Cumulative PTF Package

Installing a Cumulative Program Temporary Fix (PTF) Package

Activity	Information Needed
Are you loading and applying a cumulative PTF package to your system?	Go to the *AS/400 PTF Shipping Information Letter* that you received with the cumulative PTF tapes for instructions to install a PTF cumulative package.

Table 2-5. Checklist for Adding Licensed Programs and Secondary Languages	
Installing Additional Licensed Programs and Secondary Languages	
Activity	**Information Needed**
Are you installing only additional licensed programs or optional parts of licensed programs to your existing V4R2x system? An example would be if you are adding a new licensed program or a new optional part of an licensed program that was shipped independently of the operating system.	Use these chapters in the following order: 1. Chapter 3, Preparing to Install Software. 2. Chapter 9, Installing Additional Licensed Programs. 3. If you have a secondary language installed and you want to have NLS support for the added licensed program, you need to use Chapter 10, Installing a Secondary Language 4. Chapter 11, Checklist for Completing the Installation.
Are you only installing a secondary language?	Use these chapters in the following order: 1. Chapter 3, Preparing to Install Software. 2. Chapter 10, Installing a Secondary Language. 3. Chapter 11, Checklist for Completing the Installation.
Are you installing additional licensed programs or secondary languages to your system as part of replacing a release?	The procedures for replacing a release direct you to add additional licensed programs and secondary languages at the appropriate time. Use the checklist in Table 2-2 on page 2-2.
Are you installing additional licensed programs or secondary languages to your system as part of installing a new system?	The procedures for installing a new system direct you to add additional licensed programs and secondary languages at the appropriate time. Use the appropriate checklist from Table 2-3.

Table 2-6 (Page 1 of 2). Checklist for Changing the Primary Language	
Changing the Primary Language	
Activity	**Information Needed**
Are you changing your primary language using your secondary language media?	Use these chapters in the following order: 1. Chapter 3, Preparing to Install Software. Be sure to read "Considerations When Changing a Primary Language" on page 3-23. 2. Chapter 8, Changing Your Primary Language Using Secondary Language Media. 3. Chapter 11, Checklist for Completing the Installation.

Table 2-6 (Page 2 of 2). Checklist for Changing the Primary Language

Changing the Primary Language	
Activity	**Information Needed**

Are you changing your primary language from a DBCS primary language to an SBCS primary language or an SBCS primary language to a DBCS primary language?
 	
Or,
 	
Are you replacing a release with V4R2x and also want to change your primary language?
	Use these chapters in the following order:
	1. Chapter 3, Preparing to Install Software.
	   Note: Be sure to read "When to Use Manual Installation" on page 3-22 and "Considerations When Changing a Primary Language" on page 3-23.
	2. Chapter 5, Replacing a Release Using Manual Installation.
	3. You may need to complete one or both of the following:
	   • Chapter 9, Installing Additional Licensed Programs.
	   • Chapter 10, Installing a Secondary Language.
	4. Chapter 11, Checklist for Completing the Installation.

Are you installing a new AS/400 system and want to change the primary language? Or, Are you only changing your primary language?	Use the checklist for Installing a New AS/400 System on page 2-3 (Table 2-3). **Note:** Be sure to read "Considerations When Changing a Primary Language" on page 3-23.

Table 2-7 (Page 1 of 2). Checklist for Adding a New Disk Unit

Adding a New Disk Unit to a New System	
Activity	**Information Needed**

Are you adding a new disk unit to your <u>new</u> AS/400 system?	You may have ordered your system with a minimum amount of DASD. In this case, you should reinstall the operating system to improve system performance and you may need to install licensed programs.
	
	Note: If you are using mirrored protection, device parity protection, or auxiliary storage pools, refer to the information on working with auxiliary storage pools in the *Backup and Recovery*, SC41-5304 book before you begin.
	
	Use these chapters in the following order:
	1. Chapter 3, Preparing to Install Software.
	2. Chapter 7, Installing a New AS/400 System without the Operating System Installed.
	3. You may need to complete one or both of the following:
	   • Chapter 9, Installing Additional Licensed Programs.
	   • Chapter 10, Installing a Secondary Language
	4. Chapter 11, Checklist for Completing the Installation.

Table 2-7 (Page 2 of 2). Checklist for Adding a New Disk Unit

Adding a New Disk Unit to a New System	
Activity	**Information Needed**
Are you adding a new disk unit to your <u>existing</u> AS/400 system?	**Note:** If you are using mirrored protection, device parity protection, or auxiliary storage pools, refer to the information on working with auxiliary storage pools in the *Backup and Recovery*, SC41-5304 book before you begin.
	Use these chapters in the following order:
	1. Chapter 3, Preparing to Install Software.
	2. Chapter 5, Replacing a Release Using Manual Installation.
	3. You may need to complete one or both of the following:
	• Chapter 9, Installing Additional Licensed Programs.
	• Chapter 10, Installing a Secondary Language.
	4. Chapter 11, Checklist for Completing the Installation.

Table 2-8. Checklist for Installing a Hardware Upgrade

Installing a Hardware Upgrade	
Activity	**Information Needed**
Are you installing a hardware upgrade at the same time as you are installing V4R2x or licensed programs?	Refer to the book *System Upgrade Road Map (RISC to RISC)*, SA41-5155 . At the appropriate point in the upgrade, you are directed to use procedures in this book to install the operating system and licensed programs. You may also receive additional instructions with the upgrade package.
Are you installing a hardware upgrade to move your system to PowerPC technology?	Upgrading to a PowerPC AS processor requires a simultaneous hardware and software upgrade using the *AS/400 Road Map for Changing to PowerPC Technology*, SA41-5150 book. Refer to the table of supported releases on 2-1.

Always begin by reading the planning material as noted in Chapter 3, "Preparing to Install Software" on page 3-1.

Chapter 3. Preparing to Install Software

Careful and complete early planning saves a considerable amount of time and can help to make the actual installation process run smoothly. Complete the procedures in this chapter before scheduling your installation.

Installation Planning Checklist

The following list contains tasks that can be done days or a few weeks before you schedule the installation of your new release on your system. Check off the tasks as you complete them so you do not overlook any of them. More information about each task is included later in this section, starting at the page indicated.
Appendix E, Additional Installation Information, provides useful general information.

___ 1. Ensure that your system meets the requirements for V4R2M0 software. Refer to "System Requirements for V4R2M0" on page 3-2. You must complete this step to ensure that you can install the V4R2M0 software release.

___ 2. Clean your system of items you no longer use. Also, apply any PTFs that you need. You should perform this clean up step before you perform step 5. Refer to "Cleaning Up Your System" on page 3-4.

___ 3. Review the *Memo to Users* for potential incompatibilities with V4R2M0 software. Also locate additional documents that you may need to use. Refer to "Locate and Review Information" on page 3-5.

___ 4. If you use your system in a network, refer to "Evaluate Release-Level Interoperability" on page 3-8.

___ 5. Apply program temporary fixes (PTFs) that are required before installing V4R2M0 software. You must do this step. Complete it several days <u>before</u> you install V4R2M0. It ensures that you can install the V4R2M0 software release. Also permanently apply existing PTFs. Refer to "Program Temporary Fixes Required Before Installing V4R2M0 Software" on page 3-10.

___ 6. Verify that you received all of the software you ordered and create a customized installation list. Refer to "Verifying Your Software Order" on page 3-13 and "Creating and Customizing an Installation List" on page 3-15

___ 7. Clean your system of items you no longer use. You should do this before you estimate your storage needs for the new release. Refer to "Using Prepare for Install to Clean Up Your System" on page 3-18.

___ 8. Determine if you have adequate storage to install the new software. Refer to "Evaluating Your Disk Storage Needs" on page 3-20.

___ 9. If you are replacing a release of software, choose which installation procedure you will use. Refer to "Choose Manual or Automatic Installation" on page 3-22.

___ 10. If you are changing the primary language of the system or adding a secondary language, refer to "Planning for National Language Support" on page 3-23.

___ 11. If you are installing the softcopy library on AS/400, refer to "Prepare to Install Softcopy Information" on page 3-25.

__ 12. Estimate the amount of time you need to install this release of software. Refer to "Estimating Installation Time" on page 3-26.

__ 13. Gather performance information about your current system to use a checkpoint for future comparison. Refer to "Gathering Performance Information" on page 3-27.

__ 14. If several weeks have passed since you received your software distribution media, check to see if you have the latest cumulative PTF package for V4R2M0. You should also get the latest HIPER PTFs. Refer to "Ordering the Current Cumulative Package" on page 3-29.

__ 15. If you have made changes to IBM-supplied objects, you need to identify the changes and take appropriate action. Some job-description and sub-system customization can be kept. Refer to "Identifying Changes to IBM-Supplied Objects" on page 3-29.

__ 16. If your system participates in a network, resolve any database resynchronizations that are pending. Refer to "Ensuring Two-Phase Commit Integrity" on page 3-31.

__ 17. If you use a 3995 optical library, check for and resolve any held optical files. Refer to"3995 Optical Library Users" on page 3-32.

__ 18. Verify the integrity of system objects that are needed by the installation process. Refer to "Verifying the Integrity of System Objects" on page 3-32.

__ 19. Ensure that you know how to operate any hardware devices which you will be using during the upgrade. Refer to "Basic System Hardware Considerations" on page 3-33.

__ 20. Change any system values as needed for the installation process. Refer to "Setting System Values Before Installing" on page 3-36.

__ 21. Save the system to ensure that you can perform a recovery if needed. Refer to "Save the System" on page 3-37.

When you have completed these planning tasks, you will be ready to start your installation.

System Requirements for V4R2M0

If you are upgrading from V4R1M0 to V4R2M0, you can continue to the next planning step, "Cleaning Up Your System" on page 3-4. In a later step, the Prepare for Install option will help you to determine if you have enough storage to complete the installation.

If you are upgrading from V3R7M0, the system requires the following before the V4R2M0 operating system can be installed:

- 64MB of main storage

- At least 540MB (0.54GB) free space in the system auxiliary storage pool (system ASP)

  Note: You need to ensure that the system meets the capacity requirements for main storage and for free space in the system auxiliary storage pool. These requirements must be met before you can apply the Installation Preparation PTFs for V4R2M0 Software.

- Installation Preparation PTFs for V4R2M0 Software.

The Installation Preparation PTFs for V4R2M0 Software are program temporary fixes (PTFs) that reserve additional space for V4R2M0 Licensed Internal Code. The V4R2M0 preparation PTFs **must** be permanently applied to V3R7M0 before you can successfully install V4R2M0. This requires that you perform an IPL(initial program load). The V4R2M0 preparation PTFs are shipped with your software distribution media. "Program Temporary Fixes Required Before Installing V4R2M0 Software" on page 3-10 describes how to apply and verify these PTFs.

Do not install the PTFs that reserve space for the V4R2M0 Licensed Internal Code until you ensure that you have adequate disk space in the system ASP.

Verifying the Main Storage Requirement

Type the command DSPHDWRSC TYPE(*PRC) and press the Enter key. The Display Processor Resources display appears. Look for main storage cards that have a status of operational. Each entry indicates the amount of main storage on the card. If the sum of these values does not equal or exceed 64MB, you need to order and install additional memory before installing V4R2M0.

Verifying the Storage Capacity Requirement

Type the command WRKSYSSTS and press the Enter key. The Work with System Status display appears.

```
                        Work with System Status                    SYSTEMA
                                                    03/19/97   15:56:29
% CPU used . . . . . . . :       1.2    Auxiliary storage:
Elapsed time . . . . . . :   00:03:11     System ASP . . . . . . :     4.12 G
Jobs in system . . . . . :       851      % system ASP used  . . :   85.0000
% addresses used:                         Total  . . . . . . . . :     4.12 G
  Permanent  . . . . . . :      .007      Current unprotect used :     132 M
  Temporary  . . . . . . :      .010      Maximum unprotect  . . :     184 M
```

The system needs at least 540MB (0.54GB) free space in the system ASP. Table 3-1 shows sample configurations that would meet this requirement.

Table 3-1. Samples systems that meet the system ASP capacity requirement	
Size of System ASP	**% of System ASP Used**
3GB	82%
4GB	86.5%
8GB	93.25%

You can calculate the available free space with the following formula:

Free space = System ASP x (100 − % system ASP used) x 0.01

For example:
0.618GB = 4.12GB x (100 − 85.0) x 0.01

You can make more capacity available by cleaning up your system as described in "Cleaning Up Your System" on page 3-4. You can also make more capacity available by deleting unneeded main store dumps, adding disk units, or moving unused disk units from user ASPs to the system ASP. The book *Backup and Recovery*,

SC41-5304 describes how to work with ASPs and disk units. Check your resources again with the WRKSYSSTS command after you take any action to increase the available capacity.

This completes this planning topic.

Cleaning Up Your System

Cleaning up your system before you begin to install a new release makes more storage space available for the installation process. Refer to the information on keeping your AS/400 system running smoothly in the *System Operation*, SC41-4203, book to clean up your system. If you are upgrading from V4R1M0, use the book *Basic System Operation, Administration, and Problem Handling*, SC41-5206.

Consider the following things that you can do to clean up your system and make more disk space available:

- You can use the automatic cleanup option in Operational Assistant* to keep your system free of unnecessary clutter.

- You should permanently apply any PTFs that are temporarily applied on your system if you have not already done so. (See "Permanently Apply Program Temporary Fixes (PTFs).")

- Delete PTF save files and cover letters that are no longer needed.

- Delete any "try and buy" software applications from your system.

- You should delete licensed programs or optional parts that you no longer use. Refer to "How to Delete Licensed Programs During Clean Up" on page 3-18. Be sure to read "Notes About Deleting Licensed Programs" on page C-8 for additional information.

- Have each user clean up the objects that are owned by their user profiles. Delete any user profiles that you no longer need. Refer to "Cleaning Up User Profiles" on page 3-19.

- If you have not already done so, delete the enrollment for any user who is no longer with your organization or who is no longer using OfficeVision functions. Also, delete old mail, calendars, documents, and folders that you no longer need. For information about how to do these things, see the *Managing OfficeVision/400*, SH21-0699, book.

Permanently Apply Program Temporary Fixes (PTFs)

Temporarily applied PTFs require a considerable amount of disk storage space. You should permanently apply any temporarily applied PTFs to maximize the available disk space on your current system. Do this only for products and temporarily applied PTFs that you have verified on your system.

When a new release is installed, the installation process overwrites the PTFs applied to the previous release. The PTFs for the previous release are no longer applied, but there may be associated objects that remain on the system and take up disk storage space. When you use Operational Assistant and choose to clean up system journals and system logs, PTF save files from previous releases are deleted from your system. However, for systems that have the System Manager for AS/400 licensed program installed, the PTF save files are not deleted.

Notes:

1. Information on applying immediate PTFs temporarily or permanently is available in the *Basic System Operation, Administration, and Problem Handling*, SC41-5206, book in the chapter on working with PTFs.

2. If you have SystemView System Manager/400 licensed program (5769-SM1) installed on your system, use the instructions in the *System Manager Use*, SC41-5321 , book for managing PTFs on your system.

Apply Program Temporary Fixes for Client Access Products

If you have Client Access for Windows 3.1 (licensed program 5763-XC1) installed, you may need to apply a PTF to ensure that you can use the update function. The update function downloads fixes to workstations. Do the following before installing the new release of OS/400:

1. Verify that Client Access is not active on the system.

2. If you have the V3R1M1 level of 5763-XC1 installed, you do not need to apply these PTFs. You do not need to use this procedure. If you have the V3R1M0 level installed, continue with the next step.

3. Check to see if the following PTF (or a PTF that supersedes it) is applied. If the PTF is installed, no additional action is needed. If the PTF is not applied, continue with step 4.

   The 5763-XC1 V3R1M0 PTF is:

   ```
   SF23392 for SBCS
   SF23675 for DBCS
   ```

4. Apply the PTF.

5. Make sure that each workstation using this client runs the update function to download the fixes that you applied. Refer to the Client Access documentation if you need information on how to run the update function.

Continue with your planning for installing software. When the software upgrade is complete, be sure to install the cumulative PTF package.

This completes this planning topic.

Locate and Review Information

You need to review several sources of information as you plan for and install your new software. This book is your first source of information. This topic describes other documents you need, why you need them, and where to locate them.

Documents That Are Shipped With Your New Software Release

The following documents are shipped with the distribution media for your new V4R2M0 software. You need to use these documents to plan parts of your installation process. Read the material that applies to your system.

- *Memo to Users Version 4* and *Read This First*

  These two documents provide information about situations that could potentially affect system operations or software installation.

The *Memo to Users* describes <u>only</u> significant changes in the new release that could potentially affect your programs or system operations. Use the *Memo to Users* to prepare for changes on the release and to use the new release. Be sure to read each section that pertains to licensed programs that you currently have installed or plan to install on your system. This document is also referred to as the *Memorandum to Application System/400* Users* or the *Memo to AS/400 Users*.

The *Read This First* contains information that was not available for publication in the *Memo to Users* or this book. You should read this document before installing this release.

The *Memo to Users* and *Read This First* are now available to customers that use electronic customer support. You can order these documents for V4R2M0 by specifying this program temporary fix (PTF) number: SNDPTFORD SF98026.

If you are skipping a release level of OS/400, you should also order the *Memo to Users* and *Read This First* for the release that you are skipping. This will ensure that you are aware of changes that occured in skipped release that could also affect your programs and system operations. You can order these documents by specifying appropriate program temporary fix (PTF) number:

Skipped Release	Command to Order PTF
V3R7M0	SNDPTFORD SF98086
V4R1M0	SNDPTFORD SF98016

- Media Description Report

  A media description report lists the contents of the distribution media for AS/400. You receive a report for priced licensed programs and priced features of the operating system. If you order other software products such as Programming Request for Price Quotations (PRPQs) or licensed program offerings (LPOs), you receive separate reports. Be sure to save a copy of these reports. They are the only lists that tell you what licensed programs or priced features were shipped on your distribution media. You may need to refer to these reports when you verify your software order.

- AS/400 PTF Shipping Information Letter

  This letter contains the instructions for installing the cumulative program temporary fix (PTF) package. The letter and the cumulative PTF package ship with the software media for the new release. Installing the cumulative PTF package is highly recommended.

- Individual product documentation

  You may have received additional letters to users for individual products. Such material may contain information unique for that product that could affect its installation. Be sure to check these additional sources. When you install a product for the first time, you may need to customize the product or complete additional actions before the product works. Look for this type of information in the product publications.

"Prerequisite and Related Information" on page xiv describes other publications that may be useful.

Obtain the Latest Preventive Service Planning Information

You need the most recent cumulative package of the *AS/400 Preventive Service Planning Information*. The IBM software support center updates this information regularly. It provides the most recent information about conditions that could impede your software installation process.

There are multiple preventive service planning documents, categorized by topic. We recommend that you review at least the software installation document and the general document for the release of the operating system. The general document lists topics that are covered in additional preventive service planning information documents that you may want to order if they apply to your system.

You can order the preventive service planning documents through electronic customer support:

PSP Document	Command to Order PTF
General document for the release	SNDPTFORD SF98vrm V is for the version, r is the release, and m is the modification level of OS/400.
V4R2M0 software installation	SNDPTFORD SF98020

If you do not have access to electronic customer support, contact your software support provider to obtain this information. Information about displaying and printing preventive service planning documents is available in the book *Basic System Operation, Administration, and Problem Handling*, SC41-5206.

If you need PTFs for a release before you install it, the best way to do so is to place a voice order with IBM service. This ensures that you will receive all the required requisite PTFs as well.

Appendix E, "Additional Installation Information" on page E-1 contains information about testing and setting up electronic customer support.

Cross-Reference Summaries for Program Temporary Fixes (PTFs)

Cross-reference summaries for PTFs are available through electronic customer support. The summaries allow you to analyze the PTFs and Licensed Internal Code fixes you currently have installed on your system. With this information, you can determine which V4R2M0 fixes you need to order to maintain the same or higher PTF (program temporary fix) and Licensed Internal Code fix level as you update to the new level of software. These summaries are updated each working day with the latest information as new V4R2M0 PTFs and Licensed Internal Code fixes are released. Table 3-2 shows the commands for ordering these summaries through electronic customer support.

Table 3-2 (Page 1 of 2). Ordering PTF Cross-Reference Summaries

If you are moving from	Enter this command
V3R2M0	SNDPTFORD SF97022
V3R7M0	SNDPTFORD SF97051
V4R1M0	SNDPTFORD SF97056

Table 3-2 (Page 2 of 2). Ordering PTF Cross-Reference Summaries

If you are moving from	Enter this command

Notes:

1. If you are upgrading from V3R2M0 to V4R2M0, you should be using the book *AS/400 Road Map for Changing to PowerPC Technology*, SA41-5150.

Contact your software service provider to obtain this information if you do not have access to electronic customer support. Information about displaying and printing PTF cross-reference summaries is available in the book *Basic System Operation, Administration, and Problem Handling*, SC41-5206.

Appendix E, "Additional Installation Information" on page E-1 contains information about testing and setting up electronic customer support.

This completes this planning topic.

Evaluate Release-Level Interoperability

If you have several AS/400 systems in a network, they must be at compatible release levels. This is necessary if objects and data are to be interchanged between systems.

Note: Use option 10 (Display licensed programs) on the Work with Licensed Programs (LICPGM) menu to see the installed release of licensed programs. The display shows the release of installed licensed programs that were initially shipped with an operating system release or modification.

Use the Display Software Resources (DSPSFWRSC) command to see the release of licensed programs not initially shipped with an operating system release or modification.

Interoperability is the ability of one system to exchange data or objects with another system. The exchange can be performed electronically or by physical media (such as tape). Either system can initiate the exchange.

An AS/400 system interoperates with another AS/400 system when exchanging data or when saving and restoring objects. Table 2-1 on page 2-1 shows the supported combinations of releases.

Exchanging Data

The source system (the system that sends the information) and the target system (the system that receives the information) must be within the supported release levels. If the source system is V4R2M0, the system receiving information can be at V3R2M0, V3R7M0 or V4R1M0.

For example:

- OfficeVision/400* users on V4R2M0, V4R1M0, V3R7M0,and V3R2M0 systems can exchange mail with each other.

- Client Access users on V4R2M0 can exchange data with Client Access users on any V3R2M0, V3R7M0, or V4R1M0 host systems. Refer to the *AS/400 Client Access Family of Products*, G325-6336, book for more information about exchanging data with Client Access.

Note: A Client Access/400 user on V3R6M0 cannot access V3R2M0-level function.

- An application developer can send a source file, by using the Send Network File (SNDNETF) command, from a V4R2M0 system to a V3R2M0, V3R7M0 or V4R1M0 system.

- An application developer can send a source file, by using the SNDNETF command, from a V3R2M0 system to a V3R7M0, V4R1M0, or V4R2M0 system.

Saving and Restoring Objects

To be interoperable, objects must be saved by specifying either a specific release level or *PRV for the value of the target release (TGTRLS) parameter. Table 3-3 shows how to specify the value of TGTRLS for each target (receiving) system:

Table 3-3. Interoperability-Specifying Target Release

Source (Sending) System	Target (Receiving) System	Specify
V4R2M0	V4R1M0	TGTRLS(*PRV) or TGTRLS(V4R1M0)
	V3R7M0	TGTRLS(V3R7M0)
	V3R2M0	TGTRLS(V3R2M0)

Licensed programs can be saved and restored like other objects as long as the release level is compatible with the operating system release level. For more information about compatible levels of licensed programs, refer to Appendix C, "Licensed Program Information" on page C-1.

For more information on saving objects to a system running a previous release, see the chapter on release-to-release support in the *Backup and Recovery*, SC41-5304, book.

Program Temporary Fixes for Network Interoperability

To exchange objects in a network between systems running V3R7M0 or Version 4 systems running earlier releases, PTFs must be applied to the earlier systems. Objects created on V3R7M0 or Version 4 cannot be restored to earlier systems in the network until the PTFs are applied to the earlier systems. You can avoid this delay by ordering the needed PTFs and applying them now to the systems that will remain at earlier releases.

Use Table 3-4 on page 3-10 to determine which PTFs to order for the systems that remain at *earlier* release levels. You will receive several corequisite PTFs when you order any of the PTFs shown. These are needed for the following:

- Restoration of save files

- Database objects

- Journal receivers

- Program objects

- Objects that are associated with byte stream files:

  - Document objects (*DOC)

- Stream File objects (*STMF)
- Symbolic Link objects (*SYMLNK)

Table 3-4. PTFs for Earlier Systems in a Network to Enable Exchanging Data

Order this PTF	For System Remaining at Release
SF26145	V3R0M5
SF26146	V3R1M0
SF33467	V3R2M0

This completes this planning topic.

Program Temporary Fixes Required Before Installing V4R2M0 Software

Occasionally, specific program temporary fixes (PTFs) must be applied <u>before</u> you can start or complete software installation procedures. If you are upgrading from V3R7M0 to V4R2M0, you must permanently apply a PTF to extend the storage space that is reserved for Licensed Internal Code and for handling main store dumps. This PTF is shipped on a CD-ROM that ships with your V4R2M0 software media. For an upgrade from V3R7M0, you need to apply this PTF and perform an IPL to reserve the additional storage space <u>before</u> you plan to install V4R2M0.

Attention: New AS/400 systems with V4R2M0 installed or upgrades from V4R1M0 already have the storage reserved and do not need the Licensed Internal Code PTFs. Otherwise, all models of AS/400 require the additional reserved storage for Licensed Internal Code. On some models, this additional storage may be as much as 540MB. If you do not install the PTF for the Licensed Internal Code extension before installing V4R2M0, the system will prevent the installation from starting.

The CD-ROM also contains PTFs that allow you to use new function that assists you with preparing to install a new release of software. By applying these PTFs to your V3R7M0 or V4R1M0 system, you can use the new function as you prepare to install V4R2M0.

Installing and Verifying the Required Program Temporary Fixes

Use the following procedure to apply the appropriate PTFs to your system. You should ensure that you have adequately saved your system before and after you apply the PTFs.

Before You Apply the Program Temporary Fixes

Before you apply the V4R2M0 preparation PTFs, you need to do the following:

__ 1. Ensure that the system has adequate resources. Refer to "System Requirements for V4R2M0" on page 3-2.

__ 2. Ensure that you have a current backup of your system before you apply the PTFs. Refer to the *Backup and Recovery*, SC41-5304, book for information on how to use option 21 of the SAVE menu.

Applying the Installation Preparation Program Temporary Fixes

The system must be running on IPL-source B to install a Licensed Internal Code PTF that is part of the preparation PTFs CD-ROM. Refer to the book *Basic System Operation, Administration, and Problem Handling*, SC41-5206, for more information about performing IPLs, applying PTFs, and using the control panel.

Do the following:

__ 1. If your system unit is not set to Normal mode, use the control panel on the system unit to place your system in Normal mode.

__ 2. Ensure that you system is running on IPL-source B. If it is not, perform an IPL to change to IPL-source B.

> **Note:** Most installations run their systems from IPL-source B. You can check the IPL source on your system by using the Display Program Temporary Fix (DSPPTF) command. On the Display PTF Status display, the *IPL source* field has a value of ##MACH#B if your machine is using IPL-source B.

__ 3. This procedure performs an IPL in step 8 on page 3-12. Make sure that all users are signed off the system.

__ 4. Locate the CD-ROM labeled *Installation Preparation PTFs for V4R2M0 Software*. This CD-ROM was shipped with your V4R2M0 distribution media. Load the CD-ROM in the optical device.

__ 5. Type GO PTF and press the Enter key.

__ 6. Select option 8 (Install program temporary fix package) and press the Enter key. The Install Options for Program Temporary Fixes display appears.

```
               Install Options for Program Temporary Fixes
                                               System:    SYSTEMA
 Type choices, press Enter.

   Device  . . . . . . . . .     OPT01        Name, *SERVICE

   Automatic IPL . . . . . .     Y            Y=Yes
                                              N=No

   Restart Type  . . . . . .     *SYS         *SYS, *FULL
   PTF type  . . . . . . . .     1            1=All PTFs
                                              2=HIPER PTFs and HIPER LIC fixes
                                                only
                                              3=HIPER LIC fixes only
                                              4=Refresh Licensed Internal Code

   Other options . . . . . .     N            Y=Yes
                                              N=No

```

__ 7. Specify the following:

Device: OPT01
Automatic IPL: Y
Restart Type: *SYS
PTF type: 1
Other options: N

Press the Enter key.

___ 8. The system applies the appropriate PTFs for your current release.

For V3R7M0, the system applies PTFs MF14115, MF15668, and SF43785 plus the associated PTFs for installed national languages. For V4R1M0, the system applies PTF SF43956 and the associated PTFs for installed national languages.

During the IPL for an upgrade from V3R7M0, data is moved and the additional storage is reserved. SRC (system reference code) C600 4201 or C6xx 4205 appears on the control panel while this occurs. For most systems, this IPL takes somewhat longer to complete than a normal IPL. However, in some situations, the time for this IPL to complete approaches that of an abnormal IPL.

___ 9. If you are upgrading from V4R1M0, continue with the next section,"Verifying Your Software Order" on page 3-13 . If you are upgrading from V3R7M0, you need to use the Apply PTF (APYPTF) command to permanently apply PTF MF14115 and MF15668. Type

```
APYPTF LICPGM(5716999) SELECT(MF14115 MF15668) APY(*PERM)
```

at the command line and press Enter to permanently apply this PTF.

After You Apply the Program Temporary Fixes

After you have permanently applied the PTFs to V3R7M0, you need to verify that the additional storage space has been successfully reserved. The system creates a storage management VLIC log during the IPL. Do the following:

___ 1. Type STRSST and press the Enter key. The System Service Tools display appears.

___ 2. Select option 1 (Start a service tool) and press the Enter key. The Start a Service Tool display appears.

___ 3. Select option 5 (Licensed Internal Code log) and press the Enter key. The Licensed Internal Code Log display appears.

___ 4. Select option 1 (Select entries from the Licensed Internal Code (LIC) log) and press the Enter key. The Specify The Licensed Internal Code Log Selection Values display appears.

___ 5. Specify 1000 for the major code entry type and press the Enter key. The Select Entries from Licensed Internal Code Log display appears.

___ 6. In the list that is displayed, look for either of the following values in the *Major Code* and *Minor Code* columns:

  * 1000 20FF indicates that the additional storage is successfully reserved. You can exit the service tools menu and continue with step 7 on page 3-13.

  * 1000 20FE indicates that the additional storage is <u>not</u> reserved successfully.

    Note: **What to Do If the Storage Was Not Reserved Successfully:** If you see 20FE as the minor code value, you need to either make more space available in the system auxiliary storage pool (system ASP) or add a disk unit to the system ASP. After you have made more space available, perform an IPL. Then start with step 1 of this procedure and check the Licensed Internal

Code Log again. Do not attempt to install V4R2M0 until you see 1000 20FF in the Licensed Internal Code Log.

___ 7. If you plan on running your system for some time before you install V4R2M0 software, you need to ensure that you have adequate backup for disaster recovery. Save the system. Then continue with the next task in the planning checklist.

This completes this planning topic.

Verifying Your Software Order

Verifying the content of your software order before you start installing can save you a lot of time and frustration. The Prepare for Install option on the Work with Licensed Programs (LICPGM) menu allows you to verify the content of the CD-ROM distribution media and create a customized installation list."Creating and Customizing an Installation List" on page 3-15 describes how to use the Prepare for Install option to verify your software order and create a customized installation list.

Verifying the Release and National Language

Do the following to verify the release and national language of your software distribution media:

___ 1. Locate the software distribution media CD-ROMs and the associated Media Description Report. Verify that the CD-ROMs for Licensed Internal Code and OS/400 are for V4R2M0. Place the CD-ROMs in the order that is shown in Table 3-5 on page 3-14.

> **Note:** When you receive software for a new release, you should receive CD-ROMs for <u>at least</u> Licensed Internal Code, OS/400, licensed programs, and the cumulative PTF package. You may also receive CD-ROMs for secondary languages and other types of software products, such as Programming Request for Price Quotations (PRPQ) and licensed program offerings (LPOs).

___ 2. Verify that the media you received is in the correct primary language. If your system uses secondary languages, verify that you received media for the installed secondary languages.

Do the following to determine the feature number for the national language version (NLV) for your system's primary language and any installed secondary languages.

a. Select option 20 (Display secondary languages) from the Work with Licensed Programs (LICPGM) menu and press the Enter key.

b. The Display Installed Secondary Languages display appears. This display identifies the primary language of the system and any installed secondary languages.

Make sure that the CD-ROMs for Licensed Internal Code and OS/400 are for the primary language of your system. If the system uses secondary languages, ensure that you have received media for those secondary languages.

c. Press the F3 (Exit) key.

Table 3-5 (Page 1 of 2). Distribution Media Labels-Description

Release Identifier: R02M00

Distribution media labels indicate the version, release, and modification level in a format that is different from what appears on displays during installation. The media labels show the version, V4, in the first line of the label. The release and modification level are shown in the format R0xM00. For example, the release and modification level for V4R2M0 would be R02M00.

Note: Media for Model 150 OS/400 have "AS/400 Advanced Series Media for 9401, Model 150" as the first line of the label. Media with this label can only be installed on Model 150 AS/400s.

Media Type Identifiers:

Labels on the distribution media that is used for installation have unique identifiers. Media type identifiers are located on the center of the left-hand side of the CD-ROM label. These identifiers help you determine when to use each media volume. When you replace your software with a new release, you typically use the media in the order that the identifiers are listed below.

SK3T-2997	**Installation Preparation PTFs for V4R2M0 Software**
	This media contains PTFs that you must install on your existing system before you can successfully install V4R2M0.
I_BASE_01	**Licensed Internal Code for OS/400**
	This language-independent Licensed Internal Code supports all national language features.
	Note: Keep this CD-ROM. You may need it for recovery procedures.
B29xx_01[2]	**Operating System/400**
	This media contains only the base part of OS/400.
B29xx_02[2]	**OS/400 no-charge options and licensed programs**
	This media contains IBM-supplied libraries QGPL and QUSRSYS, no-charge optional parts of OS/400 and no charge licensed programs.
F29xx_01[2, 3]	**Priced features and licensed programs**
	This media contains the licensed programs that you ordered. It also contains any priced features of OS/400 or other licensed programs that you ordered. You may receive more than one media volume for these products. If you do, the additional volumes are labeled F29xx_02, F29xx_03, and so on.
N29xx[2]	**Secondary Language Media**
	This media contains <u>only</u> language objects for the indicated secondary language. For secondary language media, the value for 29xx is the feature code of the secondary language as used for installation.

Table 3-5 (Page 2 of 2). Distribution Media Labels-Description

Cydddvrm_01[1]	Cumulative PTF Package
	Numbers in the positions shown here as yddd indicate the Julian date. Characters in the positions show here as vrm indicate the version, release, and modification of the cumulative PTF package.
	This label may also indicate a prerequisite level of Licensed Internal Code. If a prerequisite exists, you will see another line like this: Preq yyyyyy/Cydddvrm. Characters shown here as yyyyyy indicate a Licensed Internal Code marker level and a different Julian date.
C_yyyyyyy_01[1] Cydddvrm	Licensed Internal Code for Cumulative PTF Package
	You receive this media volume only if the cumulative PTF package media indicates a prerequisite (yyyyyy) that has a different value than on the Licensed Internal Code media label. This label matches the indicated prerequisite shown on the cumulative package media volume.
SK3T-0118	SoftCopy Library CD This media volume ships with all systems. It contains softcopy versions of AS/400 books and can be used as an online reference.

Notes:

1. Julian dates are shown in the form *yddd*. The *y* is the last digit of the year (0 through 9), and *ddd* is the day of the year (0 through 366). For example, the Julian date for April 6, 1998 would be shown as 8096 because April 6 is the 96th day of the year 1998.

2. Media identifiers that contain the string 29*xx* (where *xx* are numerals) indicate language-specific media. This string indicates the national language feature code for the primary language. For example, media labeled B2928_01 would be OS/400 with French as the primary language.

3. You may receive additional media volumes that do not conform to these descriptions. Examples include media that contain PRPQs, softcopy libraries, or media for Client Access products which is installed on workstations.

Creating and Customizing an Installation List

Use the following process to create and customize an installation list from your distribution media:

__ 1. Arrange the CD-ROMs for Licensed Internal Code, OS/400, and licensed programs in the order that is shown in Table 3-5 on page 3-14.

__ 2. Select option 5 (Prepare for install) from the Work with Licensed Programs (LICPGM) menu and press the Enter key. The Prepare for Install display appears.

__ 3. Select the option to Work with Licensed Programs for Target Release and press the Enter key. The Work with Licensed Programs for Target Release display appears.

```
                  Work with Licensed Programs for Target Release
                                                      System:   SYSTEMA
    Type choices, press Enter.

       Generate list from       1            1=Distribution media
                                             2=Merge with additional distribution
                                               media
                                             3=Modify previously generated list

       Optical device . . .    OPT01         *NONE, Name

       Target Release . . .    V4R2M0        VxRxMx
```

___ 4. Do the following:

a. Load the first CD-ROM in the optical device.

b. Specify 1 (Distribution media) for the *Generate list from* prompt and specify values for the optical device and the target release. Press the Enter key.

When the system completes reading the content of a CD-ROM, you will see a message at the bottom of the display. Respond to the message so you see the prompt to load the next CD-ROM. Continue to load CD-ROMs until the system has read them all.

___ 5. After all the CD-ROMs have been read and the message Load next volume in CD-ROM device (X G) appears, type an X and press Enter. The Work with Licensed Programs for Target Release display appears.

```
                  Work with Licensed Programs for Target Release
                                                      System:   SYSTEMA
    Target release  . . . . . . . . . . . . . . . . . . :  V4R2M0
    Estimated additional storage for selections (M) . . . :   XX.XX


    Type options, press Enter.
      1=Select   5=Display release-to-release mapping

          Licensed  Product
    Opt   Program   Option    Description
     1    5769SS1   *BASE     Operating System/400
     1    5769SS1             OS/400 - Library QGPL
     1    5769SS1             OS/400 - Library QUSRSYS
     1    5769SS1   1         OS/400 - Extended Base Support
     1    5769SS1   2         OS/400 - Online Information
     1    5769SS1   3         OS/400 - Extended Base Directory Support
     _    5769SS1   4         OS/400 - S/36 and S/38 Migration
     _    5769SS1   5         OS/400 - System/36 Environment
```

The list you see contains the licensed programs that are on the CD-ROM distribution media and in the installed products table on your system. Pre-selected licensed programs indicate that the product on the distribution media can be used to replace a product that is installed on the system.

Verify that you received all of the licensed programs and priced features that you ordered.

Notes:

a. Use the F11 key to see alternate views which display information about licensed programs in greater detail.

b. Use option 5 (Display release-to-release mapping) to see what, if any, currently installed product can be replaced by the selected product.

c. IBM ships specific licensed programs with each software order at no charge to you. These products appear in this list. (They do not appear in the media description report.) Refer to Table 3-6 on page 3-17.

d. If you ordered Client Access products, you will receive several licensed programs. Refer to "Notes and Packaging Details for Client Access" on page C-4 for information about Client Access products.

Table   3-6. No-charge licensed programs that are shipped with V4R2M0 OS/400

5769-PM1	Performance Management/400
5769-TC1	TCP/IP Connectivity Utilities for AS/400
5763-XD1	Client Access for Windows 95/NT
5763-JC1	AS/400 Toolbox for Java
5769-JV1	AS/400 Developer Kit for Java

___ 6. Select additional licensed programs or optionally installable parts of licensed programs to add to your customized list. To remove a selected product from the list, type a blank in the *Option* column. When you complete your selections, press the Enter key. A message at the bottom of the screen will prompt you to enter more changes, or press Enter to confirm the changes.

___ 7. The Confirm Target Release Licenses Programs display appears. Press Enter to confirm the list. You see the Prepare for Install display.

___ 8. Select the option to List Licensed Programs Not Found on Media and press the Enter key. The Licensed Programs Not Found On Media display appears.

___ 9. If there are no products listed, you have all the media needed to replace your existing software. Press the Enter key to return to the Work with Licensed Programs menu. Go to the next step to create a printed list of the licensed programs you selected.

If there are <u>any</u> products listed, you may need to obtain them before you begin installing software. Do the following:

• Check to see if you accidentally omitted a CD-ROM when you performed step 4 on page 3-16.

• Check the media description report to see if the product was shipped. Refer to "Using the Media Description Report" on page E-8 for more information. If you did not receive a licensed program that you expected, contact your software provider.

• When you receive the product or locate the media, use "Merging Additional CD-ROMs into the Installation List" on page 3-18 to add its contents to the installation list. Then, go to the next step to create a printed list of the programs you selected to install.

___ 10. From the Prepare for Install display, select the option to Display Licensed Programs for the Target Release and press Enter.

Specify *PRINT for output on the Display Licensed Programs for Target Release display and press Enter. This creates a spooled file that you can print and use as a reference while performing the installation.

__ 11. You should see the message Task to prepare for install successfully completed appear at the bottom of the screen. Press F3 to exit.

Merging Additional CD-ROMs into the Installation List

Do the following to add licensed programs from an additional CD-ROM to the installation list:

__ 1. Starting from the Work with Licensed Programs (LICPGM) menu, select option 5 (Prepare for install) and press the Enter key. The Prepare for Install display appears.

__ 2. Select the option to Work with licensed programs for the target release and press the Enter key. The Work with Licensed Programs for Target Release display appears.

__ 3. Select option 2 (Merge with additional distribution media) for the *Generate list from* prompt so that CD-ROM contents can be added to the list. The target release value of the existing list appears.

Specify a name for the optical device and press the Enter key.

__ 4. The Work with Licensed Programs for Target Release display appears. The list includes your previously generated list plus the content of the additional CD-ROM.

Type a 1 next to the additional licensed programs or optional parts that you want to select and Press the Enter key.

__ 5. The Confirm Licensed Programs for Target Release display appears. Press the Enter key to confirm the list.

You see the Prepare for Install display. Press the F3 (Exit) key.

This completes this planning topic.

Using Prepare for Install to Clean Up Your System

The Prepare for Install option on the Work with Licensed Programs menu provides tools to help you clean up licensed programs and user profiles. You should do this before you install a new release of software.

How to Delete Licensed Programs During Clean Up

Cleaning up your system before installing a new release of software can include deleting products. You may no longer need some licensed programs, or you may plan to not replace them. Occasionally, the system may require that you delete an obsolete product before you install a new release. The Work with Licensed Programs (LICPGM) menu option *Prepare for Install* provides an easy way for you to identify and delete licensed programs when you are preparing to install a new release of software. Do the following:

__ 1. Select option 5 (Prepare for install) from the Work with Licensed Programs display and press the Enter key. The Prepare for Install display appears.

__ 2. Select the option *Work with Licensed Programs to Delete* and press the Enter key. The Work with Licensed Programs to Delete display appears.

The display shows a list of installed products to be deleted from the system. Licensed programs may appear in this list for the following reasons:

- The licensed program should not remain on the system because it is not supported in the target release.

- The licensed program is installed, but no replacement product was found on the CD-ROM distribution media.

- A preselected licensed program was removed from the installation list so its associated installed product appears on this display. If the installed product remains on the system, it will be replaced by the licensed program that is on the distribution media.

Press F11 (Display reasons), then press the Help key to display a description of the reason each product is included in the list for deletion. Carefully review the reason for deletion before you take any action. The list may contain entries for which similar function may be available.

___ 3. When you are sure of which products to delete, use option 1 (Save) to save a copy of the products in case you may need them again. Then use option 4 (Delete) to delete the products before you install the target release of software.

Cleaning Up User Profiles

Cleaning up user profiles and the objects that are owned by user profiles before installing a new release is good system hygiene. Have each user sign on and do the following:

___ 1. Type the command WRKOBJOWN. The Work with Objects by owner display is shown. It lists all of the objects that are owned by the user. Use option 4 (Delete) to delete objects that are no longer needed.

___ 2. Type the command WRKSPLF to list all of the spooled files that are owned by the user. Delete spooled files that are no longer needed.

If the users cannot do this, you can do it as follows:

1. Sign on as security officer (QSECOFR user profile).

2. Select option 5 (Prepare for install) from the Work with Licensed program (LICPGM) menu.

3. Select the option to work with user profiles from the Prepare for Install display. The Work with User Profiles display appears.

4. Use option 12 (Work with objects by owner) to display the objects that are owned by a user profile. Do the following:

   - For each user profile, delete objects that are no longer needed.

   - Use the WRKSPLF SELECT(*ALL) command to delete spooled files that are no longer needed.

5. Delete the user profiles that you no longer need.

   Note: Do not delete any IBM-supplied user profiles (profiles that start with the letter Q).

This completes this planning topic.

Evaluating Your Disk Storage Needs

You must ensure that you will have adequate disk storage before starting to install software. To make more efficient use of your storage, you should clear your system of items you no longer require before estimating how much storage you need. Refer to "Cleaning Up Your System" on page 3-4.

Checking Disk Storage Space Requirements

Before you schedule a time to install this release, determine the available storage space and the storage space that is required for this release.

__ 1. Type GO LICPGM.

The Work with Licensed Programs display appears.

__ 2. Choose option 5 (Prepare for Install).

__ 3. Type 1 next to Estimated storage requirements for system ASP.

__ 4. The Estimated Storage Requirements for System ASP display appears.

```
                  Estimated Storage Requirements for System ASP
                                                      System:    XXXXXXXXX
     The following information is required to determine how much disk storage
     is needed when calculating the additional storage that may be required
     when upgrading to the target release.  This information, along with the
     value for "Estimated additional storage fro selections (M)" on the Work
     with licensed programs for target release display will be used to
     determine the estimated storage requirements for installing the target
     release.  When determining the additional storage required, you need to
     factor in new and updated PRPQ and LPO sizes.

     Type value, press Enter.

     Additional storage required . . . . . .   _____      M
```

Enter the total storage that is needed for additional applications; such as PRPQs, LPOs, or third party software.

Note: Include third party software only if it will be stored in the system ASP.

Round up to the nearest whole number. Refer to the product documentation to determine how much additional storage is required. The system uses this number to calculate the disk storage that is required to install the target release. Press Enter to continue to the next screen.

__ 5. The second Estimated Storage Requirements for System ASP display appears.

```
                  Estimated Storage Requirements for System ASP
                                                      System:      XXXXXXXX
Target Release . . . . . . . . :    V4R2M0

Current supported system capacity (M)  . . . . . . :    12583
  Storage used (M) . . . . . . . . . . . . . . . . :     6428
Storage Required to install target release (M) . . :    7398
Install growth:
  Licensed program growth (M)  . . . . . . . . . . :     916

Install will multi-process . . . . . . . . . . . . :    Yes






Press Enter to continue

F3=Exit    F11=Show multi-process details    F12=Cancel
```

This display shows you information that you will need to determine if
enough disk storage is available to complete the installation. The numbers
in the sample screen are an example. The numbers that are shown for your
system will differ.

___ 6. Compare the value for Storage Required to Install Target Release with the
value for Current Supported System Capacity. If the value for Current Sup-
ported System Capacity is greater than the value for Storage Required to
Install Target Release, you can continue with the install process. If the
system capacity is less than the storage required, you may need to add
additional disk units or install fewer optional programs.

In the example that is shown above, the installation can proceed because
the storage capacity of 12583M is larger than the 7398M storage required
to install.

___ 7. Press Enter to return to the Prepare for Install display.

You should repeat this process if you make any changes to your system that affect
the available disk storage space.

Compressed Objects and Storage Space
All of the licensed programs and some objects of the operating system ship in a
compressed form which requires less storage space on your system. System jobs
(QDCPOBJx, where x is a number) automatically decompress these objects during
the installation process if your system has sufficient unused disk storage. If not
enough storage space is available, the system decompresses the objects when you
use them, which could affect the performance of the system.

The system decompresses objects according to the following criteria:

* Greater than 750M available storage

  The system submits jobs to decompress all system objects just installed.

* 250-750M available storage

  The system only decompresses frequently-used objects automatically . Object
  usage information (the number of days an object has been used and the last-

used date) is used to identify frequently used objects. The system decompresses any object that was used at least 5 times when the last use was within the last 14 days. The system leaves the remaining low-use objects in compressed form.

- This does not include decompression of objects that are shipped in the base operating system and in library QSYS. The system resets usage information for those objects during the installation process. For all other licensed programs, the object usage information is kept during the installation process.

- A call to a system program does not update its usage information; the system does not automatically decompress programs in constrained storage mode. However, high-use programs ship in decompressed form and are not considered compressible.

- Less than 250M available storage

  The system does not submit the jobs and decompresses the objects as they are used.

Note: The QDCPOBJx system jobs may run for some time after the installation process completes. More information about compressing and decompressing objects is available in the book *CL Programming*, SC41-5721 .

This completes this planning topic.

Choose Manual or Automatic Installation

If you are replacing a release of software, you need to decide which installation procedure you will use to install the new release. Topic "Replacing Licensed Programs, Automatic or Manual Install Process" on page 1-3 describes the automatic and manual installation processes.

Important: Version 4 of OS/400 functions only on AS/400e series models with PowerPC Technology. See Chapter 2, "Where to Begin" on page 2-1 for more information about which releases are supported for the procedures in this book.

When to Use Manual Installation

If you are doing any of the installation procedures in the following list, you should use the manual installation process:

- Adding a disk device using mirrored protection, device parity protection, or user auxiliary storage pools.

- Changing primary language (see "Considerations When Changing a Primary Language" on page 3-23)

- Changing the environment (AS/400 or System/36), system values, language feature code, or configuration values.

- Planning to use an alternate installation device when upgrading from V3R7M0 to V4R2M0.

- Using tapes created with the Save System (SAVSYS) command. (The SAVSYS command creates tapes meant for recovery.)

When to Use Automatic Installation

Use the automatic installation process when you determine that you do not need to use the manual process. During most of the automatic installation process, there is no user intervention that is required except to load a new media volume when the system prompts for one. Therefore, there is no idle system time waiting for the operator to respond to messages or choose installation options during the installation process.

This completes this planning topic.

Planning for National Language Support

This topic briefly describes key facts you should know if you use secondary languages or if you need to change the primary language of your system.

The **primary language** is the national language that is installed on the system as the default language used to display and print information. The primary language is also used to service the system.

Secondary languages are one or more additional national languages that can be installed on the system to display and print information.

Note: If the primary language is uppercase English (2938 or 2950), you need to type uppercase characters when you respond to system messages.

The *National Language Support*, SC41-5101, book contains more information about planning for and using national languages on your AS/400 system.

Considerations When Changing a Primary Language

You can change the primary language of your system in these two ways:

- By using secondary language media to replace the language objects.

- While replacing a release using the manual installation process.

You cannot change your primary language to a language you currently have installed as a secondary language on your system. You must delete the secondary language before you can change it to your primary language. Use Option 22 from the Work with Licensed Programs menu.

If you use Chapter 8, Changing Your Primary Language Using Secondary Language Media, the release and modification level of your system must be the same as the release and modification level of your secondary language media. You need the media that contains OS/400 and the media that contains the secondary language.

Changing your primary language from a single-byte character set (SBCS) to a double-byte character set (DBCS) requires special considerations. (The considerations also apply to changing your primary language from DBCS to SBCS.) The installation process takes significantly more time than a typical software installation. The DBCS feature codes are listed in Appendix G, "National Language Version Feature Codes" on page G-1.

Make sure that your console device is configured to support the default code page of the primary language you are going to install. Change the console device to one that supports the code page of the new primary language before installing V4R2M0.

While F type keyboards are supported for many national language versions, they are not supported for Czech, Farsi, Hungarian, Russian, Polish, Slovakian, or Thai. If you change your primary language to one of these national language versions, the system console cannot have an F type keyboard. Change the system console to a device that does not have an F type keyboard before installing any of these national language versions as a primary language. If you do not, an error occurs and the installation fails.

Refer to the book *National Language Support*, SC41-5101, for more information about planning for and using national languages on your AS/400 system.

Considerations for Secondary Languages

IMPORTANT: If you are installing a double-byte character set (DBCS) secondary language, you <u>must</u> have a DBCS primary language installed on your system. You can install a single-byte character set (SBCS) secondary language on a system with a DBCS primary language.

Secondary language libraries must be at the same release level as OS/400.

The process to add a secondary language installs only one secondary language at a time. If you need to add more than one secondary language, you need perform the procedure to install a secondary language multiple times. This book contains the following two procedures to install secondary languages:

- "Task 1. Using the Work with Licensed Programs Menu" on page 10-1 installs secondary language objects for OS/400 and installed licensed programs. Use this procedure when you are installing a secondary language after installing the new release or when you are adding additional secondary languages to the system.

- "Task 2. Using the Restore Licensed Program Command" on page 10-4 restores a secondary language for only one licensed program or optional part. Use this procedure when you want to restore a secondary language for only one licensed program. Use this procedure when you are installing secondary language objects for licensed programs that you installed using the RSTLICPGM command.

Only the secondary language objects for the installed licensed programs are installed. If you add a licensed program or an optional part after the secondary language is installed, you will not have the secondary language objects for licensed programs you add later. Install the secondary language again to get the new language objects for the added licensed program.

Before You Replace a Release
When you plan to install a new release, consider the following:

- Plan to install the new release of any secondary languages you have currently installed on your system.

   Note: Delete secondary languages you no longer need to save storage space. If your system was shipped from a different country, you may not need the secondary languages that are installed on the system.

If you want to delete a secondary language for all of the licensed programs installed on your system, use option 22 on the Work with Licensed Program menu. If you want to delete a secondary language for only one licensed program, use the Delete Licensed Program (DLTLICPGM) command.

- If you are changing the primary language to a language that is already installed as a secondary language, *delete the secondary language* before you install it as a primary language.

- The QSECOFR user profile cannot have a secondary language library at a previous release in its library list when you install a new release. If you have an initial program for the QSECOFR user profile, be sure it does not add a secondary language library to the system library list. ("Checking the QSECOFR User Profile" on page 3-33 ensures that you do this.)

- If you added a secondary language library (QSYS29xx) to the system values QSYSLIBL or QUSRLIBL, use the WRKSYSVAL command to remove the library from the library list before you install a new release. ("Setting System Values Before Installing" on page 3-36 ensures that you do this.) The *National Language Support*, SC41-5101, book also contains more information about secondary language libraries in user profiles.

This completes this planning topic.

Prepare to Install Softcopy Information

Most AS/400 system and product documentation is available as online books on CD-ROM media. These online books can be used on personal computers or on AS/400. A small amount of planning before you install softcopy information will make the task a simple process.

Where to Find Softcopy Information

You receive the book *AS/400e series Softcopy Library CD-ROM*, SK3T-0118, with your Softcopy Library CD-ROM package. This book contains detailed information to help you decide what parts of the softcopy library you need. It also helps you decide where and how to install the softcopy library to ensure the most benefit for your enterprise. After you complete installing the softcopy library, you should keep the book for future use.

Note: If you also ordered the Redbook Library on CD-ROM, you receive an additional booklet with it.

If the primary language of your AS/400 system is not English, you receive the softcopy library in the appropriate national language version (NLV) *and* English. You can order the softcopy library in the NLV for any secondary languages that are installed on your AS/400 system. There may be more than one language on the distribution media for the NLV softcopy library. The primary language bookshelves and secondary language bookshelves are not installed during the same process.

When to Install Softcopy Information

Chapter 11, Checklist for Completing the Installation, directs you when to install the softcopy library. You can delay installing the softcopy library until a more convenient time in your schedule.

If you plan to use the softcopy library exclusively from a personal computer, you do not need to store the books or bookshelves on AS/400 system. You can install the softcopy library on a personal computer now.

Additional Considerations When Installing the Softcopy Library on AS/400

If you want to keep any IBM-supplied bookshelves installed on your current AS/400 system, you need to save them before you install your target release. Refer to the *AS/400e series Softcopy Library CD-ROM*, SK3T-0118, for more information.

If you are using the softcopy library from a nonprogrammable workstation, you must use InfoSeeker. The online book *InfoSeeker - Getting Started*, SC41-5001 , describes how to start using InfoSeeker. For more detailed information, see the *InfoSeeker Use*, SC41-5002, book.

Softcopy Library is Already Installed

If the softcopy library is currently installed on AS/400, you should identify which books and bookshelves you have installed. Your calculations for disk storage requirements and installation time estimates need to account for replacing your installed bookshelves and for adding additional bookshelves. You can do this as follows:

___ 1. Use the Start InfoSeeker (STRINFSKR) command STRINFSKR *LIST to start InfoSeeker. Then press F6 to change the list on the InfoSeeker display.

___ 2. On the Change List display, change the *Type to display* value to display both books and bookshelves. Specify *ALL for the *Book or bookshelf name* prompt. Press the Enter key to continue.

   The InfoSeeker display appears again and shows all of your installed books and bookshelves.

___ 3. Use the Print key to print the information on the display. Be sure to print all of the displays that show your installed books and bookshelves. If you see More... in the bottom right corner of your display, there is more information to view.

___ 4. Now use the *AS/400e series Softcopy Library CD-ROM* to identify any bookshelves and books that you plan to add to your system for the first time.

This completes this planning topic.

Estimating Installation Time

Use the "Checklist for Estimating Installation Time" on page D-6 and other information in Appendix D, Estimating Your Total Installation Time to estimate the time that is needed to install this release of software on your system. "Making the Most of Your Installation Time" on page 3-27 and "Conditions that Affect Installation

Time" on page D-2 contain information you should read that could help reduce the installation time.

Making the Most of Your Installation Time

The following actions will minimize the time required to install your system:

- Use the automatic installation process rather than performing a manual installation process. Refer to "Choose Manual or Automatic Installation" on page 3-22 for more information.

- Perform the licensed program installation with all subsystems ended (ENDSBS *ALL). If you are performing an automatic installation, you are operating in the preferred environment. This environment provides maximum system resources to the installation process and eliminates certain functions required only when subsystems are active.

- Verify that you have enough auxiliary storage to perform the installation. If there is additional auxiliary storage available, the installation process time can be reduced. Option 5 (Prepare for Install) on the Work With Licensed Program (LICPGM) menu will tell you if the install can multiprocess.

- If you are not using the automatic installation process, be sure to set the QSYSOPR message queue in *BREAK mode before you start the installation process.

- Load the next volume of installation media when prompted by the system. The files are loaded faster when the system can use multiprocess installation instead of single-process installation. When an end of volume is encountered, the active install jobs continue to install the licensed programs they are currently working on. However, they do not begin installing another licensed program until you load the next volume of the installation media.

This completes this planning topic.

Gathering Performance Information

Gathering performance data before installing this release gives you a base with which to compare your system's performance after the installation is complete. You can gather the information by using the Start Performance Monitor (STRPFRMON) command or the Work with Performance Collection (WRKPFRCOL) command.

If you use the STRPFRMON command or WRKPFRCOL command, you should collect two sets of data.

The first set should be an overview for a 24-hour period. Collect two 24-hour periods of data on days when the system load is normal to heavy.

```
                    Start Performance Monitor (STRPFRMON)

 Type choices, press Enter.

 Member . . . . . . . . . . . . . .   *GEN         Name, *GEN
 Library  . . . . . . . . . . . . .   QPFRDATA     Name
 Text 'description' . . . . . . . .   *SAME

 Time interval (in minutes) . . .     15           5, 10, 15, 20, 25, 30, 35...
 Stops data collection  . . . . .     *ELAPSED     *ELAPSED, *TIME, *NOMAX
 Days from current day  . . . . .     0            0-9
 Hour . . . . . . . . . . . . . .     24           0-999
 Minutes  . . . . . . . . . . . .     0            0-99
 Data type  . . . . . . . . . . .     *ALL         *ALL, *SYS
 Trace type . . . . . . . . . . .     *NONE        *NONE, *ALL
 Dump the trace . . . . . . . . .     *YES         *YES, *NO
 Job trace interval . . . . . . .     .5           .5 - 9.9 seconds
 Job types  . . . . . . . . . . .     *DFT         *NONE, *DFT, *ASJ, *BCH...
                    + for more values


                                                                    More...
 F3=Exit   F4=Prompt   F5=Refresh   F10=Additional parameters   F12=Cancel
 F13=How to use this display       F24=More keys
```

Set these fields as follows:

Time interval (in minutes)   15
Hour   24

The second set of performance data should be detailed for a 1-hour period. Collect
the data over several periods while the system is used interactively and in batch at
moderate to heavy use. Collect the data at the same time every day.

```
                    Start Performance Monitor (STRPFRMON)

 Type choices, press Enter.

 Member . . . . . . . . . . . . . .   *GEN         Name, *GEN
 Library  . . . . . . . . . . . . .   QPFRDATA     Name
 Text 'description' . . . . . . . .   *SAME

 Time interval (in minutes) . . .     5            5, 10, 15, 20, 25, 30, 35...
 Stops data collection  . . . . .     *ELAPSED     *ELAPSED, *TIME, *NOMAX
 Days from current day  . . . . .     0            0-9
 Hour . . . . . . . . . . . . . .     1            0-999
 Minutes  . . . . . . . . . . . .     0            0-99
 Data type  . . . . . . . . . . .     *ALL         *ALL, *SYS
 Trace type . . . . . . . . . . .     *ALL         *NONE, *ALL
 Dump the trace . . . . . . . . .     *YES         *YES, *NO
 Job trace interval . . . . . . .     .5           .5 - 9.9 seconds
 Job types  . . . . . . . . . . .     *DFT         *NONE, *DFT, *ASJ, *BCH...
                    + for more values


                                                                    More...
 F3=Exit   F4=Prompt   F5=Refresh   F10=Additional parameters   F12=Cancel
 F13=How to use this display       F24=More keys
```

Set these fields as follows:

Time interval (in minutes)   5
Hour   1
Trace type   *all

This completes this planning topic.

Ordering the Current Cumulative Package

If some time has passed since you received your release, you should order the most recent cumulative PTF package for the new release. To order the package, type the following on any command line:

SNDPTFORD SF99vrm

V is the version, r is the release, and m is the modification level.

Press the Enter key.

For more information about analyzing your existing PTFs, see "Cross-Reference Summaries for Program Temporary Fixes (PTFs)" on page 3-7. Information about current cumulative PTF packages is also available on the Internet at

http://as400service.rochester.ibm.com/as400/service.html

.

This completes this planning topic.

Identifying Changes to IBM-Supplied Objects

When you replace your software with the V4R2M0 release, the system keeps changes you made to some IBM-supplied objects. Certain job descriptions and sub-system descriptions are restored during the installation process. The system creates three new libraries:

- QINSYS
- QINMEDIA
- QINPRIOR

The system saves your customized descriptions in library QINSYS. When the descriptions are installed into QSYS, the system compares those values with the descriptions in QINSYS. If there are any differences, the system uses your customized value from QINSYS. If there are conflicts in certain values, the system uses the value from the installation media, and the conflicting value remains in QINSYS. QINMEDIA holds the description from the installation media. QINPRIOR holds the descriptions from the prior release level so that you can compare the current and previous release descriptions.

Changes to IBM-Supplied Objects:

If you have made changes to any of the IBM-supplied descriptions shown in the table below, the system keeps your changes.

Table 3-7. IBM Supplied Descriptions that Retain Customized Information	
Job Descriptions	**Subsystem Descriptions**
QCTL Controlling subsystem	**QBASE** Basic controlling
QCTLIJBD Controlling subsystem IGC	**QBATCH** Batch
QESAUTON Automatic problem notification	**QCMN** Communications
QFSIOPWK File server I/O processor	**QCTL** Controlling
QMSF Used by QPGMF job	**QINTER** Interactive
QPDAUTOPAR Used for automatic problem analysis	**QPGMR** Programmer
QQQTEMPS DB2/400 JOBD used by QSYSWRK	**QSNADS** Systems Network Architecture (SNA) Distribution
QSPLERROR Spooling error	**QSPL** Spooling
QSTRUPJD Autostart	**QSYSWRK** System
QSYSWRK System subsystem	
QTMSNMP Simple Network Management Protocol (SNMP) job description	
QZMFEJBD QSYSWRK autostart job entry	

Moved or Duplicated IBM-Supplied Product Libraries:

If you have moved IBM-supplied product libraries to user auxiliary storage pools (user ASPs), the installation procedures will not update the libraries. To prevent this problem, ensure that IBM-supplied product libraries are in the system ASP before you start the installation procedures. The product libraries should remain in the system ASP. PTFs are not applied to product libraries that are not in the system ASP.

If you have duplicated IBM-supplied product libraries, delete the duplicates before you start the installation procedures. The installation process fails, and the new release does not install until duplicated IBM-supplied libraries are deleted.

Duplicated IBM-supplied Objects:

If you have duplicated any IBM-supplied objects, you may want to make new duplicates after you install the release. This allows you to take advantage of functions added in the new release. Examples of duplicated objects that you may have include the following:

- Message text descriptions
- Commands
- Command defaults

Deleting Logical Files Created Over IBM-Supplied Physical Files in QSYS:

If you have created logical files over IBM-supplied physical files in QSYS, the logical files will be deleted during the installation process.

This completes this planning topic.

Ensuring Two-Phase Commit Integrity

Before you replace your software, you must either complete or cancel all pending resynchronizations of commitment control definitions.

You need to perform this task only if all of the following are true:

- Your system is connected in a network.

- Your system runs applications that use two-phase commit support.

Two-phase commit support is used when an application updates database files on more than one system. Two-phase commit support ensures that the databases remained synchronized. If you are not sure whether your system uses two-phase commit support, perform steps 1 and 2. You may need to continue with the rest of the procedure.

Remember that any actions you take with respect to a pending resynchronization affect the other systems that are participating in the logical unit of work (transaction) with your system. Therefore, you or someone else will also need to handle pending resynchronizations on the connected systems before you begin your upgrade procedure.

If you perform this procedure 1 or 2 days before you install the new release of software, you should recheck for resynchronizations before starting the installation.

To work with pending resynchronizations on your source system, do the following:

__ 1. To display all commitment definitions that may require resynchronization, type the following command:

   WRKCMTDFN JOB(*ALL) STATUS(*RESYNC)

__ 2. If you see the message (No commitment definitions are active), you can skip the rest of this procedure.

__ 3. On the Work with Commitment Definitions display, type a 19 (Cancel Resync) in the Option column for each commitment definition. You see the Cancel Resync display.

__ 4. If the value in the column *Resync Required* is Yes for any remote location listed, then do the following for that location:

   a. Attempt an action, such as restarting communications, and allow the resynchronization to complete.

   b. If you cannot allow the resynchronization to complete, specify option 1 (Select) to cancel resynchronization to that remote location.

   You may receive message CPF83E4, which indicates that the logical unit of work is in an undecided state. You will have to make a heuristic decision to force either a commit operation or a rollback operation before you can successfully cancel resynchronization. These options are available from the Work with Commitment Definitions display.

   By canceling resynchronization or by making a heuristic decision, you may cause the databases between the two systems to be in an incon-

sistent state. You must then take the responsibility for determining the action taken by all the other locations that participated in this Logical Unit of Work (LUW), and resynchronize the database changes.

___ 5. Refresh the display periodically. When resynchronization for a commitment definition completes or cancels successfully, the value in the *Resync in Progress* column will be No.

Note: The resynchronization or canceling of resynchronization may not take place immediately. They are dependent on the state of the other systems that are participating in the logical unit of work.

For more information on commitment control, resynchronization, and heuristic decisions, see "Commitment Control" in the book *Backup and Recovery*, SC41-5304.

This completes this planning topic.

3995 Optical Library Users

If you use the 3995 optical library, you should check to see if you have any held optical files before you install V4R2M0. Held optical files are files which have not been successfully written to optical media. Use the Work with Held Optical File (WRKHLDOPTF) command to check for held optical files. You should either save or release held optical files before installing V4R2M0.

Once V4R2M0 is installed, you will only be able to release held optical files that are from previous releases. Attempting to save held optical files from previous releases results in message OPT0129 (Requested optical function failed to complete successfully). For more information about held optical files, refer to the *Optical Support*, SC41-5310, book.

This completes this planning topic.

Verifying the Integrity of System Objects

The installation process requires that the QSECOFR and QLPINSTALL user profiles exist in the system distribution directory. Also, the QSECOFR user profile cannot contain secondary language libraries or alternate initial menus. The process requires that all database cross reference files are not in error before the install process begins.

Verifying User Profiles and Checking Cross Reference Files

The following procedure will add the QSECOFR and QLPINSTALL user profiles if you have deleted them from the system distribution directory. It will also check for errors in database cross reference files on your system.

___ 1. Type GO LICPGM at the command line and press the Enter key. The Work with Licensed Programs menu appears.

___ 2. Type a 5 (Prepare for Install) and press the Enter key. The Prepare for Install display appears.

___ 3. Select the option to Verify System Objects and press the Enter key.

The system verifies the system directory entries and adds the QSECOFR and QLPINSTALL user profiles if necessary. Database cross reference files are checked for errors.

___ 4. If the database cross reference files are in error, you will see message CPI3DA3. Follow the instructions of this message to resolve the errors before you continue.

___ 5. If the database cross reference files are not in error, you will see a completion message at the bottom of the display. Press F3 (Exit) to return to the Work with Licensed Programs menu.

Checking the QSECOFR User Profile

If you are operating in a System/36 environment and have specified a menu or program in the QSECOFR user profile to be the initial menu, you must delete it from the profile before installing licensed programs.

The QSECOFR user profile cannot have a secondary language library (QSYS29xx) at a previous release in its library list when you install a new release. If you have an initial program for the QSECOFR user program, be sure that it does not add a secondary language library to the system library list.

This completes this planning topic.

Basic System Hardware Considerations

During software installation, you are concerned with three basic hardware items: the control panel, the console, and the installation device.

Get to Know the New Control Panel

Examine the control panel for your new system. Ensure that you and the operators who perform the software installation know how to use the control panel functions. The *Basic System Operation, Administration, and Problem Handling*, SC41-5206 book contains information you can review to learn how to operate the control panel.

Verify the Console Address

The software installation process expects the console, or the workstation assigned as the console, to be attached at port 0 and address 0 of the first workstation controller. In most cases, your hardware should be defined in this way. You should verify that the console is attached at port 0 address 0. Refer to the *Physical Planning Reference*, SA41-5109, book for rules about attaching workstation devices.

Prepare Installation Device and Media

V4R2M0 software distribution media is CD-ROM. However, there may be times when you also use tape media for installation. Put your tapes or CD-ROMs in the same room as your system several hours before you begin the installation. This way, the media are at the same temperature and humidity as the system.

When Installing from CD-ROM

The optical device used with the CD-ROM media class is considered the alternate IPL device. On some systems, the optical device is mounted vertically. Sets of tabs retain the media in the media drawer. For vertically mounted devices, ensure that the lower set of tabs are fully extended before you attempt to load CD-ROM media. Use care when loading CD-ROMs into vertically mounted units. If the tabs are not fully extended, the media can fall and be damaged. When loading vertically mounted units, the labeled side of the CD-ROM faces the extended tabs.

Keep CD-ROM media in its protective case when not in use. When handling CD-ROMs, do not touch the surface. If a CD-ROM has dust or fingerprints on it, it can be cleaned with a lint free cloth (the tape cleaning cloth can be used). Gently wipe the CD-ROM from the center to the outside of the disc.

When you install from CD-ROM media, it is important to know what each media volume contains so that you do not exit the installation process prematurely. The process of creating a master installation list will help you become familiar with what software is contained on each media volume.

The system must be powered on before you can load CD-ROMs in the media drawer. "Starting from a Power Off Condition" on page A-17 describes how to start the system when power is off.

For more information about using CD-ROMs, refer to the book *Basic System Operation, Administration, and Problem Handling*, SC41-5206, and Information APARII10132.

When Installing from Tape

Determine which tape unit to use for the alternate IPL. The tape unit for the alternate IPL on the 9404 system unit and the 9402 system unit is either the tape unit in the system unit or a tape unit attached to the system unit (not the expansion unit). If you have only one tape unit, use it as the tape unit for the alternate IPL. If you do not know which tape unit to use, contact your hardware service representative.

Note: If you are using a 2440 tape drive with the high-speed feature to install a new release, disable the high-speed feature on the tape unit before you load the first tape. Instructions for disabling and enabling the high-speed feature are located in the book *Backup and Recovery*, SC41-5304. If the high-speed feature is not disabled before you begin the installation process, SRC B1xx 1934 is shown. This SRC indicates that you have the wrong tape mounted.

To help prevent media errors, be sure to clean the heads on your alternate IPL tape drive before you begin the installation process. Refer to your tape drive reference guide if you need more information on how to clean the heads. If you receive a media error message during your installation process, go to Appendix A, "Recovery Procedures" on page A-1 for recovery information.

Sharing a Tape Device: If you have a 3480 or 3490 tape device <u>and</u> are sharing that tape device with another system, be sure you inform everyone when you plan to use the tape drive for an installation process. Be sure other users do not assign the tape drive while you are using it because the installation process will fail during the installation of the Licensed Internal Code.

Installing from a Tape Library: When you install a release using a tape library device, do not use the device in library mode or random mode. The 3494 device should use standalone mode. The 9429, 9427, 3590, and 3570 devices should use either automatic, sequential, or manual mode. Refer to the operator's guide for the media library device for information on setting up and using the correct mode.

Installing from an Alternate Installation Device: If you use an alternate installation device, you need to ensure that the device is set up and enabled. You also need to have the CD-ROM for Licensed Internal Code as well as your tape media. Appendix H, "Alternate Installation Device-Overview" on page H-1 describes the alternate installation device function, identifies situations in which older tape devices may require its use. This topic also describes how to set up, enable, or disable an alternate installation device.

Installing from a non-IBM Tape Device: If you are using a non-IBM tape device, read information APARII09865 for more details on installing a release.

If your tape device emulates an IBM tape device, you may experience problems during the installation process, and receive message CPF5401. If this occurs, contact your vendor to confirm whether your tape drive is compatible with V4R2M0.

Determining Installation Device Names

This topic describes the naming conventions for the device that can be used for the alternate IPL. CD-ROM is the installation device for software distribution media. Examples in this book use OPT01 for the optical device (CD-ROM media class). This is the AS/400 normal naming convention. Your system may be set up to use the System/36 naming convention. Use Table 3-8 to select the correct device name for your system or use the name you have selected for your installation device.

Table 3-8. Naming Conventions

MediaType	System/36 Names	AS/400 Normal Names
Optical (CD-ROM)	OPTxx	OPTxx
Cartridge	TC	TAPxx
Reel	T1	TAPxx

Note: When a media library device is created through automatic configuration, the device description will be TAPMLBXX(XX = numbers).

If you are not using the automatic installation process, the display prompts you for the name of your installation device. You could have more than one tape device that can be used for the alternate IPL. You <u>must</u> use your configuration list to determine the name you have assigned to this tape device and enter that name on the Install Options display.

If you are using the automatic installation process, the system determines the name of the installation device from the installation profile on the distribution media. The installation device name will be OPTxx where xx is the number assigned to each optical unit.

This completes this planning topic.

Setting System Values Before Installing

___ 1. Type the Work with System Values command, WRKSYSVAL and press the Enter key. The Work with System Values display appears.

___ 2. Type 2 (Change) in the *Option* column next to the system value you want and press the Enter key. The Change System Value display appears.

___ 3. Check the system values as described in Table 3-9.

Write down the current value of QALWOBJRST and any library names that are shown for QSYSLIBL and QUSRLIBL.

If you want the same values after the installation process completes, you will need to set the system values.

Table 3-9. Verify these System Values Before Installing Software

System Value	Action to Take

QSYSLIBL (1)
  Current libraries:
  _____
  _____
  _____
  _____
 	
QUSRLIBL (1)
  Current libraries:
  _____
  _____
  _____
  _____
  _____
	If you have any of the following, use the spacebar to delete the library from the library list.
	
	• Remove any licensed program libraries.
	
	  Note: If you have OS/400 option 12 (OS/400 - Host Servers) installed, you need to check for library QIWS.
	
	• Remove any secondary language libraries (QSYS29xx).

QALWOBJRST (2):
  Current value:
  _____
	Change the value to *ALL before installing OS/400 or licensed programs.

Notes:

1. Having licensed program libraries or secondary language libraries in these library lists can cause errors when you install or delete software.

2. The Allow Object Restore (QALWOBJRST) system value specifies whether or not objects with security-sensitive attributes can be restored. It is important to set the value to *ALL <u>before</u> performing the following system activities:

   • Installing a new release of OS/400.

   • Installing new licensed programs

   • Applying program temporary fixes (PTFs).

   • Recovering your system.

   These activities may fail if the value of QALWOBJRST is not set to *ALL. To ensure system security, return the QALWOBJRST value to your normal setting after completing the system activity.

This completes this planning topic.

Save the System

Before you install a new release on your system, you should have a current backup copy of your system. You do not need to save your system if you have a current backup copy that can be used to recover your system if a failure occurs. Be sure to keep this backup copy until you save your entire system again.

___ 1. *Before* you begin the process for saving the system for a recovery procedure, determine the tape device for the alternate IPL. This is the device to use when saving your system.

___ 2. Save your system by using the alternate IPL device. Refer to the *Backup and Recovery*, SC41-5304, book for information on saving your system.

> **Note:** Tapes that are created with the Save System (SAVSYS) command cannot be used with the automatic installation process. (Also, tapes that are created with this command do not provide a complete backup.)

This completes this planning topic.

Chapter 4. Replacing a Release Using Automatic Installation

The instructions in this chapter replace the Licensed Internal Code, Operating System/400, and licensed programs currently installed on your system with the V4R2M0 level.

Before You Begin

Complete the planning tasks in Chapter 3, "Preparing to Install Software" on page 3-1.

Should you use this book? Table 2-1 on page 2-1 shows which releases are supported when you use this book.

Should you use the automatic process? The automatic installation process is recommended for most AS/400 systems. However, you <u>must</u> use the manual process for certain situations. Before you begin this procedure, be sure to read "Choose Manual or Automatic Installation" on page 3-22 for a description of the processes and their similarities and differences.

Do you plan to use an alternate installation device? If you are upgrading from a Version 3 release, you cannot use an alternate installation device with automatic installation. Use the manual installation process, Chapter 5, " Replacing a Release Using Manual Installation" on page 5-1, if you plan to use an alternate installation device.

If you are upgrading from a Version 4 release, ensure that the alternate installation device is enabled. See Appendix H, "Alternate Installation Device-Overview" on page H-1 for information on setting up an alternate installation device.

Task 1. Using Automatic Installation

While you perform this function, system reference codes (SRCs) are shown on the data display of the control panel. An SRC is an 11, 11-2, or 11-3 in the function display and any 8 characters in the data display of the control panel. When the system attention light is on and an SRC starting with A6 is displayed, the system is waiting for you to do something (respond to a message or make a device ready). In this book when an SRC is shown with the characters xx (A6xx 6001), it means that a variety of characters may be shown in the place where the xx appears. Some SRCs are also displayed on the console during the installation of Licensed Internal Code.

___ 1. **Important!** <u>Before</u> you start the installation process, ensure that the system meets the minimum requirements and that the V4R2M0 preparation PTFs are successfully applied. Refer to "System Requirements for V4R2M0" on page 3-2 and "Program Temporary Fixes Required Before Installing V4R2M0 Software" on page 3-10. If you attempt to install V4R2M0 before these requirements are met, the installation process <u>will</u> stop. If you are upgrading from V4R1M0, you may continue on to the next step.

___ 2. Verify that your system unit is powered on. If your system unit is not powered on, go to "Starting from a Power Off Condition" on page A-17 and

perform the procedure there. You are directed when to return to this procedure.

___ 3. Arrange your installation media in the order in which you will use them. Refer to Table 3-5 on page 3-14.

___ 4. Load the installation media volume that contains Licensed Internal Code. Wait for the CD-ROM In Use indicator to go out.

Notes:

a. If you are using a tape device instead of the optical device optimized for CD-ROM, you should verify that the tape unit is varied on and allocated to your system.

b. If you are using a device that is enabled as an alternate installation device, you need to load <u>both</u> the Licensed Internal Code CD-ROM and your tape media. Ensure that the tape media and the Licensed Internal Code are at the same release level, or your install will fail.

___ 5. Use the control panel to set the mode to **Normal**.

___ 6. Type the following command:

```
PWRDWNSYS *IMMED RESTART(*YES) IPLSRC(D)
```

Press the Enter key. It could take approximately 15 minutes or more for this step. SRCs continue to appear on the data display area of the control panel.

___ 7. If the system attention light appears <u>and</u> one of the SRCs from Table 5-1 on page 5-17 is displayed in the Data display on the control panel, complete the instructions for that SRC in " Quick Recovery for Common SRCs" on page 5-16.

___ 8. If you see the Alternate Installation Device Failed display, there is an alternate installation device on the system that is enabled. Either it was not disabled before starting the installation, or the device is otherwise not is not ready. Do one of the following:

• To continue the installation with CD-ROM media, press the Enter key.

• To use the alternate installation device, make a note of the message at the bottom of the display.

Press F12 (Cancel). You will see SRC B608 1105 on the control panel. Use the " Quick Recovery for Common SRCs" on page 5-16 to determine how to continue.

___ 9. The Licensed Internal Code - Status display is shown on your console. You do not need to respond to this display.

```
                    Install Licensed Internal Code - Status

Install of the Licensed Internal Code in progress.

            +------------------------------------------------------+
Percent     |XX                                                    |
complete    +------------------------------------------------------+
            0        20        40        60        80       100

Elapsed time in minutes  . . . . . . . . :     x.x









Please wait.


Wait for next display or press F16 for DST main menu
```

__ 10. If an error occurs, you may see a display that requires a response. Perform the action necessary as prompted by the display. Otherwise, continue with the next step.

__ 11. Load the next volume whenever you are prompted by the system. You may be prompted for the next volume several times during the installation process.

> **Note:** The message shown below is sometimes used. However, it is more common to see a similar message that prompts you to type **G** (go) to continue processing.

Follow the instructions on the display.

```
                              Message

Message ID  . . . . . . :   CPA2055     Type . . . . . . . . :   Inquiry
From program  . . . . . :   XXXXXXX___  Severity . . . . . :   99

Message . . . . . :   The next volume in the sequence is needed to
  continue the installation process.

Cause . . . . . . :   The end of the volume has been reached.

Recovery  . . . . :   Load the next volume on the installation device.






Type choice, press Enter.

  Reply . . . . .   _          1=Continue, 2=End installing

_____
```

Type a 1

Press the Enter key.

For Your Information: When the installation process starts to install the operating system, some displays are shown on the display station used as the console. One of the displays shown is the IPL Step in Progress. Some of the IPL steps could take a long time, depending on how much data recovery is required for your system. The last message shown on the IPL Step in Progress display should be Start the Operating System.

__ 12. Status displays appear during the installation process. The screen shown below indicates how much of the installation is complete as well as how many stages remain. You do not need to respond to this status display.

```
Message ID. . . :   CPI2070                        OS/400 Installation Status

               +----------------------------------------------------+
Stage 2        |XXXXXXX                                             |
               +----------------------------------------------------+
               0         20        40        60        80       100

Installation                                                  Objects
Stage                                             Completed    Restored

   1 Creating needed profiles and libraries . . . . :   X

>> 2 Restoring programs to library QSYS . . . . . . :               XXXX

   3 Restoring language objects to library QSYS . . :

   4 Updating program table . . . . . . . . . . . . :

   5 Installing database files. . . . . . . . . . . :

   6 Completing AS/400 installation . . . . . . . . :
```

__ 13. If you are installing from tape and you receive a message Device QINDEV not ready, press the Load and Online buttons of the tape device to make the device ready. Then press the Enter key to continue.

__ 14. One or both of the following displays show the status of the licensed programs and language objects as they are being installed on the system. You do not need to respond to these status displays.

```
                       Installing Licensed Programs
                                                      System: XXXX


      Licensed programs processed . . . . . . . . . . :     0 of XXX

                  Licensed program install in progress
```

The following display is an example of the display that is shown during the installation process.

```
                        Installing Licensed Programs
                                                       System: XXXX
         Licensed programs processed . . . . . . . . . :      X

         Licensed
         Program   Option   Description                            Type
         5769SS1     2       OS/400 - Online Information            2924
```

Note: This display shows which licensed programs and optional parts of licensed programs are being installed. After the *PGM objects and *LNG objects for each licensed program or optional part have been installed, the licensed program identifier disappears from the display and the number in the licensed programs installed field changes to show how many are installed.

__ 15. One of the following messages can appear when the system is ready for the next media volume that contains licensed programs. When you are installing from CD-ROM media, wait for the In Use indicator to go out before you respond to the message.

```
                           Display Messages
                                             System:   XXXX
         Queue . . . . . :  QSYSOPR          Program . . . . :  *DSPMSG
           Library  . . . :    QSYS            Library . . . :
         Severity . . . . :  95              Delivery  . . . :  *BREAK

         Type reply (if required), press Enter.
           Load the next volume in CD-ROM device OPT01 (X G)
             Reply . . . . G
```

```
                           Display Messages
                                             System:   XXXX
         Queue . . . . . :  QSYSOPR          Program . . . . :  *DSPMSG
           Library  . . . :    QSYS            Library . . . :
         Severity . . . . :  95              Delivery  . . . :  *BREAK

         Type reply (if required), press Enter.
           Load a valid volume containing licensed programs in CD-ROM device OPT01 (X G).
             Reply . . . . G
```

Load the next media volume that contains licensed program products and continue the installation.

Type a G

Note: G (go) continues processing. X indicates that there are no more volumes to load that contain licensed programs.

Press the Enter key.

__ 16. When the installation is successfully completed, the Sign On display is shown. (There is no message to indicate that automatic installation completed successfully.) Continue with Task 2. Verifying Automatic Replacement Completion.

If you receive the message Automatic installation not complete, sign on using QSECOFR for your user id and go to Appendix A, Recovery Procedures to determine the problem.

Task 2. Verifying Automatic Replacement Completion

___ 1. The Sign On display is shown on the console after the installation has completed.

```
                              Sign On
                                           System. . . . . . :  XXXX
                                           Subsystem . . . . :  XXXX
                                           Display . . . . . :  XXXXXXXX

              User. . . . . . . . . . . . . . .   QSECOFR
              Password  . . . . . . . . . . . .
              Program/procedure . . . . . . . . .   _____
              Menu  . . . . . . . . . . . . . .    _____
              Current library . . . . . . . . .    _____




```

Type the following:

User QSECOFR
Password (if required)

Press the Enter key.

___ 2. The AS/400 Main Menu (or the menu you chose as your initial menu) is shown on the console.

Type the following command:

GO LICPGM

Press the Enter key.

___ 3. The Work with Licensed Programs display is shown. Use the page down or roll up key to see the second display of the Work with Licensed Programs menu.

```
LICPGM                    Work with Licensed Programs
                                                    System:   XXXX
Select one of the following:

   Secondary Languages
      20. Display installed secondary languages
      21. Install secondary languages
      22. Delete secondary languages

   Redistribution
      40. Create a distribution tape
      41. Work with installation profiles

   Completion Status
      50. Display log for messages

```

Type 50

Press the Enter key.

__ 4. The Display Install History display is shown.

```
                        Display Install History

Type choices, press enter.

   Start date . . . . . .     _____    MM/DD/YY

   Start time . . . . . .     _____    HH:MM:SS

   Output . . . . . . . .   *_____    *, *PRINT
```

Press the Enter key.

__ 5. Look at the messages shown on the Display History Log Contents display.

  • If you had a licensed program installed that was compatible with
    V4R1M0 OS/400 but was not renewed by IBM for V4R2M0, that
    licensed program may not be replaced. Refer to "Mixed Release
    Support-Overview" on page 1-4 for more information.

  • If any of the messages on the display indicate a failure or a licensed
    program that is partially installed, go to Appendix A, Recovery Proce-
    dures to determine the problem.

Otherwise, press F3 (Exit) twice.

More...	You have completed this task. Do you need to install additional licensed programs?
	No **Yes**
	↓ Go to Chapter 9, " Installing Additional Licensed Programs" on page 9-1 and complete the instructions there.
	Do you need to install a secondary language?
	No **Yes**
	↓ Go to Chapter 10, " Installing a Secondary Language" on page 10-1 and complete the instructions there.
	You need to complete the installation process. Go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and complete the instructions there.

Chapter 5. Replacing a Release Using Manual Installation

The instructions in this chapter replace the Licensed Internal Code, Operating System/400, and licensed programs currently installed on your system with the V4R2M0 level.

You can also change the primary language on your system.

Before You Begin

Complete the planning tasks in Chapter 3, "Preparing to Install Software" on page 3-1.

Should you use this book? Table 2-1 on page 2-1 shows which releases are supported when you use this book.

Do You Have to Use the Manual Process? The automatic installation process is recommended for most AS/400 systems. However, you must use the manual process for certain situations. Before you begin this procedure, be sure to read "Choose Manual or Automatic Installation" on page 3-22 for a description of the processes and their similarities and differences.

If you are changing a primary language, you must be aware of additional considerations before you begin the installation. Be sure to read "Considerations When Changing a Primary Language" on page 3-23. You cannot change your primary language to a language you currently have installed as a secondary language on your system. You must delete the secondary language first before you can change it to your primary language.

Do you plan to use an alternate installation device? This chapter contains the steps needed to set up an alternate installation device for upgrades from V3R7M0. See Appendix H, "Alternate Installation Device-Overview" on page H-1 for more information about alternate installation devices.

Task 1. Replacing the Licensed Internal Code

While you perform this function, system reference codes (SRCs) are shown on the data display of the control panel. An SRC is an 11, 11-2, or 11-3 in the function display and any 8 characters in the data display of the control panel. When the system attention light is on and an SRC starting with A6 is displayed, the system is waiting for you to do something (respond to a message or make a device ready). In this book when an SRC is shown with the characters xx (A6xx 6001), it means that a variety of characters may be shown in the place where the xx appears. Some SRCs are also displayed on the console during the installation of Licensed Internal Code.

Determine the installation device to use for the alternate initial program load (IPL). For most cases, this is the optical device that supports the CD-ROM media class.

___ 1. **Important!** Before you start the installation process, ensure that the system meets the minimum requirements and that the V4R2M0 preparation PTFs are successfully applied. Refer to "System Requirements for V4R2M0" on

page 3-2 and "Program Temporary Fixes Required Before Installing V4R2M0 Software" on page 3-10. If you attempt to install V4R2M0 before these requirements are met, the installation process <u>will</u> stop. The system prevents the install from occuring and displays an error. See "System Requirement Recovery" on page A-3.

__ 2. Verify that your system unit is powered on. If your system unit is not powered on, go to "Starting from a Power Off Condition" on page A-17 and perform the procedure there. You are directed when to return to this procedure.

__ 3. Ensure that power is on for the display station used as the console.

__ 4. Arrange your installation media in the order in which you will use them. Refer to Table 3-5 on page 3-14.

__ 5. Load the installation media volume that contains Licensed Internal Code. Wait for the CD-ROM In Use indicator to go out.

   Notes:

   a. If you are using a tape device instead of the optical device optimized for CD-ROM, you should verify that the tape unit is varied on and allocated to your system.

   b. If you are using a device that is enabled as an alternate installation device, you need to load <u>both</u> the Licensed Internal Code CD-ROM and your tape media. Ensure that the tape media and the Licensed Internal Code are at the same release level, or your install will fail.

__ 6. Use the control panel to set the mode selection to **Manual**.

__ 7. Type the following command:

   ```
   PWRDWNSYS *IMMED RESTART(*YES) IPLSRC(D)
   ```

   Press the Enter key. This step could take approximately 15 minutes or more to complete.

__ 8. If the system attention light appears <u>and</u> an SRC listed in Table 5-1 on page 5-17 is displayed in the Data display on the control panel, complete the instructions for that SRC in " Quick Recovery for Common SRCs" on page 5-16.

__ 9. The Select a Language Group display shows the primary language that is currently installed on the system.

   Note: The installation media for Licensed Internal Code is now language-independent. It is very important that you complete this step carefully.

   The language for Licensed Internal Code and OS/400 <u>must</u> match. If the languages do not match, you may have CCSID-related errors and the installation may fail. Refer to Appendix G, "National Language Version Feature Codes" on page G-1 for a list of language feature codes.

```
                    Select a Language Group


The language feature shown is the language feature
installed on the system.

Attention:  To keep the same primary language, ensure that the
media you use for installing the operating system
matches the language feature shown.  If the operating
system media does not match what is shown, the
installation process will attempt to install the
operating system in a different language feature than
Licensed Internal Code.  This is undesirable.


Type choice, press Enter.

   Language feature . . . . . . . . . . . . . .   2924
```

<u>To keep the same primary language</u>, verify that the displayed language feature matches the feature printed on the media that contains the operating system. The operating system media are labeled B29xx_zz, where 29xx indicates the feature for the the primary language.

<u>To change the primary language</u>, type the language feature that appears on the media that contains the operating system.

Press the Enter key.

___ 10. After the language feature is entered, the Confirm Language Group display is shown.

```
                 Confirm Language Group


Language feature  . . . . . . . . . . . . . . :   2924

Press Enter to confirm your choice for language feature.
Press F12 to change your choice for language feature.
```

Press the Enter key.

___ 11. The Install Licensed Internal Code display appears.

```
                    Install Licensed Internal Code

Select one of the following:

      1. Install Licensed Internal Code
      2. Work with Dedicated Service Tools (DST)
      3. Define alternate installation device
```

Type a 1 (See note)

Press the Enter key.

Note: If you have an alternate installation device attached to the system, type a 3 to verify its address and determine whether it is enabled or disabled. Continue with the Verifying Alternate Installation Device Subtask in step 12 on page 5-4.

__ 12. **Verifying Alternate Installation Device Subtask:** The Select Alternate Installation Device display appears.

```
                    Select Alternate Installation Device
                                                   System:    SYSTEMA
        Type Option, press Enter.
          1=Select

        Option     Bus Number          Selected
          _           1
          _           2
          1           3                  *
          _           4
          _           5
          _           6
          _           7
          _           8
          _           9
          _           A
          _           B
          _           C
          _           D
                                                        More.....
        F2=Deselect Device  F3=Exit      F12=Cancel
```

a. Verify that the selected device is on the correct system bus. Type 1 in in the Options field next to the selected bus, and press Enter to view information about the device attached to the bus. All possible bus configurations are shown on this display, even if they are not available.

b. The Select Alternate Installation Device display appears. Use this display to verify or change the resource name, type, model, and serial number for the device.

```
                    Select Alternate Installation Device
                                                   System:   SYSTEMA
        Type Option, press Enter.
          1=Select    5=Details

                     Resource                  Serial
        Option       Name          Type  Model Number    Selected
          _          TAP01         6380   001  00-110221     *
```

c. Make any needed corrections to select, enable, or disable the device.

d. The Install Licensed Internal Code display appears. Type a 1 and press the Enter key.

End of Verifying Alternate Installation Device Subtask.

__ 13. If there is an alternate installation device defined and enabled, the Confirm Alternate Installation Device display appears.

- To install from the alternate installation device, press the Enter key.

- To install from CD-ROM, press F12 to Cancel. You see the Licensed Internal Code display. Perform step 11 on page 5-3 and select option 3

(Define alternate installation device). Perform step 12 and disable the alternate installation device.

___ 14. The Install Licensed Internal Code (LIC) display is shown on your console.

```
                   Install Licensed Internal Code (LIC)

Disk selected to write the Licensed Internal Code to:
    Serial Number      Type     Model    I/O Bus     Controller      Device
    xx-xxxxxxx         xxxx     xxx       x               x            x

Select one of the following:

     1. Restore Licensed Internal Code
     2. Install Licensed Internal Code and Initialize system
     3. Install Licensed Internal Code and Recover Configuration
     4. Install Licensed Internal Code and Restore Disk Unit Data
     5. Install Licensed Internal Code and Upgrade Load Source
```

Type a 1

Press the Enter key.

___ 15. The Install Licensed Internal Code - Status display is shown on your console. You do not need to respond to this display. This display is shown for approximately 30 minutes.

```
                Install Licensed Internal Code - Status

Install of the Licensed Internal Code in progress.

              +----------------------------------------------------+
Percent       |XX                                                  |
complete      +----------------------------------------------------+
              0         20        40        60        80       100

Elapsed time in minutes . . . . . . . . :      x.x
```
```
Please wait.

Wait for next display or press F16 for DST main menu
```

___ 16. If an error occurs, you may see a display that requires a response. Perform the action necessary as prompted by the display. Otherwise, continue with step 17.

___ 17. After approximately 10 minutes, the IPL or Install the System display is shown. The Licensed Internal Code is now replaced. Do not remove the distribution media at this time.

___ 18. The Disk Configuration Warning Report display could be shown. If it is, display the detailed report for each warning shown on the display. Press the

Help key from the Disk Configuration Warning Report display for more information about your choices.

```
                    Disk Configuration Warning Report

Type option, press Enter.
   5=Display Detailed Report

Press F10 to accept all the warnings and continue the IPL.
The system will attempt to correct the warnings.

OPT  Warning
 _   XXXXXXXX XXXX XXXXXXXXX XXXXX XX XXXXX XXXXXXXX
 _   XXXXX_XX_XXXXX XXXXXX_ XXXXXXXX XXXXXXX XXXXXXXXXX_____
 _   _____
 _   _____
 _   _____
 _   _____
 _   _____
 _   _____
 _   _____
 _   _____
                                                         More...

F3=Exit to use Dedicated Service Tools (DST)
F10=Accept warnings and continue the IPL
```

Note: If the warning **Disk unit not formatted for optimal performance** is shown on this display, do the following:

- Type a 5 and press the Enter key to display the detailed report.
- Write down the information displayed. After the upgrade is complete, you will need this information to format these disk units to gain optimal performance.
- Press F12 to cancel and return to the Disk Unit Warning Report.
- Press F10 to accept the warnings and continue the IPL.

If your system configuration has changed, you could see other displays at this point. When the requested information is supplied, the installation continues and the IPL or Install the System display appears. Refer to "System Password" on page E-1 for more information.

This completes Task 1. Continue with Task 2. Replacing the Operating System.

Task 2. Replacing the Operating System

___ 1. The IPL or Install the System display is shown on your console.

```
                     IPL or Install the System

Select one of the following:

     1. Perform an IPL
     2. Install the operating system
     3. Use Dedicated Service Tools (DST)
     4. Perform automatic installation of the operating system
     5. Save Licensed Internal Code
```

Type a 2

Press the Enter key.

___ 2. The Confirm Install of Operating System display is shown on your console.

Press the Enter key.

___ 3. If the Add All Disk Units to the System menu is **not** shown, go to the IPL Step in Progress display in Step 4 on page 5-9.

a. **Adding Disk Units Subtask**

If you see the Add All Disk Units to the System display, choose one of the following:

- If you do not want device parity protection or mirrored protection or user ASPs, select option 3 (Add all disk units to the system auxiliary storage pool). By adding disk units before you install the operating system, you improve your overall system performance because the operating system is distributed across all of your disk units.

Adding disk units takes approximately 45 minutes for the first 64 disk units. If you add more than 64 disk units, it will take an additional 45 minutes.

Note: If you have RAID-capable disk units on your system or if your system ASP has mirrored protection, your display will not have option 3.

- If you want to configure disk protection (device parity protection or mirrored protection) or user ASPs, select option 2 (Perform disk configuration using DST). You will see the Use Dedicated Service Tools (DST) menu. Refer to the *Backup and Recovery*, SC41-5304, book for information about the proper sequence for configuring disk protection.

```
                         Add All Disk Units to the System
                                                     System: XXXX

 Select one of the following:

     1. Keep the current disk configuration
     2. Perform disk configuration using DST
     3. Add all disk units to the system auxiliary storage pool


```

Type a 3

Press the Enter key.

Note: If either the Disk Configuration Error Report display or the Disk Configuration Warning Report display appears, go to Appendix F, "Disk Configuration Warning and Error Messages" on page F-1 to determine the appropriate action to take.

b. You could see the following display if your disk configuration has changed.

```
                        Problem Report

Note: Some action for the problems listed below may need to
be taken.  Please select a problem to display more detailed
information about the problem and to see what possible
action may be taken to correct the problem.

Type option, press Enter.
  5=Display Detailed Report

OPT  Problem
 _   _____
 _   _____
```

Type a 5 next to the problem and press the Enter key to display the
detailed report.

c. If the following display is shown, a disk unit that you selected to add to
your disk configuration may already have data on it. If you choose to
continue, any data on the disk units listed will be removed.

```
                    Possibly Configured Units

Problem: These non-configured units appear to be
configured units of some other disk configuration and
may contain valid data.  This option will clear the
data from these units and destroy the other disk
configuration.

Press Enter to continue
Press F12=Cancel to return and change your choices.

   Serial                       Resource    Other System
   Number     Type  Model  Name          Serial Number
   _____    ____   ___   _____      _____
   _____    ____   ___   _____      _____
   _____    ____   ___   _____      _____
   _____    ____   ___   _____      _____
   _____    ____   ___   _____      _____
   _____    ____   ___   _____      _____
                                                         More..

 F3=Exit        F12=Cancel
```

Be certain that you want to configure the disk before you continue.
Follow the instructions on the display. Press Enter to return to the
Problem Report screen. Press F10 to continue the Add Disk Unit
subtask.

d. The following display shows the percentage of disk units added. This
display does not require a response.

```
                            Function Status
You selected to add units.                                    _____



                          ___ % Complete
                 _____ _____



         _____
         _____
```

    e. When the process completes, continue the manual installation process with step 4. **This completes the subtask for adding disk units.**

  4. Status displays are shown on the console. You do not need to respond to any of these status displays. The following is an example of a status display:

```
                          IPL Step in Progress

  IPL step . . . . . . :   Storage Management Recovery

```
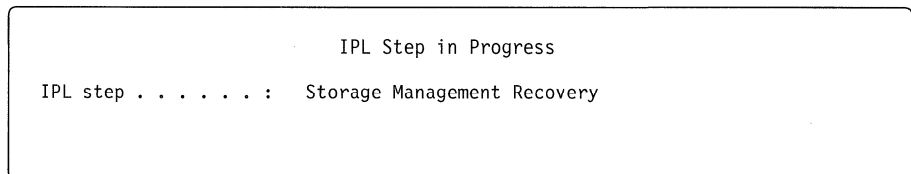
The following list shows some of the IPL steps that are shown on the IPL Step in Progress display:

    Authority Recovery
    Journal Recovery
    Database Recovery
    Journal Synchronization
    Start the Operating System

Some of the IPL steps could take a long time. The time varies depending on how much data recovery is required for your system.

  5. Load the next volume whenever you are prompted by the system. For CD-ROM distribution media, this is the CD-ROM labeled B29xx_01. You may be prompted for the next volume several times during the installation process.

Note: The message shown below is most commonly used. However, you could see a similar message that prompts you to type **G** (go) to continue processing.

Follow the instructions on the display.

```
                              Message

Message ID  . . . . . . :  CPA2055     Type . . . . . . . :   Inquiry
From program  . . . . . :  XXXXXXX___  Severity . . . . . :   99

Message . . . . . :   The next volume in the sequence is needed to
  continue the installation process.

Cause . . . . . . :   The end of the volume has been reached.

Recovery  . . . . :   Load the next volume on the installation device.




Type choice, press Enter.

  Reply . . . . .  _            1=Continue, 2=End installing


_____
```

Type a 1

Press the Enter key.

___ 6. The Install the Operating System display is shown when the IPL for the Licensed Internal Code is complete.

```
                   Install the Operating System

Type options, press Enter.

    Install
      option . . . . . . 1          1=Take defaults (No other
                                      options are displayed)
                                    2=Change install options

Date:
  Year . . . . . .  __             00-99
  Month  . . . . .  __             01-12
  Day  . . . . . .  __             01-31

Time:
  Hour . . . . . .  __             00-23
  Minute . . . . .  __             00-59
  Second . . . . .  __             00-59
```

Type the following:

Install option 1
Date: (Use the current year, month, and day.)
Time: (Use the current time, 24-hour clock.)

Press the Enter key.

___ 7. Status messages are shown during the installation process. You do not need to respond to any of these status displays. The following is an example of a status display. This display is shown for a long time; it could be 2 hours or more.

```
 Message ID. . . :   CPI2070                   OS/400 Installation Status

               +-----------------------------------------------------+
 Stage 2       |XXXXXXX                                              |
               +-----------------------------------------------------+
               0        20       40       60       80      100
 Installation                                             Objects
 Stage                                        Completed    Restored

        1 Creating needed profiles and libraries . . . . :    X

   >> 2 Restoring programs to library QSYS . . . . . . :                XXXX

        3 Restoring language objects to library QSYS . . :

        4 Updating program table . . . . . . . . . . . . :

        5 Installing database files. . . . . . . . . . . :

        6 Completing AS/400 installation . . . . . . . . :
```

__ 8. The display could be blank for a long time. Then the Installation Status screen appears again with the indicator pointing to stage 5.

__ 9. After the base part of the operating system has been replaced, the Sign On display is shown on your console.

Load the media volume that contains optional parts of OS/400. This volume is labeled B29xx_02, where 29xx indicates the identifier for primary language.

This completes Task 2. Continue with Task 3. Replacing the Licensed Programs.

Task 3. Replacing the Licensed Programs

__ 1. Begin this task at the Sign On display.

```
                               Sign On
                                            System. . . . . . :   XXXX
                                            Subsystem . . . . :   XXXX
                                            Display . . . . . :   XXXXXXXX

             User. . . . . . . . . . . . . . .    QSECOFR
             Password  . . . . . . . . . . . .
             Program/procedure . . . . . . . .    _____
             Menu  . . . . . . . . . . . . . .    _____
             Current library . . . . . . . . .    _____
```

Type the following:

User QSECOFR
Password (if required)

Press the Enter key.

__ 2. The IPL Options display is shown.

```
                              IPL Options

     Type choices, press Enter.

         System date . . . . . . . . . . . . . . .  XX / XX / XX     MM / DD / YY
         System time . . . . . . . . . . . . . . .  XX : XX : XX     HH : MM : SS
         Clear job queues. . . . . . . . . . . . .  N                Y=Yes, N=No
         Clear output queues . . . . . . . . . . .  N                Y=Yes, N=No
         Clear incomplete job logs . . . . . . . .  N                Y=Yes, N=No
         Start print writers . . . . . . . . . . .  Y                Y=Yes, N=No
         Start system to restricted state  . . . .  N                Y=Yes, N=No

         Set major system options. . . . . . . . .  N                Y=Yes, N=No
         Define or change system at IPL. . . . N             Y=Yes, N=No






     Last power-down operation was ABNORMAL
```

Notes:

    a. Ignore the message on the bottom of the IPL Options display.

    b. If you need to change system values, such as the value for the QSECURITY system value, you can do so now. Type Y for the *Define or change the system at IPL* prompt. Follow the instructions on the displays.

Type the following:

    System date   (Use the current date.)
    System time   (Use the current time, 24-hour clock.)
    Set major system options N

Press the Enter key.

___ 3. The Edit Rebuild of Access Paths display could be shown. If it is, press the Enter key to continue.

___ 4. Additional display messages could be shown.

    Press the Enter key after each message to continue.

___ 5. The AS/400 Main Menu (or the menu you chose as an initial menu) is shown on your console.

Do the following to put the system in a restricted state and filter the messages that are displayed:

    a. Type the following command:

      CHGMSGQ QSYSOPR *BREAK SEV(60)

    Press the Enter key.

    b. A message display could be shown.

    Press the Enter key.

    Note: Ignore the messages that are shown.

    c. Type the following command:

> ENDSBS *ALL *IMMED

Press the Enter key.

d. The message `System ended to restricted condition` is shown. Press the Enter key to continue.

e. Type the following command:

> CHGMSGQ QSYSOPR *BREAK SEV(95)

Press the Enter key.

f. A message display could be shown.

Press the Enter key.

Note: Ignore the messages that are shown.

___ 6. The AS/400 Main Menu (or the menu you chose as an initial menu) is shown on your console.

Type the following command:

GO LICPGM

Press the Enter key.

___ 7. The Work with Licensed Programs display is shown.

```
LICPGM                    Work with Licensed Programs
                                                      System:   XXXX
Select one of the following:

  Manual Install
    1. Install all


```

Type a 1

Press the Enter key.

___ 8. The Manual Install display is shown.

```
                             Manual Install
                                                      System:   XXXX
  Type choices, press Enter.

     Install option . . .   1          1=Installed products
                                       2=All products
                                       3=New products
                                       4=Installed and
                                          additionally selected products

     Installation device    OPT01      Name

     Replace if current     N          Y=Yes
                                       N=No

     Automatic IPL  . . .   N          Y=Yes
                                       N=No


```

Type the following:

Install option 4 (See note)
Installation device OPT01 (See note)

Replace if current N
Automatic IPL N

Press the Enter key.

Notes:

a. If you created a customized installation list, select install option 4 (Installed and additionally selected products). This option only appears if you used the LICPGM menu option to Prepare for Install, described in "Creating and Customizing an Installation List" on page 3-15.

Otherwise, select install option 1 (Installed products).

b. OPT01 is used for the installation device in this example. If you are using a different naming convention, type the name you have assigned to the installation device.

___ 9. One or both of the following displays show the status of the licensed programs and language objects as they are being installed on the system. You do not need to respond to these status displays.

```
                      Installing Licensed Programs
                                                    System: XXXX


  Licensed programs processed . . . . . . . . . . :    0 of XXX

                  Licensed program install in progress


```

The following display is an example of the display that is shown during the installation process.

```
                      Installing Licensed Programs
                                                    System: XXXX
  Licensed programs processed  . . . . . . . . . :    X

  Licensed
  Program    Option   Description                           Type
  5769SS1      2      OS/400 - Online Information            2924


```

Note: This display shows which licensed programs and optional parts of licensed programs are being installed. After the *PGM objects and *LNG objects for each licensed program or optional part have been installed, the licensed program identifier disappears from the display and the number in the licensed programs installed field changes to show how many are installed.

___ 10. If a message similar to the following appears, load the next media volume that contains licensed program products and continue the installation. When you are installing from CD-ROM media, wait for the In Use indicator to go out before you respond to the message.

```
                         Display Messages
                                           System:    XXXX
   Queue . . . . . :   QSYSOPR         Program . . . . :    *DSPMSG
      Library  . . . :    QSYS            Library . . . :
   Severity . . . . :   95              Delivery  . . . :    *BREAK

   Type reply (if required), press Enter.
     Load the next volume in CD-ROM device OPT01 (X G)
         Reply . . . . G
```

Type a G

Note: G (go) continues processing. X indicates that there are no more volumes to load that contain licensed programs.

Press the Enter key.

__ 11. The Work with Licensed Programs display is shown on your console when the installation process is complete. One of the following messages is shown on the bottom of the Work with Licensed Programs display:

- Work with licensed programs function has completed.

- Work with licensed programs function **not** complete.

For either message, continue with Task 4. Verifying Replacement Completion.

Task 4. Verifying Replacement Completion

__ 1. The Work with Licensed Programs display is shown. Use the page down or roll up key to see the second display of the Work with Licensed Programs menu.

```
   LICPGM                    Work with Licensed Programs
                                                    System:   XXXX
   Select one of the following:

      Secondary Languages
        20. Display installed secondary languages
        21. Install secondary languages
        22. Delete secondary languages

      Redistribution
        40. Create a distribution tape
        41. Work with installation profiles

      Completion Status
        50. Display log for messages
```

Type 50

Press the Enter key.

__ 2. The Display Install History display is shown.

```
                          Display Install History

Type choices, press enter.

   Start date . . . . . .      _____      MM/DD/YY

   Start time . . . . . .      _____      HH:MM:SS

   Output . . . . . . . .   *_____      *, *PRINT

```

Press the Enter key.

__ 3. Look at the messages shown on the Display History Log Contents display.

- If you had a licensed program installed that was compatible with V4R1M0 OS/400 but was not renewed by IBM for V4R2M0, that licensed program may not be replaced. Refer to "Mixed Release Support-Overview" on page 1-4 for more information.

- If any of the messages on the display indicate a failure or a licensed program that is partially installed, go to Appendix A, Recovery Procedures to determine the problem.

Otherwise, press F3 (Exit) twice.

More...	You have completed this task. Do you need to install additional licensed programs?
	No **Yes**
	↓ Go to Chapter 9, " Installing Additional Licensed Programs" on page 9-1 and complete the instructions there.
	Do you need to install a secondary language?
	No **Yes**
	↓ Go to Chapter 10, " Installing a Secondary Language" on page 10-1 and complete the instructions there.
	You need to complete the installation process. Go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and complete the instructions there.

Quick Recovery for Common SRCs

This section gives a brief explanation of common SRCs that you may see while replacing a release.

Table 5-1 (Page 1 of 2). Common SRC codes

Symptom	Action
A1xx 1933 A12x 1933 (x is any character)	This SRC is shown if the installation device for the alternate IPL is not ready. Make sure the correct media volume is loaded and make the device ready. Wait for the system attention light to go off. Then continue with the installation procedure you were performing. **Note:** If you do not respond to these SRCs immediately, they may be replaced by B1xx 4507, B1xx 4505, or B1xx 1933. The system attention light should light up <u>again</u>. If the system attention light stays on for more than 5 minutes, check to see if you have the correct volume loaded in the installation device for the alternate IPL and make the device ready. Then perform the appropriate procedure under "Quick Recovery from SRC" on page 5-18.
A600 1103	This SRC is shown when Licensed Internal Code is damaged. Use the control panel to set the IPL type to D and the mode to Manual. Then use the instructions for Chapter 5, " Replacing a Release Using Manual Installation" on page 5-1.
A600 1104	This SRC is shown if the installation media is not readable. Either the media is dirty or damaged, or there is an error with the CD-ROM device. Then perform the appropriate procedure under "Quick Recovery from SRC" on page 5-18.
B101 4500	This SRC is shown when an error is detected with the MFIOP. Try the installation again. If the same error occurs, contact your service representative.
B1xx 4504 B1xx 1933	This SRC is shown when the system cannot locate the device used for the alternate IPL. Check that the installation media is loaded in correct device and, if necessary, make the device ready. Then perform the appropriate procedure under "Quick Recovery from SRC" on page 5-18.
B1xx 4505	These SRCs are shown if the installation media is dirty or if the wrong media was loaded. Verify that the correct media is loaded. If the problem still remains, clean the CD-ROM disc. If you are using tape, clean the tape head and tape path. Then perform the appropriate procedure under "Quick Recovery from SRC" on page 5-18.
B1xx 4507	These SRCs are shown if the tape device for the alternate IPL was not found or was not ready. Make sure the tape device is powered on and the correct tape is loaded and ready. To make tape devices ready, you may need to open and close the tape device door. Then perform the appropriate procedure under "Quick Recovery from SRC" on page 5-18.
B350 420A	This SRC may appear if you use the command `PWRDWNSYS RESTART(*YES) IPLSRC(D)` and you have an AS/400 model 530 with feature code 2150. To work around this problem; power off the system, change the IPL mode to D, then power on the system.
B608 1105	This SRC occurs when you exit from the automatic installation because an alternate installation device attached to the system is enabled but is otherwise not ready. The device may not be ready because the tape is not loaded or the device may not be enabled as an alternate installation device. Or, the device may have a problem. To use the alternate installation device, do the following: Power down the system. If necessary, fix the device. Power on the system. Verify that the alternate installation device is enabled. Load the tape media in the alternate installation device and start the installation procedure again.
B900 3121	This SRC occurs when an IPL is attempted after an installation failure. You need to re-install the system, starting with the media volume containing the base operating system. (For CD-ROM, this volume is labeled B29xx_01. Then perform the appropriate procedure under "Quick Recovery from SRC" on page 5-18.

Table 5-1 (Page 2 of 2). Common SRC codes

Symptom	Action
2507 0001 2642 0001 2643 0001	These SRCs are shown if a tape is not loaded in the tape device for the alternate IPL. Make sure the correct tape is loaded. Then perform the appropriate procedure under "Quick Recovery from SRC" on page 5-18.
2644 3136	This SRC is shown if the tape device is assigned to another system. Go to the other system and vary off this tape device. Make sure the correct tape is loaded. Then perform the appropriate procedure under "Quick Recovery from SRC" on page 5-18.
Any other SRC	Go the Appendix A, Recovery Procedures, and follow the instructions there.

Quick Recovery from SRC

After taking the action specified for the SRC, perform one of the following procedures. Use the procedure that is appropriate for the installation process in use when the SRC appeared.

If You Were Using Automatic Installation

1. Set the mode selector on the control panel to **Manual**.

2. Press the power switch to delayed off and wait for the entire system to power off.

3. Set the mode selector on the control panel to **Normal**.

4. Press the power switch on and make the installation device ready. Then continue with step 12 on page 4-4. If the system attention light appears and the same SRC is displayed again, go to "Licensed Internal Code Recovery" on page A-5.

If You Were Using Manual Installation

___ 1. Make sure that the media is loaded in the installation device for the alternate IPL.

___ 2. Press the power switch to delayed off and wait for the entire system to power off.

___ 3. Press the power switch on and make the installation device ready. Wait for the system attention light to light up. If the system attention light appears and the same SRC is displayed again, go to "Licensed Internal Code Recovery" on page A-5.

Chapter 6. Installing a New AS/400 System with the Operating System Already Installed

This part contains instructions to install licensed programs that are on the distribution media. These instructions assume that V4R2M0 of the Licensed Internal Code and the operating system are installed and the system has been powered down.

If you are not sure if the operating system is already installed, contact your service representative.

Before You Begin

Complete the planning tasks in Chapter 3, "Preparing to Install Software" on page 3-1.

Should you use this book? Table 2-1 on page 2-1 identifies which releases are supported with this book.

Note: If you have added a new disk unit to your system, you should load the operating system again to use that disk unit. This will improve the performance of your system by distributing the operating system across all of your disk units. Complete Chapter 7, "Installing a New AS/400 System without the Operating System Installed" on page 7-1 if you are adding disk units. If you are planning to use device parity protection, auxiliary storage pools, or mirrored protection, refer to the book *Backup and Recovery*, SC41-5304 , before you begin.

Task 1. Doing the Initial Program Load (IPL)

__ 1. Ensure that the system is powered down before you begin.

__ 2. Turn the power on for the display station used as the console.

__ 3. If the installation device has separate on and off switches, verify that the switch is in the On position.

__ 4. Use the control panel to set the IPL type to **A** and the mode selection to **Manual**.

__ 5. Press the Enter button on the control panel.

__ 6. Turn the power on for the system by pushing the power switch.

__ 7. After some time, the IPL or Install the System display is shown,

```
                         IPL or Install the System

 Select one of the following:

     1. Perform an IPL
     2. Install the operating system
     3. Use Dedicated Service Tools (DST)
     4. Perform automatic installation of the operating system
     5. Save Licensed Internal Code
```

Type a 1

Press the Enter key.

__ 8. Status displays are shown on the console. You do not need to respond to any of these status displays. The following is an example of a status display:

```
                          IPL Step in Progress

    IPL step . . . . . . :    Storage Management Recovery


```

The following list shows some of the IPL steps that are shown on the IPL Step in Progress display:

Authority Recovery
Journal Recovery
Database Recovery
Journal Synchronization
Start the Operating System

Some of the IPL steps could take a long time.

__ 9. Several messages could be shown on the console. The following is an example of a message that could be shown:

```
                          Display Messages
                                   System. . . . . :    XXXX
    Queue  . . . . . :   QSYSOPR   Program . . . . :    *DSPMSG
      Library  . . . :   QSYS        Library . . . :
    Severity . . . . :   10        Delivery  . . . :    *BREAK

    Press Enter to continue.
      System object xxxxx created again during IPL.

```

To continue, press the Enter key after each message.

__ 10. The Sign On display is shown.

```
                        Sign On
                                  System. . . . :   XXX
                                  Subsystem . . :   XXXXX
                                  Display . . . :   XXXXXXXX

      User. . . . . . . . . . . . . QSECOFR

      Program/procedure . . . . . . . _____
      Menu. . . . . . . . . . . . . . _____
      Current library . . . . . . . . _____


```

Type QSECOFR for the *User* prompt.

Press the Enter key.

Note: You may be required to change the password for the QSECOFR user profile. Record the new password now and store it in a safe location.

___ 11. If the Select Products to Work with PTFs display is shown, press F3 (Exit).

___ 12. The IPL Options display is shown.

```
                          IPL Options

Type choices, press Enter.

System date . . . . . . . . . . . . . . . .  XX / XX / XX    MM / DD / YY
System time . . . . . . . . . . . . . . . .  XX : XX : XX    HH : MM : SS
Clear job queues. . . . . . . . . . . . . .  N              Y=Yes, N=No
Clear output queues . . . . . . . . . . . .  N              Y=Yes, N=No
Clear incomplete job logs . . . . . . . . .  N              Y=Yes, N=No
Start print writers . . . . . . . . . . . .  Y              Y=Yes, N=No
Start system to restricted state  . . . . .  Y              Y=Yes, N=No


Set major system options. . . . . . . . . .  Y              Y=Yes, N=No
Define or change the system at IPL. . . . .  N              Y=Yes, N=No




Last power-down operation was ABNORMAL
```

Notes:

a. Ignore the message on the bottom of the IPL Options display.

b. If you need to change system values, such as the value for the QSECURITY system value, you can do so now. Type Y for the *Define or change the system at IPL* prompt. If you do, also use the control panel to set the mode selection to the mode on which you want the system to run. Follow the instructions on the displays.

Type the following:

System date (Use the current date.)
System time (Use the current time, 24-hour clock.)
Start system to restricted state Y
Set major system options Y

Press the Enter key.

___ 13. Additional display messages could be shown.

Press the Enter key after each message to continue.

___ 14. The Set Major System Options display is shown.

```
Type choices, press Enter.

Enable automatic configuration . . . . . .  Y              Y=Yes, N=No
Device configuration naming  . . . . . . .  *NORMAL        *NORMAL, *S36,
*DEVADR
Default special environment. . . . . . . .  *NONE          *NONE, *S36
```

Respond to the prompts on the Set Major System Options display.

• Enable automatic configuration

The value Y (Yes) automatically configures local devices. N (No) indicates no automatic configuration. Complete information about automatic configuration can be found in the *Local Device Configuration*, SC41-5121 , book.

- Device configuration naming

  Specify *NORMAL to use a naming convention unique to the AS/400 system. The value *S36 uses a naming convention similar to System/36. Complete information about device configuration naming, including *DEVADR, can be found in the *Local Device Configuration*, SC41-5121, book.

- Default special environment

  The default value *NONE indicates no special environment. *S36 sets up the System/36 environment. Refer to the *System/36 Environment Programming*, SC41-4730, book for more information about working in the System/36 environment on the AS/400 system.

  Press the Enter key.

___ 15. The Edit Rebuild of Access Paths display could be shown. If it is, press the Enter key to continue.

___ 16. Several blank displays and Display Messages displays are shown. To continue, press the Enter key for each message display. Do not respond to blank displays.

The following display is an example of a message that could be shown:

```
                               Display Messages
                                         System. . . . . :   XXXX
        Queue  . . . . . :   QSYSOPR       Program . . . . :   *DSPMSG
          Library  . . . :     QSYS          Library . . . :
        Severity . . . . :   10            Delivery  . . . :   *BREAK

        Press Enter to continue.
          All jobs in system lost.   Job and output queues cleared.
```

___ 17. When the AS/400 Main Menu is shown on your console, you have completed this task. Continue with Task 2. Installing the Licensed Programs.

Task 2. Installing the Licensed Programs

___ 1. Begin at the AS/400 Main Menu.

Do the following to put the system in a restricted state and filter the messages that are displayed:

a. Type the following command:

```
CHGMSGQ QSYSOPR *BREAK SEV(60)
```

Press the Enter key.

b. A message display could be shown.

Press the Enter key.

Note: Ignore the messages that are shown.

   c. Type the following command:

      `ENDSBS *ALL *IMMED`

      Press the Enter key.

   d. The message `System ended to restricted condition` is shown. Press the Enter key to continue.

   e. Type the following command:

      `CHGMSGQ QSYSOPR *BREAK SEV(95)`

      Press the Enter key.

   f. A message display could be shown.

      Press the Enter key.

      Note: Ignore the messages that are shown.

___ 2. When the AS/400 Main Menu is displayed, load the media volume that contains optionally installable parts of OS/400. For CD-ROM media, this volume is labeled B29xx_02, where 29xx indicates the primary language of the system. Load the volume.

___ 3. Type the following command:

    `GO LICPGM`

    Press the Enter key.

___ 4. The Work with Licensed Programs display is shown.

    Note: If you do not want to install all of the licensed programs that are on the distribution media go to Chapter 9, Installing Additional Licensed Programs to install one or more from the list of licensed programs on the Install Licensed Programs display.

```
 LICPGM                      Work with Licensed Programs
                                                        System:    XXXX
 Select one of the following:

   Manual Install
      1. Install all


```

Type a 1

Press the Enter key.

___ 5. The Manual Install display is shown.

```
                              Manual Install
                                                        System:    XXXX

        Type choices, press Enter.


          Install option . . .   3           1=Installed products
                                             2=All products
                                             3=New products
                                             4=Installed and
                                               additionally selected products

          Installation device    OPT01        Name

          Replace if current      N           Y=Yes
                                              N=No

          Automatic IPL  . . .    N           Y=Yes
                                              N=No


```

Type the following:

Install option 3
Installation device OPT01 (See note)
Replace if current N
Automatic IPL N

Press the Enter key.

Notes:

   a. Install option 4 (Installed and additionally selected products) only
      appears if you used the Prepare for Install option on the LICPGM menu
      and created a customized installation list.

   b. OPT01 is used for the installation device in this example. If you are
      using a different naming convention, type the name you have assigned
      to the installation device.

___ 6. One or both of the following displays show the status of the licensed pro-
        grams and language objects as they are being installed on the system. You
        do not need to respond to these status displays.

```
                         Installing Licensed Programs
                                                        System: XXXX


        Licensed programs processed . . . . . . . . . . :     0 of XXX
                         Licensed program install in progress


```

The following display is an example of the display that is shown during the
installation process.

```
                    Installing Licensed Programs
                                                    System: XXXX
      Licensed programs processed  . . . . . . . . . . :    X

      Licensed
      Program   Option  Description                         Type
      5769SS1     2      OS/400 - Online Information         2924
```

Note: This display shows which licensed programs and optional parts of licensed programs are being installed. After the *PGM objects and *LNG objects for each licensed program or optional part have been installed, the licensed program identifier disappears from the display and the number in the licensed programs installed field changes to show how many are installed.

___ 7. If a message similar to the following appears, load the next media volume that contains licensed program products and continue the installation. When you are installing from CD-ROM media, wait for the In Use indicator to go out before you respond to the message.

```
                         Display Messages
                                         System:   XXXX
      Queue  . . . . . :  QSYSOPR         Program . . . . :  *DSPMSG
        Library  . . . :  QSYS              Library . . . :
      Severity . . . . :  95              Delivery  . . . :  *BREAK

      Type reply (if required), press Enter.
        Load the next volume in CD-ROM device OPT01 (X G)
          Reply . . . . G
```

Type a G

Note: G (go) continues processing. X indicates that there are no more volumes to load that contain licensed programs.

Press the Enter key.

___ 8. The message shown in the previous step could appear several times when you use CD-ROM media. Take the appropriate action, as follows:

- When you have more media volumes that contain licensed programs to load, type a G and press the Enter key.

- When you do not have any more volumes that contain licensed programs, type an X and press the Enter key.

___ 9. The Work with Licensed Programs display is shown on your console when the installation process is complete. One of the following messages is shown on the bottom of the Work with Licensed Programs display:

Work with licensed programs function has completed. Press F3 (Exit) to return to the AS/400 Main Menu.

Work with licensed programs function **not** complete. Go to Appendix A, Recovery Procedures to determine the problem.

More...	You have completed this task. Do you need to install additional licensed programs?
No	**Yes**
↓	Go to Chapter 9, " Installing Additional Licensed Programs" on page 9-1 and complete the instructions there.
	Do you need to install a secondary language?
No	**Yes**
↓	Go to Chapter 10, " Installing a Secondary Language" on page 10-1 and complete the instructions there.
	You need to complete the installation process. Go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and complete the instructions there.

Chapter 7. Installing a New AS/400 System without the Operating System Installed

This chapter contains instructions to install the operating system and licensed programs on your new system. It explains how to change the primary language when you are installing the operating system if you need to change it at this time. Refer to the book *National Language Support*, SC41-5101, for any special considerations you may need to know about other languages.

Note: These instructions assume that the V4R2M0 release of the Licensed Internal Code is installed and the system has been powered down. If you do not know what level of Licensed Internal Code is on your system, contact your service representative.

Before You Begin

Complete the planning tasks in Chapter 3, "Preparing to Install Software" on page 3-1.

Should you use this book? Table 2-1 on page 2-1 identifies which releases are supported with this book.

Task 1. Installing the Operating System

___ 1. Ensure that the system is powered down before you begin.

___ 2. Turn the power on for the display station used as the console.

___ 3. If the installation device has separate on and off switches, verify that the switch is in the On position.

___ 4. Use the control panel to set the IPL type to **A** and the mode selection to **Manual**.

___ 5. Press the Enter button on the control panel.

___ 6. Turn the power on for the system by pushing the power switch.

   Note: If either the Disk Configuration Error Report display or the Disk Configuration Warning Report display appears, go to Appendix F, "Disk Configuration Warning and Error Messages" on page F-1 to determine the appropriate action to take.

___ 7. The IPL or Install the System menu is shown on your console.

```
                          IPL or Install the System

Select one of the following:

    1. Perform an IPL
    2. Install the operating system
    3. Use Dedicated Service Tools (DST)
    4. Perform automatic installation of the operating system
    5. Save Licensed Internal Code
```

7-1

Load the first volume of installation media that contains OS/400. (This volume is labeled B29xx_01, where 29xx is the identifier for the primary language.) When you are installing from CD-ROM, wait until the CD-ROM In Use indicator goes out before you continue. <u>Then</u> do the following to respond to the display:

Type a 2

Press the Enter key.

__ 8. The Confirm Install of Operating System display is shown on your console.

Press the Enter key.

__ 9. The Select a Language Group display shows the primary language currently on the system. This value should match the language feature number that is printed on the installation media. Refer to Appendix G, "National Language Version Feature Codes" on page G-1 for a list of language feature codes.

```
                        Select a Language Group

    Note:  The language feature shown is the language feature
    installed on the system.

    Type choice, press Enter.

       Language feature . . . . . . . . . . . . . . .  2924


```

Verify that the displayed value is correct, or type the numbers of the feature code for the language you want.

Press the Enter key.

__ 10. After the language feature is entered, the Confirm Language Feature Selection display is shown on your console.

Press the Enter key.

__ 11. If the Add All Disk Units to the System menu is **not** shown, go to the IPL Step in Progress display in step 12 on page 7-4.

  a. **Adding Disk Units Subtask**

   If you see the Add All Disk Units to the System display, choose one of the following:

   • If you do not want device parity protection or mirrored protection or user ASPs, select option 3 (Add all disk units to the system auxiliary storage pool). By adding disk units before you install the operating system, you improve your overall system performance because the operating system is distributed across all of your disk units.

   Adding disk units takes approximately 45 minutes for the first 64 disk units. If you add more than 64 disk units, it will take an additional 45 minutes.

   Note: If you have RAID-capable disk units on your system or if your system ASP has mirrored protection, your display will not have option 3.

- If you want to configure disk protection (device parity protection or mirrored protection) or user ASPs, select option 2 (Perform disk configuration using DST). You will see the Use Dedicated Service Tools (DST) menu. Refer to the *Backup and Recovery*, SC41-5304, book for information about the proper sequence for configuring disk protection.

```
                    Add All Disk Units to the System
                                                    System: XXXX

Select one of the following:

    1. Keep the current disk configuration
    2. Perform disk configuration using DST
    3. Add all disk units to the system auxiliary storage pool
```

Type a 3

Press the Enter key.

Note: If either the Disk Configuration Error Report display or the Disk Configuration Warning Report display appears, go to Appendix F, "Disk Configuration Warning and Error Messages" on page F-1 to determine the appropriate action to take.

b. You could see the following display if your disk configuration has changed.

```
                        Problem Report

Note: Some action for the problems listed below may need to
be taken.  Please select a problem to display more detailed
information about the problem and to see what possible
action may be taken to correct the problem.

Type option, press Enter.
  5=Display Detailed Report

OPT  Problem
 _   _____
 _   _____
```
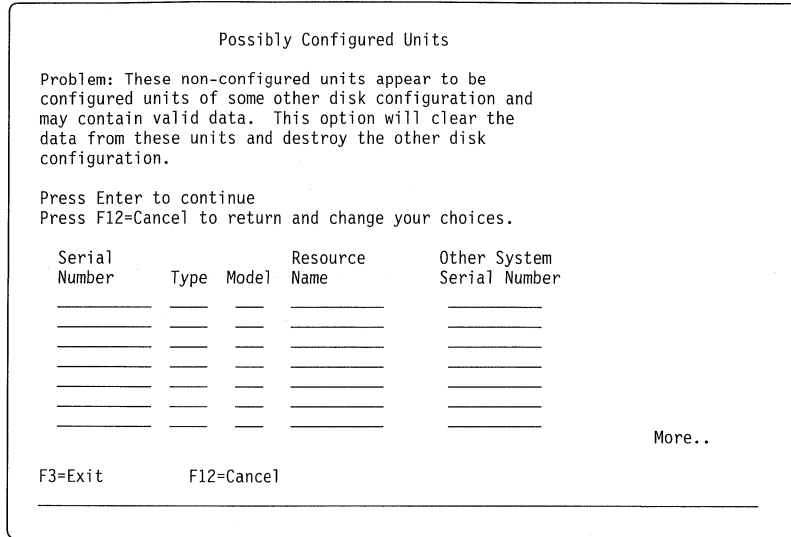
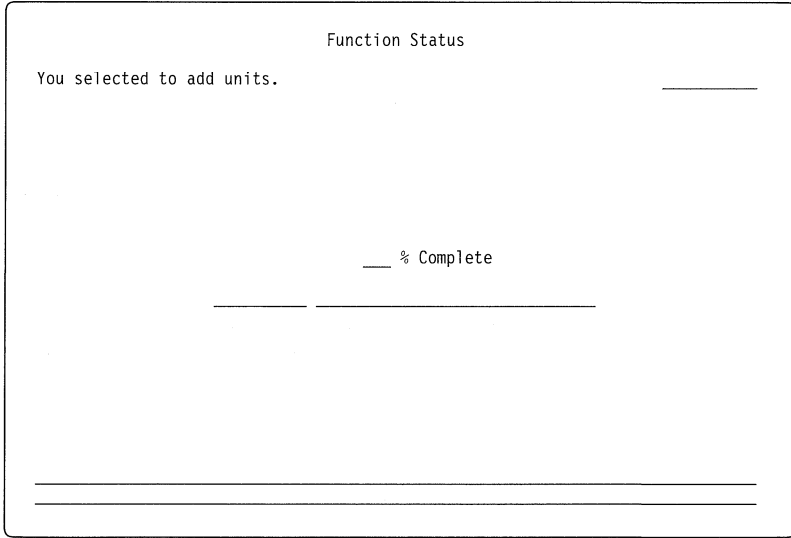Type a 5 next to the problem and press the Enter key to display the detailed report.

c. If the following display is shown, a disk unit that you selected to add to your disk configuration may already have data on it. If you choose to continue, any data on the disk units listed will be removed.

```
                      Possibly Configured Units

  Problem: These non-configured units appear to be
  configured units of some other disk configuration and
  may contain valid data.  This option will clear the
  data from these units and destroy the other disk
  configuration.

  Press Enter to continue
  Press F12=Cancel to return and change your choices.

     Serial                      Resource      Other System
     Number      Type  Model     Name          Serial Number
     _____   ____  ___  _____       _____
     _____   ____  ___  _____       _____
     _____   ____  ___  _____       _____
     _____   ____  ___  _____       _____
     _____   ____  ___  _____       _____
     _____   ____  ___  _____       _____
                                                           More..

  F3=Exit           F12=Cancel
  _____
```

Be certain that you want to configure the disk before you continue.
Follow the instructions on the display. Press Enter to return to the
Problem Report screen. Press F10 to continue the Add Disk Unit
subtask.

d. The following display shows the percentage of disk units added. This
display does not require a response.

```
                        Function Status

  You selected to add units.                      _____




                              ___ % Complete

          _____  _____
```

e. When the process completes, continue the software installation process
with step 12. **This completes the subtask for adding disk units.**

__ 12. Status displays are shown on the console. You do not need to respond to
any of these status displays. The following is an example of a status
display:

```
                      IPL Step in Progress

  IPL step . . . . . . :    Storage Management Recovery
```
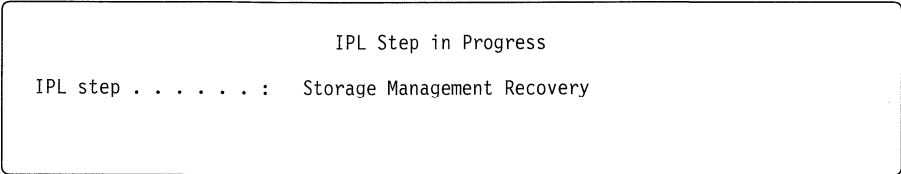
The following list shows some of the IPL steps that are shown on the IPL Step in Progress display:

Authority Recovery
Journal Recovery
Database Recovery
Journal Synchronization
Start the Operating System

Some of the IPL steps could take a long time.

___ 13. The Install the Operating System display is shown.

```
                    Install the Operating System

Type options, press Enter.

   Install
      option . . . . . . 1          1=Take defaults (No other
                                      options are displayed)
                                    2=Change install options        .

Date:
   Year . . . . . .  __             00-99
   Month  . . . . .  __             01-12
   Day  . . . . . .  __             01-31

Time:
   Hour . . . . . .  __             00-23
   Minute . . . . .  __             00-59
   Second . . . . .  __             00-59
```

Type the following:

Install option 1
Date (Use the current year, month, and day.)
Time (Use the current time, 24-hour clock.)

Press the Enter key.

___ 14. Status messages are shown during the installation process. You do not need to respond to any of these status displays. The following is an example of a status display:

```
Message ID. . . :   CPI2070                    OS/400 Installation Status

             +---------------------------------------------------+
Stage 2      |XXXXXXX                                            |
             +---------------------------------------------------+
             0       20        40        60        80        100

Installation                                                  Objects
Stage                                            Completed    Restored

    1 Creating needed profiles and libraries . . . . :    X

>> 2 Restoring programs to library QSYS . . . . . . :                XXXX

    3 Restoring language objects to library QSYS . . :

    4 Updating program table . . . . . . . . . . . . :

    5 Installing database files. . . . . . . . . . . :

    6 Completing AS/400 installation . . . . . . . . :
```

__ 15. Messages similar to the following could be displayed:

```
                            Display Messages
                                      System. . . . . :   XXXX
Queue  . . . . . :   QSYSOPR          Program . . . . :   *DSPMSG
   Library  . . . :     QSYS             Library . . . :
Severity . . . . :   10               Delivery  . . . :   *BREAK

Press Enter to continue.
  System operator message queue QSYSOPR created again.
  Console values lost.
```

Press the Enter key.

__ 16. A message similar to the following is shown at the bottom of a blank display for a long time.

CPI2085 - Installing data base files in library QSYS.

__ 17. The Sign On display is shown.

```
                        Sign On
                                  System. . . . :   XXX
                                  Subsystem . . :   XXXXX
                                  Display . . . :   XXXXXXXX

        User. . . . . . . . . . . . . . . QSECOFR

        Program/procedure . . . . . . . _____
        Menu. . . . . . . . . . . . . . _____
        Current library . . . . . . . . _____
```

Type QSECOFR for the *User* prompt.

Press the Enter key.

__ 18. Several blank displays and Display Messages displays could be shown. To continue, press the Enter key for each message display.

The following display is an example of a message that could be shown:

```
                            Display Messages
                                          System:   XXXX
  Queue  . . . . . :   QSYSOPR            Program . . . . :   *DSPMSG
    Library . . . :     QSYS                Library . . . :
  Severity . . . . :   60                 Delivery  . . . :   *BREAK

  Press Enter to continue.
    System object QWCSCPF created again during IPL.
```

__ 19. The IPL Options display is shown.

```
                            IPL Options

  Type choices, press Enter.

  System date . . . . . . . . . . . . . . .  XX / XX / XX     MM / DD / YY
  System time . . . . . . . . . . . . . . .  XX : XX : XX     HH : MM : SS
  Clear job queues. . . . . . . . . . . . .  N                Y=Yes, N=No
  Clear output queues . . . . . . . . . . .  N                Y=Yes, N=No
  Clear incomplete job logs . . . . . . . .  N                Y=Yes, N=No
  Start print writers . . . . . . . . . . .  Y                Y=Yes, N=No
  Start system to restricted state  . . . .  Y                Y=Yes, N=No


  Set major system options. . . . . . . . .  Y                Y=Yes, N=No
  Define or change the system at IPL. . . .  N                Y=Yes, N=No




  Last power-down operation was ABNORMAL
```

Notes:

   a. Ignore the message on the bottom of the IPL Options display.

   b. If you need to change system values, such as the value for the
      QSECURITY system value, you can do so now. Type Y for the *Define
      or change the system at IPL* prompt. If you do, also use the control
      panel to set the mode selection to the mode on which you want the
      system to run. Follow the instructions on the displays.

Type the following:

System date (Use the current date.)
System time (Use the current time, 24-hour clock.)
Start system to restricted state Y
Set major system options Y

Press the Enter key.

__ 20. Additional display messages could be shown.

Press the Enter key after each message to continue.

__ 21. The Set Major System Options display is shown.

```
Type choices, press Enter.

Enable automatic configuration . . . . . . Y              Y=Yes, N=No
Device configuration naming  . . . . . . . *NORMAL        *NORMAL, *S36,
*DEVADR
Default special environment. . . . . . . . *NONE          *NONE, *S36
```

Respond to the prompts on the Set Major System Options display.

- Enable automatic configuration

   The value Y (Yes) automatically configures local devices. N (No) indicates no automatic configuration. Complete information about automatic configuration can be found in the *Local Device Configuration*, SC41-5121 , book.

- Device configuration naming

   Specify *NORMAL to use a naming convention unique to the AS/400 system. The value *S36 uses a naming convention similar to System/36. Complete information about device configuration naming, including *DEVADR, can be found in the *Local Device Configuration*, SC41-5121, book.

- Default special environment

   The default value *NONE indicates no special environment. *S36 sets up the System/36 environment. Refer to the *System/36 Environment Programming*, SC41-4730, book for more information about working in the System/36 environment on the AS/400 system.

   Press the Enter key.

___ 22. The Edit Rebuild of Access Paths display could be shown. If it is, press the Enter key to continue.

___ 23. Several blank displays and Display Messages displays are shown. To continue, press the Enter key for each message display. Do not respond to blank displays.

   The following display is an example of a message that could be shown:

```
                              Display Messages
                                               System:    XXXX
Queue  . . . . . :   QSYSOPR            Program . . . . :    *DSPMSG
  Library  . . . :     QSYS               Library . . . :
Severity . . . . :   10                 Delivery  . . . :    *BREAK

Press Enter to continue.
Library QHLPSYS in SYSVAL QSYSLIBL not found.
```

___ 24. When the AS/400 Main Menu is shown on your console, you have completed this task. Continue with Task 2. Installing the Licensed Programs.

Task 2. Installing the Licensed Programs

__ 1. Begin at the AS/400 Main Menu.

Leave the current volume in the installation device.

Do the following to put the system in a restricted state and filter the messages that are displayed:

    a. Type the following command:

       CHGMSGQ QSYSOPR *BREAK SEV(60)

       Press the Enter key.

    b. A message display could be shown.

       Press the Enter key.

       Note: Ignore the messages that are shown.

    c. Type the following command:

       ENDSBS *ALL *IMMED

       Press the Enter key.

    d. The message System ended to restricted condition is shown. Press the Enter key to continue.

    e. Type the following command:

       CHGMSGQ QSYSOPR *BREAK SEV(95)

       Press the Enter key.

    f. A message display could be shown.

       Press the Enter key.

       Note: Ignore the messages that are shown.

__ 2. Load the media volume containing the optionally installable parts of OS/400. For CD-ROM media, this volume is labeled B29xx_02, where 29xx indicates the primary language.

__ 3. The AS/400 Main Menu is displayed.

Type the following command:

GO LICPGM

Press the Enter key.

__ 4. The Work with Licensed Programs display is shown.

```
LICPGM                    Work with Licensed Programs
                                                        System:   XXXX
Select one of the following:

  Manual Install
     1. Install all


```

Type a 1

Press the Enter key.

___ 5. The Manual Install display is shown.

```
                          Manual Install
                                            System:    XXXX
  Type choices, press Enter.

     Install option . . .   2            1=Installed products
                                         2=All products
                                         3=New products
                                         4=Installed and
                                            additionally selected products

     Installation device   OPT01         Name

     Replace if current     N            Y=Yes
                                         N=No

     Automatic IPL  . . .   N            Y=Yes
                                         N=No
```

Type the following:

Install option 2
Installation device OPT01 (See note)
Replace if current N
Automatic IPL N

Press the Enter key.

Notes:

a. Install option 4 (Installed and additionally selected products) only appears if you used the Prepare for Install option on the LICPGM menu and created a customized installation list.

b. OPT01 is used for the installation device in this example. If you are using a different naming convention, type the name you have assigned to the installation device.

___ 6. One or both of the following displays show the status of the licensed programs and language objects as they are being installed on the system. You do not need to respond to these status displays.

```
                       Installing Licensed Programs
                                            System: XXXX


  Licensed programs processed . . . . . . . . . . :      0 of XXX
               Licensed program install in progress
```

The following display is an example of the display that is shown during the installation process.

```
                    Installing Licensed Programs
                                                    System: XXXX
      Licensed programs processed  . . . . . . . . . . :       X

      Licensed
      Program   Option   Description                         Type
      5769SS1     2      OS/400 - Online Information          2924
```

Note: This display shows which licensed programs and optional parts of licensed programs are being installed. After the *PGM objects and *LNG objects for each licensed program or optional part have been installed, the licensed program identifier disappears from the display and the number in the licensed programs installed field changes to show how many are installed.

__ 7. If a message similar to the following appears, load the next media volume that contains licensed program products and continue the installation. When you are installing from CD-ROM media, wait for the In Use indicator to go out before you respond to the message.

```
                         Display Messages
                                           System:    XXXX
     Queue  . . . . . :   QSYSOPR         Program . . . . :   *DSPMSG
       Library  . . . :     QSYS            Library . . . :
     Severity . . . . :   95              Delivery  . . . :   *BREAK

     Type reply (if required), press Enter.
       Load the next volume in CD-ROM device OPT01 (X G)
         Reply . . . . G
```

Type a G

Note: G (go) continues processing. X indicates that there are no more volumes to load that contain licensed programs.

Press the Enter key.

__ 8. The message shown in the previous step could appear several times when you use CD-ROM media. Take the appropriate action, as follows:

- When you have more media volumes that contain licensed programs to load, type a G and press the Enter key.

- When you do not have any more volumes that contain licensed programs, type an X and press the Enter key.

__ 9. The Work with Licensed Programs display is shown on your console when the installation process is complete. One of the following messages is shown on the bottom of the Work with Licensed Programs display:

Work with licensed programs function has completed. Press F3 (Exit) to return to the AS/400 Main Menu.

Work with licensed programs function **not** complete. Go to Appendix A, Recovery Procedures to determine the problem.

More...   You have completed this task. Do you need to install additional licensed programs?

No   **Yes**

↓   Go to Chapter 9, " Installing Additional Licensed Programs" on page 9-1 and complete the instructions there.

Do you need to install a secondary language?

No   **Yes**

↓   Go to Chapter 10, " Installing a Secondary Language" on page 10-1 and complete the instructions there.

You need to complete the installation process. Go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and complete the instructions there.

Chapter 8. Changing Your Primary Language Using Secondary Language Media

This chapter contains the instructions to change the primary language of your system using secondary language media.

Before You Begin

Complete the planning tasks in Chapter 3, "Preparing to Install Software" on page 3-1.

Before you begin to change the primary language, be sure you have read the information in "Planning for National Language Support" on page 3-23. For more specific information about national language considerations, refer to the book *National Language Support*, SC41-5101 .

Before you use this chapter, consider the following:

- You need the media that contains the Operating System/400 (5769-SS1). The media label includes the characters B29xx_01, where 29xx is the language feature code for the primary language.

- You also need the media that contains the secondary language you want to install. The media label includes the characters N29xx and the name of the language. The character N indicates that the media contains only language objects and 29xx is the language feature code of the secondary language.

  Note: If the label on the media you intend to use as the secondary language media does not match this description, <u>do not</u> continue with the instructions in this part. If the letter B precedes the language feature code, go to Chapter 7, Installing a New AS/400 System without the Operating System Installed and use those instructions to change your primary language.

- The release and modification level of your system must be the same as the release and modification level of your secondary language media.

  Attention: You <u>cannot</u> change your primary language to a language you currently have installed as a secondary language on your system. You <u>must</u> delete the secondary language first before you can change it to your primary language. Go to "Using Option 22. Delete Secondary Languages" on page B-7 for more information about deleting secondary languages.

Task 1. Changing the Primary Language

___ 1. Begin at the AS/400 Main Menu (or the menu you chose as your initial menu).

Load the first volume of the media containing the operating system (5769-SS1). For CD-ROM media, this volume is labeled B29xx_01, where 29xx indicates the *primary* language of the system.

Note: Do <u>not</u> load your secondary language media at this time.

___ 2. Use the control panel to set the mode selector to **Manual**.

___ 3. Type the following command:

PWRDWNSYS *IMMED RESTART(*YES)

Press the Enter key.

___ 4. Wait for the IPL or Install the System display to be shown on your console.

```
                      IPL or Install the System

 Select one of the following:

       1. Perform an IPL
       2. Install the operating system
       3. Use Dedicated Service Tools (DST)
       4. Perform automatic installation of the operating system
       5. Save Licensed Internal Code
```

Type a 2

Press the Enter key.

___ 5. The Confirm Install of Operating System display is shown on your console.

Press the Enter key.

___ 6. The Select a Language Group display shows the primary language currently installed on the system. Change the primary language of your system by specifying the language feature code of the secondary language media on this display.

For example, say the primary language is English (2924) and you are using secondary language media to change it to Portuguese (2922). This display would appear showing 2924. You would type 2922.

```
                    Select a Language Group

 Note:  The language feature shown is the language feature
 installed on the system.

 Type choice, press Enter.

   Language feature . . . . . . . . . . . . . . .  2924
```

Type the numbers of the feature code for the language you want.

Press the Enter key.

___ 7. After the language feature code is entered, the Confirm Language Feature Selection display is shown on your console.

Press the Enter key.

___ 8. Some status displays are shown on the console. You do not need to respond to any of these status displays. The following is an example of a status display:

```
                          IPL Step in Progress
IPL step . . . . . . :    Storage Management Recovery
```

The following list shows some of the IPL steps that are shown on the IPL Step in Progress display:

Authority Recovery
Journal Recovery
Database Recovery
Journal Synchronization
Start the Operating System

Some of the IPL steps could take a long time.

__ 9. The Install the Operating System display is shown when the IPL is complete.

```
                    Install the Operating System

Type options, press Enter.

    Install
      option . . . . .  2          1=Take defaults (No other
                                     options are displayed)
                                   2=Change install options

    Date:
      Year . . . . . .  __         00-99
      Month  . . . . .  __         01-12
      Day  . . . . . .  __         01-31

    Time:
      Hour . . . . . .  __         00-23
      Minute . . . . .  __         00-59
      Second . . . . .  __         00-59
```

Type the following:

Install option 2
Date   (Use the current year, month, and day.)
Time   (Use the current time, 24-hour clock.)

Press the Enter key. The Installation Status screen appears. You do not need to respond to this screen.

__ 10. The Specify Install Options display is shown.

```
                       Specify Install Options

   Type options, press Enter.

      Restore option . . . . . 4          1=Restore programs and language
                                            objects from current media set
                                          2=Do not restore programs or
                                            language objects
                                          3=Restore only language objects
                                            from current media set
                                          4=Restore only language objects
                                            from a different media set using the
                                            current install device.


      Job and output
        queues option . . . . 2           1=Clear, 2=Keep
```

Type the following:

Restore option 4
Job and output queues option 2

Press the Enter key. The Installation Status screen appears. You do not
need to respond to this screen.

__ 11. Load the volume that contains secondary language media when the fol-
lowing message is shown:

```
                              Message

   Message ID  . . . . . . :   CPA2057      Type . . . . . . :    Inquiry
   From program  . . . . . :   XXXXXXX      Severity . . . . :    99

   Language ID . . . . . . :   2922

   Message . . . . . . :    The installation media containing language objects
     for the system language is needed to continue the installation process.

   Recovery  . . . . . :    Load the installation media containing language
     objects for the specified language.




   Type choice, press Enter.

      Reply . . . . .   1             1=Continue, 2=End installing
```

Type a 1

Press the Enter key.

The system searches through the media and loads the necessary language
information. The Installation Status screen appears, indicating that the lan-
guage is being changed (stage 3). The installation continues through the
remaining stages. This screen does not require a response.

__ 12. After the base part of the operating system has been changed, the Sign On
display is shown on your console. Continue with Task 2. Installing the
Licensed Programs.

Task 2. Installing the Licensed Programs

__ 1. Begin at the Sign On display.

```
                              Sign On
                                          System. . . . :   XXX
                                          Subsystem . . :   XXXXX
                                          Display . . . :   XXXXXXXX

          User. . . . . . . . . . . . . QSECOFR

          Program/procedure . . . . . . . _____
          Menu. . . . . . . . . . . . . : _____
          Current library . . . . . . . . _____
```

Type QSECOFR for the *User* prompt.

Press the Enter key.

__ 2. Several display messages are shown. To continue, press the Enter key on
each display. The following is an example of a message that could be
shown:

```
                          Display Messages
                                          System:    XXXX

      Queue  . . . . . :   QSYSOPR        Program . . . . :    *DSPMSG
        Library  . . . :     QSYS            Library . . . :
      Severity . . . . :   10             Delivery  . . . :    *BREAK

      Press enter to continue.
        System object QWCSCPF created again during IPL.
```

__ 3. The IPL Options display is shown.

```
                            IPL Options

      Type choices, press Enter.

          System date . . . . . . . . . . . . . . . XX / XX / XX    MM / DD / YY
          System time . . . . . . . . . . . . . . . XX : XX : XX    HH : MM : SS
          Clear job queues. . . . . . . . . . . . . N              Y=Yes, N=No
          Clear output queues . . . . . . . . . . . N              Y=Yes, N=No
          Clear incomplete job logs . . . . . . . . N              Y=Yes, N=No
          Start print writers . . . . . . . . . . . Y              Y=Yes, N=No
          Start system to restricted state. . . . . N

          Set major system options. . . . . . . . . N              Y=Yes, N=No
          Define or change the system at IPL. . . . N              Y=Yes, N=No




      Last power-down operation was ABNORMAL
```

Note: Ignore the message on the bottom of the IPL Options display.

Type the following:

System date (Use the current date.)
System time (Use the current time, 24-hour clock.)
Set major system options N

Press the Enter key.

___ 4. Additional display messages could be shown.

Press the Enter key after each message to continue.

___ 5. The AS/400 Main Menu (or the menu you chose as the initial menu) is shown on your console.

Do the following to put the system in a restricted state and filter the messages that are displayed:

a. Type the following command:

CHGMSGQ QSYSOPR *BREAK SEV(60)

Press the Enter key.

b. A message display could be shown.

Press the Enter key.

Note: Ignore the messages that are shown.

c. Type the following command:

ENDSBS *ALL *IMMED

Press the Enter key.

d. The message System ended to restricted condition is shown. Press the Enter key to continue.

e. Type the following command:

CHGMSGQ QSYSOPR *BREAK SEV(95)

Press the Enter key.

f. A message display could be shown.

Press the Enter key.

Note: Ignore the messages that are shown.

___ 6. The AS/400 Main Menu (or the menu you chose as your initial menu) is shown again.

Type the following command:

GO LICPGM

Press the Enter key.

___ 7. The Work with Licensed Programs display is shown.

```
LICPGM                      Work with Licensed Programs
                                                        System:   XXXX
Select one of the following:

 Manual Install
    1. Install all
```

Type a 1

Press the Enter key.

Note: Select option 1 (Install all) to change the primary language

___ 8. The Manual Install display is shown.

```
                              Manual Install
                                                     System:   XXXX
      Type choices, press Enter.

         Install option . . .   1          1=Installed products
                                           2=All products
                                           3=New products
                                           4=Installed and
                                             additionally selected products

         Installation device    OPT01      Name

         Replace if current      N          Y=Yes
                                            N=No

         Automatic IPL  . . .    N          Y=Yes
                                            N=No
```

Type the following:

Install option 4 (See note)
Installation device OPT01 (See note)
Replace if current N
Automatic IPL N

Press the Enter key.

Notes:

a. If you created a customized installation list, select install option 4
   (Installed and additionally selected products). This option only appears
   if you used the LICPGM menu option to Prepare for Install, described in
   "Creating and Customizing an Installation List" on page 3-15.

   Otherwise, select install option 1 (Installed products).

b. OPT01 is used for the installation device in this example. If you are
   using a different naming convention, type the name you have assigned
   to the installation device.

___ 9. One or both of the following displays show the status of the licensed pro-
   grams and language objects as they are being installed on the system. You
   do not need to respond to these status displays.

```
                          Installing Licensed Programs
                                                     System: XXXX

      Licensed programs processed . . . . . . . . . . :     0 of XXX

                          Licensed program install in progress
```

The following display is an example of the display that is shown during the
installation process.

```
                   Installing Licensed Programs

                                                 System: XXXX
Licensed programs processed . . . . . . . . . . :     X

Licensed
Program    Option   Description                           Type
5769SS1             OS/400 - Library QUSRSYS              2922
```

__ 10. If you see the following message, load the next volume of the secondary language media and continue the installation.

Note: Be certain that the label on the next volume is for the same secondary language.

```
                        Display Messages
                                               System:   XXXX
Queue . . . . . :  QSYSOPR            Program . . . . :   *DSPMSG
  Library . . . :    QSYS              Library . . . :
Severity . . . . :  95                Delivery . . . :   *BREAK

Type reply (if required), press Enter.
  Load the next volume in CD-ROM device OPT01 (X G)
     Reply . . . . G
```

Type a G

Note: G (go) continues processing. X indicates that there are no more volumes to load that contain licensed programs.

Press the Enter key.

__ 11. The Work with Licensed Programs display is shown on your console when the language objects for all of the licensed programs are installed. One of the following messages is shown on the bottom of the Work with Licensed Programs display:

`Work with licensed programs function has completed.` Press F3 (Exit) to return to the AS/400 Main Menu.

`Work with licensed programs function` **not** `complete.` Go to Appendix A, Recovery Procedures to determine the problem.

More...	**You have completed this task. To complete your installation, you must go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and follow the instructions there.**

Chapter 9. Installing Additional Licensed Programs

This chapter contains instructions to install additional licensed programs or optional parts of licensed programs on your system. (Separately ordered features are installed as a licensed program.)

Before You Begin

Complete the planning tasks in Chapter 3, "Preparing to Install Software" on page 3-1.

You can use this chapter to add additional licensed programs either as part of software release upgrade or independently of one.

If you install an additional licensed program independently of a software release upgrade, check the following:

- Ensure that you have a recent copy of the cumulative PTF package. You should also get the latest high-impact pervasive (HIPER) PTFs.

- Use the Preventive Service Planning (PSP) information to determine if any prerequisite PTFs need to be installed or if any special instructions are included for installing the licensed program.

The PTFs for licensed programs are on a separate media. Use the *AS/400 PTF Shipping Information Letter* to install the cumulative PTF package after adding additional licensed programs.

If you add additional licensed programs and you have a secondary language installed on your system, you must install the secondary language after you install the licensed programs. Otherwise, the added licensed program will not have secondary language support.

Note: Restricted State Required: The system <u>must</u> be in a restricted state to install the following libraries and options of OS/400. Additionally, the following licensed programs require a partially restricted system:

- OS/400 libraries QGPL and QUSRSYS

- OS/400 option 12 - Host Servers

- SystemView Managed System Services for AS/400

- System Manager for AS/400

Other licensed programs may require special actions before saving, restoring, or installing a new copy of the product. For example, MQSeries for AS/400 requires its own specific procedure to quiesce the product.

For other licensed programs, it is recommended that the system be in a restricted state. If you want to install other licensed programs while the system is not in a restricted state, you can skip steps 3A through 3D of Task 1. You may experience installation failures if the system is not in a restricted state. Your installation time may be slower if you install licensed programs while the system is not in a restricted state.

If you are selecting more than one licensed program and want to ensure that the products you select install as fast as possible, you should review the information in "Multiprocess Installation-Overview" on page D-4. Table D-3 on page D-11 shows which licensed programs may have conditions that affect the installation time.

Task 1. Using the Work with Licensed Programs Menu

__ 1. You must be signed on the system using QSECOFR. If you are not, sign off and then sign on again using QSECOFR.

  Note: The AS/400 Main Menu (or the menu you chose as your initial menu) is shown on the console.

__ 2. Insert a volume in the installation device. If you are installing from CD-ROM, wait until the CD-ROM In Use indicator goes out before you continue.

  • To install the no-charge optional parts of OS/400 or no-charge licensed programs, load OS/400 media volume B29xx_02 (29xx indicates the national language feature code for the primary language of your system).

  • To install priced features of OS/400 or licensed program products, load the volume labeled F29xx_01.

__ 3. The AS/400 Main Menu (or the menu you chose as your initial menu) is shown.

  Do the following to put the system in a restricted state and filter the messages that are displayed:

  a. Type the following command:

  `CHGMSGQ QSYSOPR *BREAK SEV(60)`

  Press the Enter key.

  b. A message display could be shown.

  Press the Enter key.

  Note: Ignore the messages that are shown.

  c. Type the following command:

  `ENDSBS *ALL *IMMED`

  Press the Enter key.

  d. The message System ended to restricted condition is shown. Press the Enter key to continue.

  e. Type the following command:

  `CHGMSGQ QSYSOPR *BREAK SEV(95)`

  Press the Enter key.

  f. A message display could be shown.

  Press the Enter key.

  Note: Ignore the messages that are shown.

__ 4. The AS/400 Main Menu (or the menu you chose as your initial menu) is displayed again.

Type the following command:

`GO LICPGM`

Press the Enter key.

___ 5. The Work with Licensed Programs display is shown.

```
 LICPGM                    Work with Licensed Programs
                                                         System:   XXXX
 Select one of the following:

   Manual Install
      1. Install all

   Preparation
      5. Prepare for install

   Licensed Programs
     10. Display installed licensed programs
     11. Install licensed programs
     12. Delete licensed programs
     13. Save licensed programs
```

Type a 11

Press the Enter key.

___ 6. The Install Licensed Programs display is shown.

```
                         Install Licensed Programs
 System:   SYSTEMA
  Type options, press Enter.
    1=Install

             Licensed  Installed
 Option      Program   Status        Description
     _       5769SS1   *COMPATIBLE   OS/400 - Library QGPL
     _       5769SS1   *COMPATIBLE   OS/400 - Library QUSRSYS
     _       5769SS1   *COMPATIBLE   OS/400 - Extended Base Support
     _       5769SS1                 OS/400 - Online Information
             5769SS1                 OS/400 - Extended Base Directory Support
     _       5769SS1                 OS/400 - S/36 and S/38 Migration
     _       5769SS1                 OS/400 - System/36 Environment
     _       5769SS1                 OS/400 - System/38 Environment
     _       5769SS1                 OS/400 - Example Tools Library
     _       5769SS1                 OS/400 - AFP Compatibility Fonts
     _       5769SS1                 OS/400 - *PRV CL Compiler Support
     _       5769SS1                 OS/400 - S/36 Migration Assistant
     1       5769SS1                 OS/400 - Host Servers
                                                               More...
  F3=Exit   F11=Display release   F12=Cancel
```

Notes:

a. The libraries QGPL and QUSRSYS and Extended Base Support (option 1 of OS/400) are preselected if you are installing licensed programs as part of a new system installation. If you are adding additional (new) licensed programs or optional parts, these items are already installed and would be preselected only if they are in an error state. This example shows that libraries QGPL and QUSRSYS and Extended Base Support (option 1 of OS/400) are installed at a level that is compatible with OS/400.

b. A licensed program you want to install may not be listed on the Install Licensed Programs display. If the licensed program you want is not listed, look at the information you received with the licensed program for installation instructions.

Type a 1 in the option column next to the licensed programs to be installed.

Press the Enter key.

__ 7. The Confirm Install of Licensed Programs display is shown on the console.

Press the Enter key to confirm your choices.

__ 8. The Install Options display is shown.

```
                                Install Options
                                              System:   XXXX
         Type choices, press Enter.

           Installation device  . . .   OPT01        Name

           Objects to install . . . .   1            1=Programs and language objects
                                                      2=Programs
                                                      3=Language objects

           Automatic IPL  . . . . . .   N            Y=Yes
                                                      N=No
```

Type the following:

Installation device OPT01 (See note)
Objects to install 1
Automatic IPL N

Press the Enter key.

Note: OPT01 is used for the installation device in this example. If you are using a different naming convention, type the name you have assigned to the installation device.

__ 9. One or both of the following displays show the status of the licensed pro-grams and language objects as they are being installed on the system. You do not need to respond to these status displays.

```
                          Installing Licensed Programs
                                                  System: XXXX


         Licensed programs processed . . . . . . . . . . :      0 of XXX

                          Licensed program install in progress
```

The following display is an example of the display that is shown during the installation process.

```
                          Installing Licensed Programs or PTFs
                                                  System: XXXX
         Licensed programs processed  . . . . . . . . . . . . . . :      X
         Licensed
         Program  Option  Description                          Type
         5769SS1    12     OS/400 - Host Servers                2924
```

Note: This display shows which licensed programs and optional parts of licensed programs are being installed. After the *PGM objects and *LNG objects for each licensed program or optional part have been installed, the licensed program identifier disappears from the display and the number in the licensed programs installed field changes to show how many are installed.

__ 10. If the licensed programs and options you selected are on more than one media volume you will see the following message. (You will not see the message if all the products selected are on the same volume.) Load the next media volume that contains licensed program products. If you are installing from CD-ROM media, wait for the In Use indicator to go out before responding to the message.

```
                            Display Messages
                                            System:    XXXX
    Queue . . . . . :    QSYSOPR            Program . . . . :   *DSPMSG
      Library  . . . :    QSYS               Library . . . :
    Severity . . . . :   95                 Delivery  . . . :   *BREAK

    Type reply (if required), press Enter.
      Load the next volume in CD-ROM device OPT01 (X G)
        Reply . . . . G
```

Type a G

Note: G (go) continues processing. X indicates that there are no more volumes to load that contain licensed programs.

Press the Enter key.

__ 11. The Work with Licensed Programs display is shown on your console when the installation process is complete. One of the following messages is shown on the bottom of the Work with Licensed Programs display:

Work with licensed programs function has completed. Press F3 (Exit) to return to the AS/400 Main Menu.

Work with licensed programs function **not** complete. Go to Appendix A, Recovery Procedures to determine the problem.

> **More...** You have completed this task. Do you have more licensed pro-
> grams or optional parts to install, but they did not appear in the
> list displayed in step 9 on page 9-4?
>
> **No** **Yes**
>
> ↓ Go to "Task 2. Using the Restore Licensed
> Program Command" on page 9-6 to install these
> licensed programs or optional parts.
>
> Do you need to install a secondary language?
>
> **No** **Yes**
>
> ↓ Go to Chapter 10, " Installing a Secondary
> Language" on page 10-1 and complete the
> instructions there.
>
> You need to complete the installation process. Go to
> Chapter 11, "Checklist for Completing the Installation" on
> page 11-1 and complete the instructions there.

Task 2. Using the Restore Licensed Program Command

You may have licensed programs or optional parts to install that were not in the list
used in the previous task. New licensed programs or new optional parts of licensed
programs that become available independently of an operating system release or
modification level are not installed with option 11. (These products are not listed in
Appendix C, "Licensed Program Information" on page C-1, either.) You must use
the Restore Licensed Program (RSTLICPGM) command to install these licensed
programs.

Note: If you do not have any licensed programs or optional parts that fit this
description, you can skip this task. If you need to install a secondary lan-
guage, go to Chapter 10, " Installing a Secondary Language" on page 10-1
and complete the instructions there. Otherwise, you need to complete the
installation process. Go to Chapter 11, "Checklist for Completing the
Installation" on page 11-1 and complete the instructions there.

__ 1. You may have received special installation instructions with these products.
If you did, you should use those instructions.

__ 2. Load the media containing the licensed program or optional part on the
installation device.

In the following steps, OPT01 is used for the installation device. If you are
using a different naming convention, use the name you have assigned to
the installation device.

__ 3. To install a new licensed program, type the command:

```
RSTLICPGM LICPGM(xxxxxxx) DEV(OPT01) OPTION(*BASE)
```

where *xxxxxxx* is the product identifier for the licensed program you are
installing.

Press the Enter key.

__ 4. To install a new optional part, type the command:

```
RSTLICPGM LICPGM(xxxxxxx) DEV(OPT01) OPTION(n)
```

where *xxxxxxx* is the product identifier for the licensed program you are
installing and *n* is the option number.

Press the Enter key.

___ 5. Repeat steps 3 and 4 until you have installed all of the new licensed programs and optional parts that could not be installed in Task 1.

More...	You have completed this task. Do you need to install a secondary language?
	No **Yes**
	↓ Go to Chapter 10, " Installing a Secondary Language" on page 10-1 and complete the instructions there.
	You need to complete the installation process. Go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and complete the instructions there.

Chapter 10.   Installing a Secondary Language

This part contains instructions for installing a secondary language on your system.

Before You Begin

Complete the planning tasks in Chapter 3, "Preparing to Install Software" on page 3-1. Be sure to read the secondary language considerations in "Planning for National Language Support" on page 3-23.

IMPORTANT: Before you install a secondary language on your system, go to the *National Language Support*, SC41-5101, book for more information about installing and using secondary languages.

If you are installing a double-byte character set (DBCS) secondary language, you must have a DBCS primary language installed on your system. You can install a single-byte character set (SBCS) secondary language on a system with a DBCS primary language.

Task 1.   Using the Work with Licensed Programs Menu

___ 1. You must sign on to the system as QSECOFR. If you are not, sign off and then sign on again using QSECOFR.

___ 2. Note the national language version identifier on the secondary language media. You will need this in step 8 on page 10-2. _____

Secondary language media is identified by the N29xx on the label. The identifier is in the form 29xx, where xx is a unique number for each language.   Refer to Appendix G, "National Language Version Feature Codes" on page G-1 to see a list of national language feature codes.

___ 3. Load the secondary language media volume on the installation device.

___ 4. Type the following command on any command line:

CHGMSGQ QSYSOPR *BREAK SEV(95)

Press the Enter key.

___ 5. A message display could appear.

Press the F3 (Exit) key.

Note: Ignore the messages that are shown.

___ 6. Type the following command on any command line:

GO LICPGM

Press the Enter key.

___ 7. The Work with Licensed Programs menu appears. Use the page down or rollup key to see the second display of the Work with Licensed Programs menu.

10-1

```
LICPGM                       Work with Licensed Programs
                                                          System: XXXX
    Select one of the following:

    Secondary Languages
       20. Display installed secondary languages
       21. Install secondary languages
       22. Delete secondary languages
```

Type a 21

Press the Enter key.

___ 8. The Install Secondary Languages display appears.

```
                       Install Secondary Languages
                                                   System:   XXXX
    Primary language . . . . . . :    2924
    Description  . . . . . . . . :    English

    Type options, press Enter.
      1=Install

                                                        Installed
    Option  Language  Description              Library   Release
      _       2902    Estonian                 QSYS2902
      _       2903    Lithuanian               QSYS2903
      _       2904    Latvian                  QSYS2904
      _       2905    Vietnamese               QSYS2905
      _       2906    Lao                      QSYS2906
      _       2909    Belgian English          QSYS2909
      1       2911    Slovenian                QSYS2911
      _       2912    Croatian                 QSYS2912
```

Type a 1 in the option column next to the language you want to install.

Press the Enter key.

___ 9. After the language feature is entered, the Confirm Install of Secondary Languages display is shown.

```
                   Confirm Install of Secondary Languages
                                                   System:   XXX
    Press Enter to confirm your choices for 1=Install.
    Press F12 to return to change your choices.

                                                        Installed
    Option  Language  Description              Library   Release
      1       2911    Slovenian                QSYS2911
```

Press the Enter key.

___ 10. The Install Option for Secondary Languages appears.

```
                   Install Option for Secondary Languages
                                                   System:   XXX
    Type choice, press Enter.

       Installation device  . . .    OPT01       Name
       Replace if Current . . . .    N           Y=Yes N=No
```

Type the following:

Installation device OPT01 (See note)
Replace if Current N

Press the Enter key.

Note: OPT01 is used for the installation device in this example. If you are using a different naming convention, type the name you have assigned to the installation device.

One or both of the following displays show the status of the language objects as they are installed on the system.

```
                     Installing Licensed Programs
                                               System: XXXX


Licensed programs processed . . . . . . . . . .  :     0 of XXX

                  Licensed program install in progress


```

The following display is an example of the display that is shown during the installation process.

```
                    Installing Licensed Programs
                                               System: XXXX
         Licensed programs processed  . . . . . . . . . .  :      X

Licensed
Program   Option   Description                            Type
5769CB1   *BASE    ILE COBOL for AS/400                    2911
```

___ 11. If you see the following message, load the next volume of the secondary language media and continue the installation.

Note: Be certain that the label on the next volume is for the same secondary language.

```
                            Display Messages
                                           System:   XXXX
Queue  . . . . . :   QSYSOPR            Program . . . . :   *DSPMSG
   Library  . . . :     QSYS              Library . . . :
Severity . . . . :   95                 Delivery  . . . :   *BREAK

Type reply (if required), press Enter.
  Load the next volume in CD-ROM device OPT01 (X G)
     Reply . . . . G
```

Type a G

Note: G (go) continues processing. X indicates that there are no more volumes to load that contain licensed programs.

Press the Enter key.

___ 12. The Work with Licensed Programs display is shown on your console when the installation process is complete. One of the following messages is shown on the bottom of the Work with Licensed Programs display:

`Work with licensed programs function has completed.` Press F3 (Exit) to return to the AS/400 Main Menu.

`Work with licensed programs function` **`not`** `complete.` Go to Appendix A, Recovery Procedures to determine the problem.

Note: Some licensed program options do not have language objects or are not supported for secondary languages. For example, options 6, 7, and 9 of the operating system are not supported. Option 8 of the operating system does not have any language objects.

More...	You have completed this task. Do you need to install secondary languages for licensed programs that are not in the list shown using option 10 of the Work with Licensed Programs menu?
	No **Yes**
	↓ Go to "Task 2. Using the Restore Licensed Program Command" to install secondary languages for these licensed programs.
	You have completed this task. To complete your installation, you must go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and follow the instructions there.

Task 2. Using the Restore Licensed Program Command

You may have secondary languages for an individual licensed program or optional part of a licensed program. This could occur when you add a licensed program independently of the operating system, or after the current secondary language was installed. Use the Restore Licensed Program (RSTLICPGM) command to install secondary languages for individual licensed programs.

Note: If you do not have any secondary languages that fit this description, you can skip this task. However, you need to complete the installation process. Go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and complete the instructions there.

___ 1. You may have received special installation instructions with independently shipped licensed programs (those that are not on the same media as the software release). If you did, you should use those instructions.

In the following steps, OPT01 is used for the installation device. If you are using a different naming convention, use the name you have assigned to the installation device.

___ 2. Load the media volume containing the secondary language that you want to install.

___ 3. To install a secondary language for a licensed program, type the command:

```
RSTLICPGM LICPGM(xxxxxxx) DEV(OPT01)
   OPTION(*BASE) RSTOBJ(*LNG) LNG(29xx)
```

where *xxxxxxx* is the product identifier for the licensed program and 29*xx* is the national language version feature code.

Press the Enter key.

__ 4. To install secondary language for an optional part of a licensed program, type the command:

```
RSTLICPGM LICPGM(xxxxxxx) DEV(OPT01)
  OPTION(n) RSTOBJ(*LNG) LNG(29xx)
```

where *xxxxxxx* is the product identifier for the licensed program, *n* is the option number, and 29*xx* is the national language version feature code.

Press the Enter key.

__ 5. Repeat steps 3 and 4 until you have installed all of the secondary languages for the licensed programs and optional parts that were independently installed.

More...	You have completed this task. To complete your installation, you must go to Chapter 11, "Checklist for Completing the Installation" on page 11-1 and follow the instructions there.

Chapter 11. Checklist for Completing the Installation

Use this chapter to complete any of the installation process chapters in this book.

___ 1. Remove the media volume when the installation is complete. If your media is tape, wait for the tape to rewind completely.

___ 2. If you have additional licensed programs to install, go to Chapter 9, Installing Additional Licensed Programs and install them now. Otherwise, continue with step 3.

___ 3. If you have any Programming Request for Price Quotations (PRPQs) to install, you should install them now. Use the instructions that came with the PRPQ. Then return here and continue with the next step.

___ 4. If you have an additional secondary language to install or replace, go to Chapter 10, Installing a Secondary Language to install or replace the secondary language. Otherwise, continue with step 5.

___ 5. Install the cumulative PTF package (the package that came with your distribution media or a more recent current cumulative PTF package). Use the instructions in the *AS/400 PTF Shipping Information Letter.* Then return here and continue with the next step.

> **Note:** If you do not install the cumulative PTF package now, you need to perform an IPL and let the Initialize System (INZSYS) process complete. Before you do, set the mode selection to **Normal** and set the IPL type to **B** (or the IPL type you use for everyday operation). Refer to "INZSYS Recovery Information" on page A-16 for more information.

___ 6. Look for messages in the install history log that indicate the status of the Initialize System (INZSYS) process. Use option 50 (Display log) on the Work with Licensed Programs display to look for messages.

> **Note:** On some systems, the INZSYS process could take 2 or more hours to complete; on most systems, it should complete within a few minutes.

    a. Type **GO LICPGM** and press the Enter key.

    b. Type **50** on the Work with Licensed Programs display and press the Enter key.

    c. The Display Install History display appears. Press the Enter key.

The Display History Log Contents display appears. If you do not see either of the following messages on the display, wait a few minutes and select option 50 again. Find the message **Initialize System (INZSYS) started**. After this message appears, wait for a period of time and look for the **Initialize System (INZSYS) processing completed successfully** message. If you do not see this message on the display, go to "INZSYS Recovery Information" on page A-16 to determine the problem.

___ 7. Use the Work with License Information (WRKLICINF) command to display all products that were purchased with a usage-based charge option. Update the usage limit to match the usage level that was ordered for each product. Contact your software provider if you are unsure of the usage level you purchased. Update the threshold to the desired level.

___ 8. You may also need to install the license authorization code for OS/400. If you purchased a pre-loaded system, the licensed information is already installed. If you are upgrading your system, the license information will arrive with the upgrade media. Contact your IBM Marketing representative if you have a problem with this code.

___ 9. Save your system by using your normal save procedures. (Refer to the instructions in the *Backup and Recovery*, SC41-5304, book.) Make sure that the Initialize System (INZSYS) process is complete before you save your system.

> **Note:** Before you start a save operation, use the Work with Active Jobs (WRKACTJOB) command to check the status of QDCPOBJx jobs. These jobs decompress objects. There could be more than one QDCPOBJx job. You can start your save operation if these jobs are in an inactive state. If you put the system in a restricted state by ending subsystems, the QDCPOBJx jobs become inactive. The jobs will restart when the system is not in a restricted state. See "Compressed Objects and Storage Space" on page 3-21 for more information about decompressing objects.

___ 10. If you plan to install any part of the softcopy library on workstations or on AS/400, refer to the *AS/400e series Softcopy Library CD-ROM*, SK3T-0118, book.

___ 11. If you installed Client Access products, you may have other tasks you need to complete on workstations.

Use the following references to locate the correct publication for installing a client on the workstation. If the Client Access version you are using is for:

- **Microsoft Windows 95/NT****, see: *Client Access for Windows 95/NT - Setup*, SC41-3512.

- **Microsoft Windows 3.1****, see: *Client Access for Windows 3.1 - Setup*, SC41-3534.

  > **Note:** The above manual replaces *Client Access for Windows 3.1–Getting Started,*. The above manual also includes the installation information that was distributed in the informal documentation that was shipped with the product (USLT156U).

- **DOS with Extended Memory**, see: *Client Access/400 for DOS with Extended Memory Setup*, SC41-3500.

- **DOS**, see: *Client Access/400 for DOS Setup*, SC41-3556 .

- **OS/2 1.3**, see: *Client Access/400 for OS/2 Setup*, SC41-3520.

- **Optimized for OS/2**, see: *Client Access Optimized for OS/2 - Setup*, SC41-3510 .

___ 12. You may have installed licensed programs that require additional installation steps on workstations or that have programs that install on workstations through a Client Access function. If you have products such as this, complete your workstation installation by using the instructions for the product.

___ 13. If you installed 5769-JV1, AS/400 Developer Kit for Java , you will need to run the verification program. Type `java com.ibm.as400.system.Hello` at the command line and press Enter.

Additional information about the AS/400 Developer Kit for Java licensed program is available on the World Wide Web (WWW) at the following uniform resource locators (URLs):

Located in the United States: `http://as400bks.rochester.ibm.com`
Located in Denmark: `http://www.software.ibm.com`

You have completed installing V4R2M0 on your system.

Addendum to Central Site Distribution

If you will be using the Central Site Distribution book as part of your overall installation plan, you will need to use the updated information found in this section. These chapters replace the information found in Chapter Four and Appendix A of *Central Site Distribution*. Make sure that you have the most recent copy of *Central Site Distribution*, SC41-5308. You will see references to release levels like V4R1M0. These references apply to V4R2M0 as well.

Central Site Distribution, SC41-5308also mentions system requirements before upgrading your system. Many of these changes only affect you if you are upgrading from V3R7 to V4R2. See "System Requirements for V4R2M0" on page 3-2 for more information.

Chapter 12. Replacement for Chapter 4 of Central Site Distribution

Working with Installation Profiles

The following topics contain information to help you work with an installation profile. Using an installation profile allows you to use the automatic installation method. The automatic installation method reduces the number of tasks an operator must perform during the installation at the target site system.

An installation profile contains your choices of the tasks you want to happen during the installation process. The choices you make when creating an installation profile are only used at the target site system. The choices do not affect the central site system.

The following operator tasks are eliminated when you use an installation profile:

- Select function to restore Licensed Internal Code
- Select option to install the operating system
- Confirm the installation of the operating system
- Select a language feature
- Confirm a language feature
- Select installation options
- Select IPL options
- Work with Licensed Programs menu

Advantages of Using an Installation Profile

Using an installation profile to install the media containing licensed programs and application programs has the following advantages:

- Reduces or eliminates tasks an operator at the target site system must do other than mounting distribution media
- Allows the central site planner to create customized installation profiles to control the installation at the target site system
- Provides the capability to restart after a failure, including bypassing parts of the installation that were successful
- Reduces or eliminates messages during the installation
- Allows the central site planner to install applications or further customize the system after a successful installation, by using a user-defined installation program

Work with Installation Profiles Display

The Work with Installation Profiles display appears when you select option 41 (Work with installation profiles) on the GO LICPGM menu. To get the GO LICPGM menu, type GO LICPGM on the command line and press the Enter key.

Notes:

1. For option 41 to appear on the GO LICPGM menu, you must have both *SAVSYS special authority and *USE (or higher) authority to the QLPAUTO file in the QUSRSYS library.

   If option 41 does not appear on the GO LICPGM menu, contact your system security officer.

2. To create, change, or delete installation profiles, you must have *CHANGE authority to the QLPAUTO file in the QUSRSYS library

The Work with Installation Profiles display allows you to do the following:

- Create a new installation profile.
- Change an existing installation profile.
- Delete an existing installation profile.
- Display an existing installation profile.

```
                      Work with Installation Profiles

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display


          Installation
Opt         Profile          Text

 _        QCHGPRILNG        Change primary language
 _        QIBMRPLRLS        IBM replace current release
 _        QINSNEWSYS        Install new AS/400
 _        QRPLRELLVL        Replace current release










  F3=Exit    F12=Cancel

```

Multiple tasks can be performed at the same time using the Work with Installation Profiles display. For example, you can create a new installation profile and delete an existing installation profile at the same time.

IBM corporation provides you with four installation profiles that can be changed to meet your requirements. You can use these three installation profiles or create your own profiles. The IBM-supplied installation profiles are:

- QCHGPRILNG: Change the primary language using the media containing the secondary language.

  If the QCHGPRILNG installation profile is used:

  - The target site system must already have the V4R1 level of the Licensed Internal Code, the OS/400 licensed program, and all of the appropriate target site system licensed programs installed.

  - A separate copy of the media containing the secondary language must be distributed to the target site system. Since secondary language media is distributed only on CD-ROM, premastering must be done and distribution made to the target site on CD-ROM.

  - Do not select any licensed program from the Save Licensed Programs display when creating your distribution media.

  - The QCHGPRILNG installation profile cannot be used to install additional licensed programs at the target site system using the automatic installation method.

- QINSNEWSYS: Install a new AS/400

  To use the QINSNEWSYS installation profile, the target system must already have the V4R1 level of the Licensed Internal Code installed.

- QRPLRELLVL: Replace the current release with a new release. The system replaces Licensed Programs that are at the same version, release, and modification as on the media.

- QIBMRPLRLS: Replace the current release with a new release. The system does not replace Licensed Programs that are at the same version, release, and modification as on the media.

Creating an Installation Profile

Select option 1 (Create) on the Work with Installation Profiles display to create an installation profile. Some or all of the displays listed below are shown depending on the options you select. Follow the instructions on these displays to complete the task. You can change the options or choose the defaults on these displays.

- Create Profile Details

- Create OS/400 Installing Options

- Create Restore Options

- Create Major System Options

- Create Licensed Program Options

If you need more information about the displays, see "Creating and Changing an Installation Profile" on page 12-4.

Changing an Installation Profile

Select option 2 (Change) on the Work with Installation Profiles display to change an installation profile. Some or all of the displays listed below are shown depending on the options you select. Follow the instructions on these displays to complete the task. You can change the options or choose the defaults on these displays.

- Change Profile Details
- Change OS/400 Installing Options
- Change Restore Options
- Change Major System Options
- Change Licensed Program Options

If you need more information about the displays, see "Creating and Changing an Installation Profile."

Creating and Changing an Installation Profile

The following information goes into further detail about creating or changing an installation profile. You may or may not need this information after using the preceding information in "Creating an Installation Profile" on page 12-3 or "Changing an Installation Profile" on page 12-3.

After you select option 1 (Create) or option 2 (Change) on the Work with Installation Profiles display, the following display appears (example only):

Note: The word *Create* appears as the first word in the display title if you select option 1 (Create). The word *Change* appears as the first word in the display title if you select option 2 (Change). That is the only difference between the displays when creating and changing an installation profile.

Change Profile Details Display

```
                             Change Profile Details

  Installation Profile . . . . . . . :    INSTALLX

  Type choices, press Enter.

     Type of install  . . .   1         1=Replace current release with new release
                                        2=Install new AS/400
                                        3=Change primary language using media
                                           containing secondary language

     Text . . . . . . . . .  Installs Release X_____






  F3=Exit    F12=Cancel
```

The Change Profile Details display contains the following information:

- Installation profile

  This field is an output-only field. The system automatically displays the installation profile name (INSTALLX in the example) you created or chose on the Work with Installation Profiles display.

- Type of install

This input field specifies the type of installation you want. The number of the installation option you choose is used to prompt you for the displays required to complete this task and to provide appropriate defaults for those prompts.

If option 1 (Replace current release with new release) is selected, a new release is installed on the system.

Take Note!

Do not select this option if you are performing a CISC to RISC upgrade. Instead see the *AS/400 Road Map for Changing to PowerPC Technology*, SA41-5150, for information about upgrading to PowerPC Technology.

When you select option 2 (Install new AS/400), the target system must already have the V4R1 level of the Licensed Internal Code installed.

If option 3 (Change primary language using media containing secondary language) is selected:

- The target site system must already have the V4R1 level of the Licensed Internal Code, the OS/400 licensed program, and all of the appropriate licensed programs for the target system installed.

- A separate copy of the media containing the secondary language must be distributed to the target site system.

- Do not select any licensed program from the Saved Licensed Programs display when creating your distribution media.

- Option 3 cannot be used to install additional licensed programs at the target site system using the automatic installation method.

- Text

  This is an input field. You can enter any descriptive information about the installation profile (up to 50 characters).

Change OS/400 Installing Options Display

If you select option 1 (Replace current release with new release) or option 2 (Install new AS/400) for the Type of install prompt on the Change Profile Details display, the version of the Change OS/400 Installing Options display shown is similar to the one below.

If you select option 3 (Change primary language using media containing secondary language) for the prompt, a different version of the Change OS/400 Installing Options display is shown. This version of the display is shown under "Change OS/400 Installing Options Display" on page 12-9.

```
                        Change OS/400 Installing Options

 Installation Profile . . . . . . . :   INSTALLX

 Type choices, press Enter.

   Restore option . . . . . .   1       1=Restore programs and language objects
                                          from distribution media
                                        2=Do not restore programs or language
                                          objects
                                        3=Restore only language objects from
                                          distribution media



   Clear job and output
     queues . . . . . . . . .   N       Y=Yes, N=No




 F3=Exit    F12=Cancel
```

The OS/400 Installing Options display contains the following information:

- Installation profile

  This field is an output-only field. The system automatically displays the installation profile name (INSTALLX in the example) you created or chose on the Work with Installation Profiles display.

- Restore option

  This input field specifies what objects will be restored during the installation of the OS/400 licensed program.

  - If you select option 1, the programs and language objects are restored from the distribution media.

  - If you select option 2, the current programs and language objects are left on the system.

  - If you select option 3, only those objects that make up the national language are loaded on the system.

- Clear job and output queues

  This is an input field. If you want to clear the job and output queues during the installation, type Y (Yes). If you do not want to clear the job and output queues, type N (No).

For more information about installing options, see *Backup and Recovery*, SC41-5304.

Change Restore Options Display

If you select option 1 (Restore programs and language objects from distribution media) on the OS/400 Installing Options display, the Change Restore Options display (example only) is shown:

```
                        Change Restore Options

Installation Profile . . . . . . . :   INSTALLX

Type choices, press Enter.

    System information . . .   3      1=Restore, 2=Do not restore
                                      3=Target system default

    Edit descriptions  . . .   3      1=Restore, 2=Do not restore
                                      3=Target system default

    Message reply list . . .   3      1=Restore, 2=Do not restore
                                      3=Target system default

    Job Descriptions . . . .   3      1=Restore, 2=Do not restore
                                      3=Target system default

    Subsystem Descriptions .   3      1=Restore, 2=Do not restore
                                      3=Target system default



 F3=Exit    F12=Cancel
```

The Change Restore Options display contains the following information:

- Installation profile

  This field is an output-only field. The system automatically displays the installation profile name (INSTALLX in the example) you created or chose on the Work with Installation Profiles display.

- System information

  - If you select option 1 (Restore), the system values are restored from the media. This is the recommended option for installing a new AS/400 system.

  - If you select option 2 (Do not restore), the system is installed with no change to the system values or the network attributes that are currently on the system.

  - If you select option 3 (Target system default), the installation program decides which installation option to use during the installation process (based on the state of the target system). This is the recommended option for installing a new release.

    Note: If you select option 3 (Target system default), you need to verify the setting of the QALWOBJRST system value for each target site system. To verify the setting, use the WRKSYSVAL (Work with System Values) command on each target site system. Make sure this system value is *ALL. If the QALWOBJRST system value is something other than ALL, software installs from the distribution tape created using the target system default may fail.

- Edit descriptions

  - If you select option 1 (Restore), the edit descriptions are loaded from the installation media. This is the recommended option for installing a new AS/400 system.

- If you select option 2 (Do not restore), the system is installed with no change to the edit descriptions currently on the system.

- If you select option 3 (Target system default), the installation program decides which installation option to use during the installation process (based on the state of the target system). This is the recommended option for installing a new release.

- Message reply list

  This is an input field.

  - If you select option 1 (Restore), the message reply list is loaded from the installation media. This is the recommended option for installing a new AS/400 system.

  - If you select option 2 (Do not restore), the system is installed with no change to the message reply list currently on the system.

  - If you select option 3 (Target system default), the installation program decides which installation option to use during the installation process (based on the state of the target system). This is the recommended option for installing a new release.

- Job Descriptions

  This is an input field.

  - If you select option 1 (Restore), the job descriptions are loaded from the installation media.

  - If you select option 2 (Keep customization), the job descriptions from the media are customized with the values that existed on the system before the installation.

  - If you select option 3 (Target system default), the installation program decides which installation option to use during the installation process (based on the state of the target system). If the job descriptions already exist, they will be used to customize the descriptions from the installation media. If the job descriptions do not exist, the descriptions from the installation media will be used.

- Subsystem descriptions

  This is an input field.

  - If you select option 1 (Restore), the subsystem descriptions are loaded from the installation media.

  - If you select option 2 (Keep customization), the subsystem descriptions from the media are customized with the values that existed on the system before the installation.

  - If you select option 3 (Target system default), the installation program decides which installation option to use during the installation process (based on the state of the target system). If the subsystem descriptions already exist, they will customize the descriptions from the installation media. If the subsystem descriptions do not exist, the descriptions from the installation media are used.

For more information about restore options, see *Backup and Recovery*, SC41-5304

Change OS/400 Installing Options Display

If you select option 3 (Change primary language using media containing secondary language) on the Change Profile Details display, the *Language feature* prompt (example only) is shown:

```
                        Change OS/400 Installing Options

   Installation Profile . . . . . . . :   INSTALLX

   Type choices, press Enter.

     Language feature . . . . .   2924    Code

     Clear job and output
       queues  . . . . . . . . .   N        Y=Yes, N=No










   F3=Exit    F12=Cancel
```

The Change OS/400 Installing Options display contains the following information:

- Installation profile

  This field is an output-only field. The system automatically displays the installation profile name (INSTALLX in the example) you created or chose on the Work with Installation Profiles display.

- Language feature

  You can specify a language feature code for the primary language in this input field. Language feature code 2924 is shown in the example; a different language feature code may be shown in your case.

  For a list of language feature codes, place the cursor in this field and press the Help key.

- Clear job and output queues

  This is an input field. If you want to clear the job and output queues during the installation, type Y (Yes). If you do not want to clear the job and output queues, type N (No).

For more information about installing options, see *Backup and Recovery*, SC41-5304.

Change Major System Options Display

After you press the Enter key from the Change Restore Options display or the Change OS/400 Installing Options display, the Change Major System Options display is shown (example only):

```
                        Change Major System Options

   Installation profile . . . . . . . . :  INSTALLX

   Type choices, press Enter.

      Enable automatic
        configuration . . .    *SAME      *SAME, Y=Yes, N=No

      Device configuration
        naming  . . . . . .    *SAME      *SAME, *NORMAL
                                          *S36, *DEVADR

      Default special
        environment . . . .    *SAME      *SAME, *NONE, *S36




   F3=Exit    F12=Cancel

```

The Change Major System Options display contains the following information:

- Installation profile

  This field is an output-only field. The system automatically displays the installation profile name (INSTALLX in the example) you created or chose on the Work with Installation Profiles display.

- Enable automatic configuration

  The value *SAME means using the current values at the target site system without changing those values. The value Y (Yes) automatically configures local devices. An N (No) indicates no automatic configuration. Specifying a value other than *SAME causes the QAUTOCFG system value to be changed at the target site system. For more information about automatic configuration, see *Local Device Configuration*, SC41-5121.

- Device configuration naming

  The value *SAME means using the current values at the target site system without changing those values. The value *NORMAL uses a naming convention unique to the AS/400 system. For example, DSP01 and PRT01 for display stations and printers, TAP01 and DKT01 for tapes and diskettes. The value *S36 uses a naming convention similar to System/36. For example, W1 and P1 for display stations and printers, T1 and I1 for tapes and diskettes. The value *DEVADR uses device names that are derived from resource names. Specifying a value other than *SAME causes the QDEVNAMING system value to be changed at the target site system. For more information about device configuration naming, see *Local Device Configuration*, SC41-5121.

- Default special environment

The value *SAME means using the current values at the target site system without changing those values. The value *NONE indicates there is no special environment. The value *S36 sets up the System/36 environment. Specifying a value other than *SAME causes the QSPCENV system to be changed at the target site system. For more information about working in the System/36 environment on the AS/400 system, see *System/36 Environment Programming*, SC41-4730.

Change Licensed Program Options Display

After you press the Enter key from the Change Major System Options display, the Change Licensed Program Options display is shown (example only):

```
                         Change Licensed Program Options

Installation Profile . . . . . . . :    INSTALLX

Type choices, press Enter.

    Install option . . .    4          1=Installed products
                                       2=All products
                                       3=New products
                                       4=Target system default


    Installation device .  *ALTIPL    *ALTIPL, Name

    Replace if current .   Y          Y=Yes, N=NO

    Automatic IPL . . . .  Y          Y=Yes, N=NO




 F3=Exit    F12=Cancel
```

The Change Licensed Program Options display contains the following information:

- Installation profile

  This field is an output-only field. The system automatically displays the installation profile name (INSTALLX in the example) you created or chose on the Work with Installation Profiles display.

- Install option

  - Installed products: Specifies to install all licensed programs and optional items of the licensed programs that are currently installed on the target system.

    When you use this option to install licensed programs, the system estimates the amount of auxiliary storage needed to perform the installation. If you do not have enough auxiliary storage to load the new release, the system issues an error message.

    Note: For an install to complete successfully when this option is selected, the distribution tape must contain all products currently shown on option 10 of the GO LICPGM menu. The tape must also be installed on the target site system.

- All products: Specifies to install all licensed programs and optional items of the licensed programs that are found on the distribution media.

- New products: Specifies to install only those licensed programs and optional items of the licensed programs that do not already exist on the system. Choose this option if you are adding new licensed programs to the target system.

  When you use this option, the system does not calculate the amount of auxiliary storage needed to perform the installation.

- Target system default: Specifies to have the installation program decide which option to use during the installation process. If the target site system has any operating system options from an earlier release or has any licensed programs currently installed, the system uses option 1 (Installed products). If the target site system does not have any operating system options from an earlier release or has any licensed programs currently installed, the system uses option 2 (All products).

  When you use this option, the system does not calculate the amount of auxiliary storage needed to perform the installation.

- Installation device

  Type the name of the installation media device you are using for the installation process.

  The value *ALTIPL means the installation media device used to install the operating system is used. Select this option if you are creating an installation profile for use at several target systems that may use different names for installation media devices.

- Replace if current

  The value Y (Yes) specifies to replace existing products that are already installed at the same level that is on the installation media. An N (No) specifies to not replace existing products that are already installed at the same level that is on the installation media. The default value is Yes.

- Automatic IPL

  The value Y (Yes) specifies to perform an automatic IPL after the install process is complete. An automatic IPL is done only if the installation function completes successfully. An N (No) specifies not to perform an automatic IPL. The Sign On display is shown after the installation process is complete.

For more information about licensed program options, see *Software Installation*, SC41-5120.

When you have finished creating or changing an installation profile, press the Enter key to complete the task.

Displaying an Installation Profile

Option 5 (Display) on the Work with Installation Profiles display is for **viewing only**. You cannot select options or enter information using the display function. The displays show only the values you selected on the Work with Installation Profiles display and displays that follow.

For example, when you select option 5 (Display) on the Work with Installation Pro-
files display, the Display Profile Details display appears showing only the values
you previously selected (example only):

```
                              Display Profile Details

Installation Profile :  INSTALLX

Type of install  . . :  1          1=Replace current release with new release

Text . . . . . . . . .  Install new AS/400










Press Enter to continue.


F3=Exit    F12=Cancel
```

**When you have finished displaying an installation profile, press the Enter key
to complete the task.**

Deleting an Installation Profile

After you select option 4 (Delete) on the Work with Installation Profiles display, the
following display appears (example only):

```
                         Confirm Delete of Profiles

Press enter to confirm your choices for 4=Delete.
Press F12 to return to change your choices.


          Installation
Opt          Profile       Text
 4           INSTALLX      Install Release X










F12=Cancel
```

Press the Enter key to delete an installation profile and to complete the task.

Chapter 13. Replacement for Appendix A of Central Site Distribution

Licensed Program File Names

Tape file names and CD-ROM path names for multilingual or secondary language media are the same as those listed in this appendix. However, some program products do not have a secondary language. They are:

- 5769-SS1 options 6, 7, 8, 9, 13, 16, 18, 21, 26, and 27
- 5763-XF1 option 5
- 5763-XL1 base
- 5769-CB1 option 6
- 5769-DCT options 1 through 24
- 5769-FNT options 1 through 15
- 5769-FN1 options 1 through 5
- 576916-RG1 option 6
- 5716-US1 options 1, 3, 4, and 6
- 5769-MQ1 option 1
- 5769-WP1 option 4

Some of the file names in the list contain two x's (xx); for example, Q5769SS1420xx0001. Replace the two x's with the actual language ID on your distribution media.

On other file names, you will see two n's (nn); for example QV4R2M0LnnL29xx. The two n's represent a level indicator for your release.

Note: IBM supplies the list of file names. You can see the files QINPREP and QLPSSDEL on the list. However, when you use option 40 (create a distribution tape), these files are not on the distribution media.

For V4R2, some tape labels did not change and still have the prefix Q5763 or Q5716. However, the modification level for some program products did change. For example, in tape file name Q5763XC131xM.0001, the modification level is 31x where x is the current modification level. If the modification level for tape file names for a licensed program on your media is different, use that modification level of the licensed program.

If you received a distribution tape, use the Display Tape (DSPTAP) command to see the contents of it. If you received a CD-ROM, use the Work with Optical Volumes (WRKOPTVOL) command to see the contents of it.

Table 13-1 (Page 1 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
	5769-SS1 Operating System/400		

Table 13-1 (Page 2 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Not used on tape	/QCDIML	IML bootstrap file for CD-ROM installs only	
QFILEIML	Not used on CD-ROM	IML bootstrap file for tape installs only	
QV4R2M0L000.L29xx[1]	/QLANGID/QV4R2M0[1]	Primary language indicator file (installation use) (first time saved)	
	/QLANGID/Q_L29xx[1]	Primary language indicator file (installation use) (first time saved)	
QFILESCR	/QFILESCR	Licensed Internal Code displays	
QIAM400	/QIAM400	Indicates this is an AS/400	
QFILEMCD	/QFILEMCD	All Licensed Internal Code File	
QV4R2M0Lnn.L29xx[1]	/QLANGID/QV4R2M0[1]	Primary language indicator file (installation use) (second time saved)	
	/QLANGID/Q_L29xx[1]	Primary language indicator file (installation use) (second time saved)	
	/QLANGID/Q_LVLnn	Level indicator file	
QFILEIPL	/QFILEIPL	Install file	
QFILEIN	/QFILEIN	Install file	
Q5769SS1420M.0001	/Q5769SS1/Q420nnM_/Q00/Q01	Install file (QSYS simple objects)	
Q5769SS1420xx0001	/Q5769SS1/Q420nnxx/Q00/Q01	QSYS install file	Base
Q5769SS1420xx0002	/Q5769SS1/Q420nnxx/Q00/Q02	QSYS library file	Base
Q5769SS1420xx0003	/Q5769SS1/Q420nnxx/Q00/Q03	File	Base
Q5769SS1420M.0002	/Q5769SS1/Q420nnM_/Q00/Q02	Install file (QSYS Complex Objects)	
QFILEUPR	/QFILEUPR	User profiles and other security information	
QFILEIOC	/QFILEIOC	Configuration information	
QINPREP	/QINPREP	Install file	
QGPL.420nn.xx	/QUSRLIBS/Q420nnxx/QGPL	QGPL library file	
QUSRSYS.420nn.xx	/QUSRLIBS/Q420nnxx/QUSRSYS	QUSRSYS library file	
Q5769SS1420M.0101	/Q5769SS1/Q420M_/Q01/Q01	QSYS2 install file	1
Q5769SS1420M.0102	/Q5769SS1/Q420M_/Q01/Q02	QSYS2 library file	1
Q5769SS1420M.0103	/Q5769SS1/Q420M_/Q01/Q03	File	1
Q5769SS1420M.0104	/Q5769SS1/Q420M_/Q01/Q04	QQALIB install file	1
Q5769SS1420M.0105	/Q5769SS1/Q420M_/Q01/Q05	QQALIB library file	1
Q5769SS1420M.0201	/Q5769SS1/Q420M_/Q02/Q01	QHLPSYS install file	2
Q5769SS1420M.0202	/Q5769SS1/Q420M_/Q02/Q02	QHLPSYS library file	2
Q5769SS1420M.0301	/Q5769SS1/Q420M_/Q03/Q01	QSYSDIR install file	3
Q5769SS1420M.0302	/Q5769SS1/Q420M_/Q03/Q02	QSYSDIR library file	3
Q5769SS1420M.0303	/Q5769SS1/Q420M_/Q03/Q03	QSYSDIR file	3
Q5769SS1420M.0304	/Q5769SS1/Q420M_/Q03/Q04	QSYSDIR file	3
Q5769SS1420M.0305	/Q5769SS1/Q420M_/Q03/Q05	QSYSDIR file	3
Q5769SS1420M.0306	/Q5769SS1/Q420M_/Q03/Q06	QSYSDIR file	3
Q5769SS1420M.0307	/Q5769SS1/Q420M_/Q03/Q07	QSYSDIR file	3
Q5769SS1420M.0308	/Q5769SS1/Q420M_/Q03/Q08	QSYSDIR file	3
Q5769SS1420M.0309	/Q5769SS1/Q420M_/Q03/Q09	QSYSDIR file	3
Q5769SS1420M.0310	/Q5769SS1/Q420M_/Q03/Q10	QSYSDIR file	3
Q5769SS1420M.0311	/Q5769SS1/Q420M_/Q03/Q11	QSYSDIR file	3
Q5769SS1420M.0312	/Q5769SS1/Q420M_/Q03/Q12	QSYSDIR file	3
Q5769SS1420M.0313	/Q5769SS1/Q420M_/Q03/Q13	QSYSDIR file	3
Q5769SS1420M.0401	/Q5769SS1/Q420M_/Q04/Q01	QMGU install file	4

Table 13-1 (Page 3 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769SS1420M.0402	/Q5769SS1/Q420M_/Q04/Q02	QMGU library file	4
Q5769SS1420M.0501	/Q5769SS1/Q420M_/Q05/Q01	QSSP install file	5
Q5769SS1420M.0502	/Q5769SS1/Q420M_/Q05/Q02	QSSP library file	5
Q5769SS1420M.0503	/Q5769SS1/Q420M_/Q05/Q03	#DFULIB file	5
Q5769SS1420M.0504	/Q5769SS1/Q420M_/Q05/Q04	#DFULIB library file	5
Q5769SS1420M.0505	/Q5769SS1/Q420M_/Q05/Q05	#SEULIB install file	5
Q5769SS1420M.0506	/Q5769SS1/Q420M_/Q05/Q06	#SEULIB library file	5
Q5769SS1420M.0507	/Q5769SS1/Q420M_/Q05/Q07	#DSULIB install file	5
Q5769SS1420M.0508	/Q5769SS1/Q420M_/Q05/Q08	#DSULIB library file	5
Q5769SS1420M.0509	/Q5769SS1/Q420M_/Q05/Q09	#SDALIB install file	5
Q5769SS1420M.0510	/Q5769SS1/Q420M_/Q05/Q10	#SDALIB library file	5
Q5769SS1420M.0511	/Q5769SS1/Q420M_/Q05/Q11	#CGULIB install file	5
Q5769SS1420M.0512	/Q5769SS1/Q420M_/Q05/Q12	#CGULIB library file	5
Q5769SS1420M.0601	/Q5769SS1/Q420M_/Q06/Q01	QSYS38 install file	6
Q5769SS1420M.0602	/Q5769SS1/Q420M_/Q06/Q02	QSYS38 library file	6
Q5769SS1420M.0701	/Q5769SS1/Q420M_/Q07/Q01	QUSRTOOL install file	7
Q5769SS1420M.0702	/Q5769SS1/Q420M_/Q07/Q02	QUSRTOOL library file	7
Q5769SS1420M.0801	/Q5769SS1/Q420M_/Q08/Q01	QFNTCPL font install file	8
Q5769SS1420M.0802	/Q5769SS1/Q420M_/Q08/Q02	QFNTCPL font library file	8
Q5769SS1420M.0901	/Q5769SS1/Q420M_/Q09/Q01	QSYSV3R7M0 install file	9
Q5769SS1420M.0902	/Q5769SS1/Q420M_/Q09/Q02	QSYSV3R7M0 library file	9
Q5769SS1420M.0903	/Q5769SS1/Q420M_/Q09/Q03	QSYSV3R6M0 library file	9
Q5769SS1420M.0904	/Q5769SS1/Q420M_/Q09/Q04	QSYSV3R2M0 library file	9
Q5769SS1420M.0905	/Q5769SS1/Q420M_/Q09/Q05	QSYSV3R1M0 library file	9
Q5769SS1420M.1101	/Q5769SS1/Q420M_/Q11/Q01	QMU400 install file	11
Q5769SS1420M.1102	/Q5769SS1/Q420M_/Q11/Q02	QMU400 library file	11
Q5769SS1420M.1201	/Q5769SS1/Q420M_/Q12/Q01	QIWS Install file	12
Q5769SS1420M.1202	/Q5769SS1/Q420M_/Q12/Q02	QIWS Library file	12
Q5769SS1420M.1203	/Q5769SS1/Q420M_/Q12/Q03	File	12
Q5769SS1420M.1204	/Q5769SS1/Q420M_/Q12/Q04	File	12
Q5769SS1420M.1301	/Q5769SS1/Q420M_/Q13/Q01	QSYSINC Install file	13
Q5769SS1420M.1302	/Q5769SS1/Q420M_/Q13/Q02	QSYSINC Library file	13
Q5769SS1420M.1401	/Q5769SS1/Q420M_/Q14/Q01	QGDDM Install file	14
Q5769SS1420M.1402	/Q5769SS1/Q420M_/Q14/Q02	QGDDM Library file	14
Q5769SS1420M.1501	/Q5769SS1/Q420M_/Q15/Q01	QCPA Install file	15
Q5769SS1420M.1502	/Q5769SS1/Q420M_/Q15/Q02	QCPA library file	15
Q5769SS1420M.1601	/Q5769SS1/Q420M_/Q16/Q01	QUMEDIA install file	16
Q5769SS1420M.1602	/Q5769SS1/Q420M_/Q16/Q02	QUMEDIA library file	16
Q5769SS1420M.1701	/Q5769SS1/Q420M_/Q17/Q01	QAFPLIB install file	17
Q5769SS1420M.1702	/Q5769SS1/Q420M_/Q17/Q02	QAFPLIB library file	17
Q5769SS1420M.1801	/Q5769SS1/Q420M_/Q18/Q01	QMSE install file	18
Q5769SS1420M.1802	/Q5769SS1/Q420M_/Q18/Q02	QMSE library file	18
Q5769SS1420M.2001	/Q5769SS1/Q420M_/Q20/Q01	Advanced 36 QM36 install file	20
Q5769SS1420M.2002	/Q5769SS1/Q420M_/Q20/Q02	Advanced 36 QM36 library file	20
Q5769SS1420M.2101	/Q5769SS1/Q420M_/Q21/Q01	QSYSLOCALE install file	21
Q5769SS1420M.2102	/Q5769SS1/Q420M_/Q21/Q02	QSYSLOCALE library file	21
Q5769SS1420M.2201	/Q5769SS1/Q420M_/Q22/Q01	QSR install file	22
Q5769SS1420M.2202	/Q5769SS1/Q420M_/Q22/Q02	QSR library file	22
Q5769SS1420M.2301	/Q5769SS1/Q420M_/Q23/Q01	QSOC install file	23
Q5769SS1420M.2302	/Q5769SS1/Q420M_/Q23/Q02	QSOC library file	23
Q5769SS1420M.2401	/Q5769SS1/Q420M_/Q24/Q01	QFSNOTES Install file	24
Q5769SS1420M.2402	/Q5769SS1/Q420M_/Q24/Q02	QFSNOTES Library file	24
Q5769SS1420M.2403	/Q5769SS1/Q420M_/Q24/Q03	File	24
Q5769SS1420M.2501	/Q5769SS1/Q420M_/Q25/Q01	QFPNTWE install file	25
Q5769SS1420M.2502	/Q5769SS1/Q420M_/Q25/Q02	QFPNTWE library file	25
Q5769SS1420M.2503	/Q5769SS1/Q420M_/Q25/Q03	QFPNTWE library file	25

Table 13-1 (Page 4 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769SS1420M.2601	/Q5769SS1/Q420M_/Q26/Q01	QSMP install file	26
Q5769SS1420M.2602	/Q5769SS1/Q420M_/Q26/Q02	QSMP library file	26
Q5769SS1420M.2701	/Q5769SS1/Q420M_/Q27/Q01	QDB2MS Install file	27
Q5769SS1420M.2702	/Q5769SS1/Q420M_/Q27/Q02	QDB2MS Library file	27
Q5769SS1420M.2801	/Q5769SS1/Q420M_/Q28/Q01	QFLOWMARK install file	28
Q5769SS1420M.2802	/Q5769SS1/Q420M_/Q28/Q02	QFLOWMARK library file	28
Q5769SS1420M.2901	/Q5769SS1/Q420M_/Q29/Q01	AS/400 Integration for NT	29
Q5769SS1420M.2902	/Q5769SS1/Q420M_/Q29/Q02	AS/400 Integration for NT	29
Q5769SS1420M.2903	/Q5769SS1/Q420M_/Q29/Q03	AS/400 Integration for NT	29
Q5769SS1420M.2904	/Q5769SS1/Q420M_/Q29/Q04	AS/400 Integration for NT	29
Q5769SS1420M.2905	/Q5769SS1/Q420M_/Q29/Q05	AS/400 Integration for NT	29
Q5769SS1420M.2906	/Q5769SS1/Q420M_/Q29/Q06	AS/400 Integration for NT	29
Q5769SS1420M.2907	/Q5769SS1/Q420M_/Q29/Q07	AS/400 Integration for NT	29
Q5769SS1420M.2908	/Q5769SS1/Q420M_/Q29/Q08	AS/400 Integration for NT	29
Q5769SS1420M.2909	/Q5769SS1/Q420M_/Q29/Q09	AS/400 Integration for NT	29
Q5769SS1420M.2910	/Q5769SS1/Q420M_/Q29/Q10	AS/400 Integration for NT	29
Q5769SS1420M.2911	/Q5769SS1/Q420M_/Q29/Q11	AS/400 Integration for NT	29
Q5769SS1420M.2912	/Q5769SS1/Q420M_/Q29/Q12	AS/400 Integration for NT	29
Q5769SS1420M.2913	/Q5769SS1/Q420M_/Q29/Q13	AS/400 Integration for NT	29
Q5769SS1420M.2914	/Q5769SS1/Q420M_/Q29/Q14	AS/400 Integration for NT	29
Q5769SS1420M.2915	/Q5769SS1/Q420M_/Q29/Q15	AS/400 Integration for NT	29
Q5769SS1420M.2916	/Q5769SS1/Q420M_/Q29/Q16	AS/400 Integration for NT	29
Q5769SS1420M.2917	/Q5769SS1/Q420M_/Q29/Q17	AS/400 Integration for NT	29
Q5769SS1420M.2918	/Q5769SS1/Q420M_/Q29/Q18	AS/400 Integration for NT	29
Q5769SS1420M.2919	/Q5769SS1/Q420M_/Q29/Q19	AS/400 Integration for NT	29
Q5769SS1420M.3001	/Q5769SS1/Q420M_/Q30/Q01	QShell Interpreter	30
Q5769SS1420M.3002	/Q5769SS1/Q420M_/Q30/Q02	QShell Interpreter	30
Q5769SS1420M.3003	/Q5769SS1/Q420M_/Q30/Q03	QShell Interpreter	30
Q5769SS1420M.3101	/Q5769SS1/Q420M_/Q31/Q01	Domain Name System	31
Q5769SS1420M.3102	/Q5769SS1/Q420M_/Q31/Q02	Domain Name System	31
Q5769SS1420xx0101	/Q5769SS1/Q420xx/Q01/Q01	QSYS2 install file	1
Q5769SS1420xx0102	/Q5769SS1/Q420xx/Q01/Q02	QSYS2 library file	1
Q5769SS1420xx0103	/Q5769SS1/Q420xx/Q01/Q03	QDOC file	1
Q5769SS1420xx0104	/Q5769SS1/Q420xx/Q01/Q04	QQALIB install file	1
Q5769SS1420xx0105	/Q5769SS1/Q420xx/Q01/Q05	QQALIB library file	1
Q5769SS1420xx0201	/Q5769SS1/Q420xx/Q02/Q01	QHLPSYS install file	2
Q5769SS1420xx0202	/Q5769SS1/Q420xx/Q02/Q02	QHLPSYS library file	2
Q5769SS1420xx0301	/Q5769SS1/Q420xx/Q03/Q01	QSYSDIR install file	3
Q5769SS1420xx0302	/Q5769SS1/Q420xx/Q03/Q02	QSYSYDIR library file	3
Q5769SS1420xx0303	/Q5769SS1/Q420xx/Q03/Q03	QSYSCGI library file	3
Q5769SS1420xx0304	/Q5769SS1/Q420xx/Q03/Q04	file	3
Q5769SS1420xx0401	/Q5769SS1/Q420xx/Q04/Q01	QMGU install file	4
Q5769SS1420xx0402	/Q5769SS1/Q420xx/Q04/Q02	QMGU library file	4
Q5769SS1420xx0501	/Q5769SS1/Q420xx/Q05/Q01	QSSP install file	5
Q5769SS1420xx0502	/Q5769SS1/Q420xx/Q05/Q02	QSSP library file	5
Q5769SS1420xx0503	/Q5769SS1/Q420xx/Q05/Q03	#DFULIB file	5
Q5769SS1420xx0504	/Q5769SS1/Q420xx/Q05/Q04	#SEULIB install file	5
Q5769SS1420xx0505	/Q5769SS1/Q420xx/Q05/Q05	#DSULIB install file	5
Q5769SS1420xx0506	/Q5769SS1/Q420xx/Q05/Q06	#SDALIB install file	5
Q5769SS1420xx0507	/Q5769SS1/Q420xx/Q05/Q07	#CGULIB install file	5
Q5769SS1420xx0601	/Q5769SS1/Q420xx/Q06/Q01	QSYS38 install file	6
Q5769SS1420xx0602	/Q5769SS1/Q420xx/Q06/Q02	QSYS38 library file	6
Q5769SS1420xx0701	/Q5769SS1/Q420xx/Q07/Q01	QUSRTOOL install file	7
Q5769SS1420xx0702	/Q5769SS1/Q420xx/Q07/Q02	QUSRTOOL library file	7
Q5769SS1420xx0901	/Q5769SS1/Q420xx/Q09/Q01	QSYSV3R7M0 install file	9
Q5769SS1420xx0902	/Q5769SS1/Q420xx/Q09/Q02	QSYSV3R7M0 library file	9

Table 13-1 (Page 5 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769SS1420xx0903	/Q5769SS1/Q420xx/Q09/Q03	QSYSV3R6M0 library file	9
Q5769SS1420xx0904	/Q5769SS1/Q420xx/Q09/Q04	QSYSV3R2M0 library file	9
Q5769SS1420xx0905	/Q5769SS1/Q420xx/Q09/Q05	QSYSV3R1M0 library file	9
Q5769SS1420xx0906	/Q5769SS1/Q420xx/Q09/Q06	file	9
Q5769SS1420xx0907	/Q5769SS1/Q420xx/Q09/Q07	file	9
Q5769SS1420xx0908	/Q5769SS1/Q420xx/Q09/Q08	file	9
Q5769SS1420xx1101	/Q5769SS1/Q420xx/Q11/Q01	QMU400 install file	11
Q5769SS1420xx1102	/Q5769SS1/Q420xx/Q11/Q02	QMU400 library file	11
Q5769SS1420xx1201	/Q5769SS1/Q420xx/Q12/Q01	QIWS install file	12
Q5769SS1420xx1202	/Q5769SS1/Q420xx/Q12/Q02	QIWS library file	12
Q5769SS1420xx1203	/Q5769SS1/Q420xx/Q12/Q03	QGY library file	12
Q5769SS1420xx1204	/Q5769SS1/Q420xx/Q12/Q04	file	12
Q5769SS1420xx1401	/Q5769SS1/Q420xx/Q14/Q01	QGDDM Install file	14
Q5769SS1420xx1402	/Q5769SS1/Q420xx/Q14/Q02	QGDDM Library file	14
Q5769SS1420xx1501	/Q5769SS1/Q420xx/Q15/Q01	QCPA install file	15
Q5769SS1420xx1502	/Q5769SS1/Q420xx/Q15/Q02	QCPA library file	15
Q5769SS1420xx1601	/Q5769SS1/Q420xx/Q16/Q01	QUMEDIA install file	16
Q5769SS1420xx1602	/Q5769SS1/Q420xx/Q16/Q02	QUMEDIA library file	16
Q5769SS1420xx1701	/Q5769SS1/Q420xx/Q17/Q01	QAFPLIB install file	17
Q5769SS1420xx1702	/Q5769SS1/Q420xx/Q17/Q02	QAFPLIB library file	17
Q5769SS1420xx2001	/Q5769SS1/Q420xx/Q20/Q01	Advanced 36 QM36 install file	20
Q5769SS1420xx2002	/Q5769SS1/Q420xx/Q20/Q02	Advanced 36 QM36 library file	20
Q5769SS1420xx2201	/Q5769SS1/Q420xx/Q22/Q01	QSR install file	22
Q5769SS1420xx2202	/Q5769SS1/Q420xx/Q22/Q02	QSR library file	22
Q5769SS1420xx2301	/Q5769SS1/Q420xx/Q23/Q01	QSOC install file	23
Q5769SS1420xx2302	/Q5769SS1/Q420xx/Q23/Q02	QSOC Library file	23
Q5769SS1420xx2401	/Q5769SS1/Q420xx/Q24/Q01	QFSNOTES install file	24
Q5769SS1420xx2402	/Q5769SS1/Q420xx/Q24/Q02	QFSNOTES library file	24
Q5769SS1420xx2403	/Q5769SS1/Q420xx/Q24/Q03	File	24
Q5769SS1420xx2501	/Q5769SS1/Q420xx/Q25/Q01	QFPNTWE install file	25
Q5769SS1420xx2502	/Q5769SS1/Q420xx/Q25/Q02	QFPNTWE library file	25
Q5769SS1420xx2801	/Q5769SS1/Q420xx/Q28/Q01	QFLOWMARK install file	28
Q5769SS1420xx2802	/Q5769SS1/Q420xx/Q28/Q02	QFLOWMARK Library file	28
Q5769SS1420xx2901	/Q5769SS1/Q420xx/Q29/Q01	AS/400 Integration for NT	29
Q5769SS1420xx2902	/Q5769SS1/Q420xx/Q29/Q02	AS/400 Integration for NT	29
Q5769SS1420xx2903	/Q5769SS1/Q420xx/Q29/Q03	AS/400 Integration for NT	29
Q5769SS1420xx2904	/Q5769SS1/Q420xx/Q29/Q04	AS/400 Integration for NT	29
Q5769SS1420xx2905	/Q5769SS1/Q420xx/Q29/Q05	AS/400 Integration for NT	29
Q5769SS1420xx2906	/Q5769SS1/Q420xx/Q29/Q06	AS/400 Integration for NT	29
Q5769SS1420xx2907	/Q5769SS1/Q420xx/Q29/Q07	AS/400 Integration for NT	29
Q5769SS1420xx2908	/Q5769SS1/Q420xx/Q29/Q08	AS/400 Integration for NT	29
Q5769SS1420xx2909	/Q5769SS1/Q420xx/Q29/Q09	AS/400 Integration for NT	29
Q5769SS1420xx2910	/Q5769SS1/Q420xx/Q29/Q10	AS/400 Integration for NT	29
Q5769SS1420xx2911	/Q5769SS1/Q420xx/Q29/Q11	AS/400 Integration for NT	29
Q5769SS1420xx2912	/Q5769SS1/Q420xx/Q29/Q12	AS/400 Integration for NT	29
Q5769SS1420xx2913	/Q5769SS1/Q420xx/Q29/Q13	AS/400 Integration for NT	29
Q5769SS1420xx2914	/Q5769SS1/Q420xx/Q29/Q14	AS/400 Integration for NT	29
Q5769SS1420xx2915	/Q5769SS1/Q420xx/Q29/Q15	AS/400 Integration for NT	29
Q5769SS1420xx3001	/Q5769SS1/Q420xx/Q30/Q01	QShell Interpreter	30
Q5769SS1420xx3002	/Q5769SS1/Q420xx/Q30/Q02	QShell Interpreter	30
Q5769SS1420xx3003	/Q5769SS1/Q420xx/Q30/Q03	QShell Interpreter	30
Q5769SS1420xx3101	/Q5769SS1/Q420xx/Q31/Q01	Domain Name System	31
Q5769SS1420xx3102	/Q5769SS1/Q420xx/Q31/Q02	Domain Name System	31

1   For tape installs, this is one file and for CD-ROM installs, this is two files.

5769-AF1 IBM Advanced Function Printing Utilities for OS/400

Q5769AF1420M.0001	/Q5769AF1/Q420M_/Q00/Q01	QAFP install file	Base

Table 13-1 (Page 6 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769AF1420M.0002	/Q5769AF1/Q420M_/Q00/Q02	QAFP library file	Base
Q5769AF1420xx0001	/Q5769AF1/Q420xx/Q00/Q01	QAFP install file	Base
Q5769AF1420xx0002	/Q5769AF1/Q420xx/Q00/Q02	QAFP library file	Base
5769-AP1 IBM Advanced DBCS Printer Support for OS/400			
Q5769AP1420xx.0001	/Q5769AP1/Q420M_/Q00/Q01	QAPS install file	Base
Q5769AP1420M.0002	/Q5769AP1/Q420M_/Q00/Q02	QAPS library file	Base
Q5769AP1420M.0101	/Q5769AP1/Q420M_/Q01/Q01	QAPS2 install file	1
Q5769AP1420M.0102	/Q5769AP1/Q370M_/Q01/Q02	QAPS2 library file	1
Q5769AP1420xx0001	/Q5769AP1/Q420xx/Q00/Q01	QAPS install file	Base
Q5769AP1420xx0002	/Q5769AP1/Q420xx/Q00/Q02	QAPS library file	Base
Q5769AP1420xx0101	/Q5769AP1/Q420xx/Q01/Q01	QAPS2 Install file	1
Q5769AP1420xx0102	/Q5769AP1/Q420xx/Q01/Q02	QAPS2 library file	1
5769-BR1 Backup Recovery and Media Services for OS/400			
Q5769BR1410M.0001	/Q5769BR1Q410M_/Q00/Q01	QBRM install file	Base
Q5769BR1410M.0002	/Q5769BR1/Q410M_/Q00/Q02	QBRM library file	Base
Q5769BR1410xx0001	/Q5769BR1/Q410xx/Q00/Q01	QBRM install file	Base
Q5769BR1410xx0002	/Q5716BR1/Q410xx/Q00/Q02	QBRM library file	Base
5769- B1 Integrated Language Environment COBOL for OS/400			
Q5769CB1420M.0001	/Q5769CB1/Q420M_/Q00/Q01	QCBLLE install file	Base
Q5769CB1420M.0002	/Q5769CB1/Q420M_/Q00/Q02	QCBLLE library file	Base
Q5769CB1420M.0101	/Q5769CB1/Q420M_/Q01/Q01	#COBLIB install file	1
Q5769CB1420M.0102	/Q5769CB1/Q420M_/Q01/Q02	#COBLIB library file	1
Q5769CB1420M.0201	/Q5769CB1/Q420M_/Q02/Q01	QCBL install file	2
Q5769CB1420M.0202	/Q5769CB1/Q420M_/Q02/Q02	QCBL library file	2
Q5769CB1420M.0501	/Q5769CB1/Q420M_/Q05/Q01	QLBL install file	5
Q5769CB1420M.0502	/Q5769CB1/Q420M_/Q05/Q02	QLBL library file	5
Q5769CB1420M.0601	/Q5769CB1/Q420M_/Q06/Q01	QCBLLEP install file	6
Q5769CB1420M.0602	/Q5769CB1/Q420M_/Q06/Q02	QCBLLEP library file	6
Q5769CB1420xx0001	/Q5769CB1/Q420xx/Q00/Q01	QCBLLE install file	Base
Q5769CB1420xx0002	/Q5769CB1/Q420xx/Q00/Q02	QCBLLE library file	Base
Q5769CB1420xx0101	/Q5769CB1/Q420xx/Q01/Q01	#COBLIB install file	1
Q5769CB1420xx0102	/Q5769CB1/Q420xx/Q01/Q02	#COBLIB library file	1
Q5769CB1420xx0201	/Q5769CB1/Q420xx/Q02/Q01	QCBL install file	2
Q5769CB1420xx0202	/Q5769CB1/Q420xx/Q02/Q02	QCBL library file	2
Q5769CB1420xx0501	/Q5769CB1/Q420xx/Q05/Q01	QLBL install file	5
Q5769CB1420xx0502	/Q5769CB1/Q420xx/Q05/Q02	QLBL library file	5
5769-F1 Point-of-Sale Communications Utility for OS/400			
Q5769CF1420M.0001	/Q5769CF1/Q420M_/Q00/Q01	QPOS install file	Base
Q5769CF1420M.0002	/Q5769CF1/Q420M_/Q00/Q02	QPOS library file	Base
Q5769CF1420xx0001	/Q5769CF1/Q420xx/Q00/Q01	QPOS install file	Base
Q5769CF1420xx0002	/Q5769CF1/Q420xx/Q00/Q02	QPOS library file	Base
5716-CL1 Application Development ToolSet Client Server for OS/400			
Q5716CL1360M.0001	/Q5716CL1/Q360M_/Q00/Q01	QADTSCS install file	Base
Q5716CL1360M.0002	/Q5716CL1/Q360M_/Q00/Q02	QADTSCS library file	Base
Q5716CL1360M.0003	/Q5716CL1/Q360M_/Q00/Q03	File	Base
Q5716CL1360M.0101	/Q5716CL1/Q360M_/Q01/Q01	QCODE400 install file	1
Q5716CL1360M.0102	/Q5716CL1/Q360M_/Q01/Q02	QCODE400 library file	1
Q5716CL1360M.0103	/Q5716CL1/Q360M_/Q01/Q03	File	1
Q5716CL1360M.0201	/Q5716CL1/Q360M_/Q02/Q01	QVRPG install file	2
Q5716CL1360M.0202	/Q5716CL1/Q360M_/Q02/Q02	QVRPG library file	2
Q5716CL1360M.0203	/Q5716CL1/Q360M_/Q02/Q03	File	2
Q5716CL1360xx0001	/Q5716CL1/Q360xx/Q00/Q01	QADTSCS install file	Base
Q5716CL1360xx0002	/Q5716CL1/Q360xx/Q00/Q02	QADTSCS library file	Base
Q5716CL1360xx0003	/Q5716CL1/Q360xx/Q00/Q03	File	Base

Table 13-1 (Page 7 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5716CL1360xx0101	/Q5716CL1/Q360xx/Q01/Q01	QCODE400 install file	1
Q5716CL1360xx0102	/Q5716CL1/Q360xx/Q01/Q02	QCODE400 library file	1
Q5716CL1360xx0103	/Q5716CL1/Q360xx/Q01/Q03	File	1
Q5716CL1360xx0201	/Q5716CL1/Q360xx/Q02/Q01	QVRPG install file	2
Q5716CL1360xx0202	/Q5716CL1/Q360xx/Q02/Q02	QVRPG library file	2
Q5716CL1360xx0203	/Q5716CL1/Q360xx/Q02/Q03	File	2
5763-CL2 Application Development ToolSet Client Server for OS/400			
Q5763CL2321M.0001	/Q5763CL2/Q321M_/Q00/Q01	QADTSWIN install file	Base
Q5763CL2321M.0002	/Q5763CL2/Q321M_/Q00/Q02	QADTSWIN library file	Base
Q5763CL2321M.0003	/Q5763CL2/Q321M_/Q00/Q03	File	Base
Q5763CL2321M.0101	/Q5763CL2/Q321M_/Q01/Q01	QCODEWIN install file	1
Q5763CL2321M.0102	/Q5763CL2/Q321M_/Q01/Q02	QCODEWIN library file	1
Q5763CL2321M.0103	/Q5763CL2/Q321M_/Q01/Q03	File	1
Q5763CL2321M.0201	/Q5763CL2/Q321M_/Q02/Q01	QVRPGWIN install file	2
Q5763CL2321M.0202	/Q5763CL2/Q321M_/Q02/Q02	QVRPGWIN library file	2
Q5763CL2321M.0203	/Q5763CL2/Q321M_/Q02/Q03	File	2
Q5763CL2321xx0001	/Q5763CL2/Q321xx/Q00/Q01	QADTSWIN install file	Base
Q5763CL2321xx0002	/Q5763CL2/Q321xx/Q00/Q02	QADTSWIN library file	Base
Q5763CL2321xx0003	/Q5763CL2/Q321xx/Q00/Q03	File	Base
Q5763CL2321xx0101	/Q5763CL2/Q321xx/Q01/Q01	QCODEWIN install file	1
Q5763CL2321xx0102	/Q5763CL2/Q321xx/Q01/Q02	QCODEWIN library file	1
Q5763CL2321xx0103	/Q5763CL2/Q321xx/Q01/Q03	File	1
Q5763CL2321xx0201	/Q5763CL2/Q321xx/Q02/Q01	QVRPGWIN install file	2
Q5763CL2321xx0202	/Q5763CL2/Q321xx/Q02/Q02	QVRPGWIN library file	2
Q5763CL2321xx0203	/Q5763CL2/Q321xx/Q02/Q03	File	2
5769-CM1 Communications Utilities for OS/400			
Q5769CM1420M.0001	/Q5769CM1/Q420M_/Q00/Q01	QRJE install file	Base
Q5769CM1420M.0002	/Q5769CM1/Q420M_/Q00/Q02	QRJE library file	Base
Q5769CM1420xx0001	/Q5769CM1/Q420xx/Q00/Q01	QRJE install file	Base
Q5769CM1420xx0002	/Q5769CM1/Q420xx/Q00/Q02	QRJE library file	Base
5716-CP3 CallPath for OS/400			
Q5716CP3370M.0001	/Q5716CP3/Q370M_/Q00/Q01	QTY install file	Base
Q5716CP3370M.0002	/Q5716CP3/Q370M_/Q00/Q02	QTY library file	Base
Q5716CP3370xx0001	/Q5716CP3/Q370xx/Q00/Q01	QTY install file	Base
Q5716CP3370xx0002	/Q5716CP3/Q370xx/Q00/Q02	QTY library file	Base
5769-CR1 Cryptographic Support for OS/400			
Q5769CR1420M.0001	/Q5769CR1/Q420M_/Q00/Q01	QCRP install file	Base
Q5769CR1420M.0002	/Q5769CR1/Q420M_/Q00/Q02	QCRP library file	Base
Q5769CR1420xx0001	/Q5769CR1/Q420xx/Q00/Q01	QCRP install file	Base
Q5769CR1420xx0002	/Q5769CR1/Q420xx/Q00/Q02	QCRP library file	Base
5769-CX2 Integrated Language Environment C for OS/400			
Q5769CX2420M.0001	/Q5769CX2/Q420M_/Q00/Q01	QCLE install file	Base
Q5769CX2420M.0002	/Q5769CX2/Q420M_/Q00/Q02	QCLE library file	Base
Q5769CX2420xx0001	/Q5769CX2/Q420xx/Q00/Q01	QCLE install file	Base
Q5769CX2420xx0002	/Q5769CX2/Q420xx/Q00/Q02	QCLE library file	Base
5716-CX4 VisualAge C++ for OS/400			
Q5716CX4360M.0001	/Q5716CX4/Q360M_/Q00/Q01	QCPP install file	Base
Q5716CX4360M.0002	/Q5716CX4/Q360M_/Q00/Q02	QCPP library file	Base
Q5716CX4360M.0101	/Q5716CX4/Q360M_/Q01/Q01	QCPP install file	1
Q5716CX4360M.0102	/Q5716CX4/Q360M_/Q01/Q02	QCPP library file	1
Q5716CX4360M.0103	/Q5716CX4/Q360M_/Q01/Q03	File	1
Q5716CX4360xx0001	/Q5716CX4/Q360xx/Q00/Q01	QCPP install file	Base
Q5716CX4360xx0002	/Q5716CX4/Q360xx/Q00/Q02	QCPP library file	Base

Table 13-1 (Page 8 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5716CX4360xx0101	/Q5716CX4/Q360xx/Q01/Q01	QCPP install file	1
Q5716CX4360xx0102	/Q5716CX4/Q360xx/Q01/Q02	QCPP library file	1
Q5716CX4360xx0103	/Q5716CX4/Q360xx/Q01/Q03	File	1
5716-CX5 VisualAge C++ for OS/400			
Q5716CX5370M.0001	/Q5716CX5/Q370M_/Q00/Q01	QCPPH install file	Base
Q5716CX5370M.0002	/Q5716CX5/Q370M_/Q00/Q02	QCPPH library file	Base
Q5716CX5370M.0101	/Q5716CX5/Q370M_/Q01/Q01	QCTTH install file	1
Q5716CX5370M.0102	/Q5716CX5/Q370M_/Q01/Q02	QCTTH library file	1
Q5716CX5370M.0103	/Q5716CX5/Q370M_/Q01/Q03	File	1
Q5716CX5370M.0104	/Q5716CX5/Q370M_/Q01/Q04	File	1
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
Q5716CX5370M.0184	/Q5716CX5/Q370M_/Q01/Q84	File	1
Q5716CX5370M.0185	/Q5716CX5/Q370M_/Q01/Q85	File	1
Q5716CX5370xx0001	/Q5716CX5/Q370xx/Q00/Q01	QCPPH install file	Base
Q5716CX5370xx0002	/Q5716CX5/Q370xx/Q00/Q02	QCPPH library file	Base
Q5716CX5370xx0101	/Q5716CX5/Q370xx/Q01/Q01	QCTTH install file	1
Q5716CX5370xx0102	/Q5716CX5/Q370xx/Q01/Q02	QCTTH library file	1
Q5716CX5370xx0103	/Q5716CX5/Q370xx/Q01/Q03	File	1
Q5716CX5370xx0104	/Q5716CX5/Q370xx/Q01/Q04	File	1
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
(...)	(...)	(...)	(...)
Q5716CX5370xx0184	/Q5716CX5/Q370xx/Q01/Q84	File	1
Q5716CX5370xx0185	/Q5716CX5/Q370xx/Q01/Q85	File	1
5769-DB1 System/38 Utilities for OS/400			
Q5769DB1420M.0001	/Q5769DB1/Q420M_/Q00/Q01	QIDU install file	Base
Q5769DB1420M.0002	/Q5769DB1/Q420M_/Q00/Q02	QIDU library file	Base
Q5769DB1420xx0001	/Q5769DB1/Q420xx/Q00/Q01	QIDU install file	Base
Q5769DB1420xx0002	/Q5769DB1/Q420xx/Q00/Q02	QIDU library file	Base
5716-DCT Language Dictionaries for OS/400			
Q5716DCT370M.0001	/Q5716DCT/Q370M_/Q00/Q01	QDCT install file	Base
Q5716DCT370M.0002	/Q5716DCT/Q370M_/Q00/Q02	QDCT library file	Base
Q5716DCT370M.0101	/Q5716DCT/Q370M_/Q01/Q01	QDCT install file	1
Q5716DCT370M.0102	/Q5716DCT/Q370M_/Q01/Q02	QDCT library file	1
Q5716DCT370M.0201	/Q5716DCT/Q370M_/Q02/Q01	QDCT install file	2
Q5716DCT370M.0202	/Q5716DCT/Q370M_/Q02/Q02	QDCT library file	2
Q5716DCT370M.0301	/Q5716DCT/Q370M_/Q03/Q01	QDCT install file	3
Q5716DCT370M.0302	/Q5716DCT/Q370M_/Q03/Q02	QDCT library file	3
Q5716DCT370M.0401	/Q5716DCT/Q370M_/Q04/Q01	QDCT install file	4
Q5716DCT370M.0402	/Q5716DCT/Q370M_/Q04/Q02	QDCT library file	4
Q5716DCT370M.0501	/Q5716DCT/Q370M_/Q05/Q01	QDCT install file	5
Q5716DCT370M.0502	/Q5716DCT/Q370M_/Q05/Q02	QDCT library file	5
Q5716DCT370M.0601	/Q5716DCT/Q370M_/Q06/Q01	QDCT install file	6

Table 13-1 (Page 9 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5716DCT370M.0602	/Q5716DCT/Q370M_/Q06/Q02	QDCT library file	6
Q5716DCT370M.0701	/Q5716DCT/Q370M_/Q07/Q01	QDCT install file	7
Q5716DCT370M.0702	/Q5716DCT/Q370M_/Q07/Q02	QDCT library file	7
Q5716DCT370M.0801	/Q5716DCT/Q370M_/Q08/Q01	QDCT install file	8
Q5716DCT370M.0802	/Q5716DCT/Q370M_/Q08/Q02	QDCT library file	8
Q5716DCT370M.0901	/Q5716DCT/Q370M_/Q09/Q01	QDCT install file	9
Q5716DCT370M.0902	/Q5716DCT/Q370M_/Q09/Q02	QDCT library file	9
Q5716DCT370M.1001	/Q5716DCT/Q370M_/Q10/Q01	QDCT install file	10
Q5716DCT370M.1002	/Q5716DCT/Q370M_/Q10/Q02	QDCT library file	10
Q5716DCT370M.1101	/Q5716DCT/Q370M_/Q11/Q01	QDCT install file	11
Q5716DCT370M.1102	/Q5716DCT/Q370M_/Q11/Q02	QDCT library file	11
Q5716DCT370M.1201	/Q5716DCT/Q370M_/Q12/Q01	QDCT install file	12
Q5716DCT370M.1202	/Q5716DCT/Q370M_/Q12/Q02	QDCT library file	12
Q5716DCT370M.1301	/Q5716DCT/Q370M_/Q13/Q01	QDCT install file	13
Q5716DCT370M.1302	/Q5716DCT/Q370M_/Q13/Q02	QDCT library file	13
Q5716DCT370M.1401	/Q5716DCT/Q370M_/Q14/Q01	QDCT install file	14
Q5716DCT370M.1402	/Q5716DCT/Q370M_/Q14/Q02	QDCT library file	14
Q5716DCT370M.1501	/Q5716DCT/Q370M_/Q15/Q01	QDCT install file	15
Q5716DCT370M.1502	/Q5716DCT/Q370M_/Q15/Q02	QDCT library file	15
Q5716DCT370M.1601	/Q5716DCT/Q370M_/Q16/Q01	QDCT install file	16
Q5716DCT370M.1602	/Q5716DCT/Q370M_/Q16/Q02	QDCT library file	16
Q5716DCT370M.1701	/Q5716DCT/Q370M_/Q17/Q01	QDCT install file	17
Q5716DCT370M.1702	/Q5716DCT/Q370M_/Q17/Q02	QDCT library file	17
Q5716DCT370M.1801	/Q5716DCT/Q370M_/Q18/Q01	QDCT install file	18
Q5716DCT370M.1802	/Q5716DCT/Q370M_/Q18/Q02	QDCT library file	18
Q5716DCT370M.1901	/Q5716DCT/Q370M_/Q19/Q01	QDCT install file	19
Q5716DCT370M.1902	/Q5716DCT/Q370M_/Q19/Q02	QDCT library file	19
Q5716DCT370M.2001	/Q5716DCT/Q370M_/Q20/Q01	QDCT install file	20
Q5716DCT370M.2002	/Q5716DCT/Q370M_/Q20/Q02	QDCT library file	20
Q5716DCT370M.2101	/Q5716DCT/Q370M_/Q21/Q01	QDCT install file	21
Q5716DCT370M.2102	/Q5716DCT/Q370M_/Q21/Q02	QDCT library file	21
Q5716DCT370M.2201	/Q5716DCT/Q370M_/Q22/Q01	QDCT install file	22
Q5716DCT370M.2202	/Q5716DCT/Q370M_/Q22/Q02	QDCT library file	22
Q5716DCT370M.2301	/Q5716DCT/Q370M_/Q23/Q01	QDCT install file	23
Q5716DCT370M.2302	/Q5716DCT/Q370M_/Q23/Q02	QDCT library file	23
Q5716DCT370M.2401	/Q5716DCT/Q370M_/Q24/Q01	QDCT install file	24
Q5716DCT370xx0001	/Q5716DCT/Q370xx/Q00/Q01	QDCT install file	Base
Q5716DCT370xx0002	/Q5716DCT/Q370xx/Q00/Q02	QDCT library file	Base
5769-DFH CICS for OS/400			
Q5769DFH420M.0001	/Q5769DFH/Q420M_/Q00/Q01	QCICS install file	Base
Q5769DFH420M.0002	/Q5769DFH/Q420M_/Q00/Q02	QCICS library file	Base
Q5769DFH420xx0001	/Q5769DFH/Q420xx/Q00/Q01	QCICS install file	Base
Q5769DFH420xx0002	/Q5769DFH/Q420xx/Q00/Q02	QCICS library file	Base
Q5769DFH420M.0101	/Q5769DFH/Q420M_/Q01/Q01	QCICSSAMP install file	1
Q5769DFH420M.0102	/Q5769DFH/Q420M_/Q01/Q02	QCICSSAMP library file	1
Q5769DFH420xx0101	/Q5769DFH/Q420xx/Q01/Q01	QCICSSAMP install file	1
Q5769DFH420xx0102	/Q5769DFH/Q420xx/Q01/Q02	QCICSSAMP library file	1
5769-DP1 DataPropagator Relational Capture and Apply for OS/400			
Q5769DP1420M.0001	/Q5769DP1/Q420M_/Q00/Q01	QDPR install file	Base
Q5769DP1420M.0002	/Q5769DP1/Q420M_/Q00/Q02	QDPR library file	Base
Q5769DP1420xx0001	/Q5769DP1/Q420xx/Q00/Q01	QDPR install file	Base
Q5769DP1420xx0002	/Q5769DP1/Q420xx/Q00/Q02	QDPR library file	Base
5769-DS1 Business Graphics Utility for OS/400			
Q5769DS1420M.0001	/Q5769DS1/Q420M_/Q00/Q01	QBGU install file	Base
Q5769DS1420M.0002	/Q5769DS1/Q420M_/Q00/Q02	QBGU library file	Base

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Tape File Name	CD-ROM Path Name	Description	Option
Q5769DS1420xx0001	/Q5769DS1/Q420xx/Q00/Q01	QBGU install file	Base
Q5769DS1420xx0002	/Q5769DS1/Q420xx/Q00/Q02	QBGU library file	Base
5769-FNT Advanced Function Printing Fonts for OS/400			
Q5769FNT420M.0001	/Q5769FNT/Q420M_/Q00/Q01	QFNT00 base install file	Base
Q5769FNT420M.0002	/Q5769FNT/Q420M_/Q00/Q02	QFNT00 base library file	Base
Q5769FNT420M.0101	/Q5769FNT/Q420M_/Q01/Q01	QFNT01 Sonoran Serif**1 install file (Feature ID 5051)	1
Q5769FNT420M.0102	/Q5769FNT/Q420M_/Q01/Q02	QFNT01 Sonoran Serif library file (Feature ID 5051)	1
Q5769FNT420M.0201	/Q5769FNT/Q420M_/Q02/Q01	QFNT02 Sonoran Serif Head-liner install file (Feature ID 5052)	2
Q5769FNT420M.0202	/Q5769FNT/Q420M_/Q02/Q02	QFNT02 Sonoran Serif Head-liner library file (Feature ID 5052)	2
Q5769FNT420M.0301	/Q5769FNT/Q420M_/Q03/Q01	QFNT03 Sonoran Sans Serif**2 install file (Feature ID 5053)	3
Q5769FNT420M.0302	/Q5769FNT/Q420M_/Q03/Q02	QFNT03 Sonoran Sans Serif library file (Feature ID 5053)	3
Q5769FNT420M.0401	/Q5769FNT/Q420M_/Q04/Q01	QFNT04 Sonoran Sans Serif Headliner install file (Feature ID 5054)	4
Q5769FNT420M.0402	/Q5769FNT/Q420M_/Q04/Q02	QFNT04 Sonoran Sans Serif Headliner lib file (Feature ID 5054)	4
Q5769FNT420M.0501	/Q5769FNT/Q420M_/Q05/Q01	QFNT04 Sonoran Sans Serif Condensed install file (Feature ID 5055)	5
Q5769FNT420M.0502	/Q5769FNT/Q420M_/Q05/Q02	QFNT05 Sonoran Sans Serif Condensed lib file (Feature ID 5055)	5
Q5769FNT420M.0601	/Q5769FNT/Q420M_/Q06/Q01	QFNT06 Sonoran Sans Serif Expanded install file (Feature ID 5056)	6
Q5769FNT420M.0602	/Q5769FNT/Q420M_/Q06/Q02	QFNT06 Sonoran Sans Serif Expanded lib file (Feature ID 5056)	6
Q5769FNT420M.0701	/Q5769FNT/Q420M_/Q07/Q01	QFNT07 Monotype Garamond** install file (Feature ID 5057)	7
Q5769FNT420M.0702	/Q5769FNT/Q420M_/Q07/Q02	QFNT07 Monotype Garamond library file (Feature ID 5057)	7
Q5769FNT420M.0801	/Q5769FNT/Q420M_/Q08/Q01	QFNT08 Century Schoolbook** install file (Feature ID 5058)	8
Q5769FNT420M.0802	/Q5769FNT/Q420M_/Q08/Q02	QFNT08 Century Schoolbook library file (Feature ID 5058)	8
Q5769FNT420M.0901	/Q5769FNT/Q420M_/Q09/Q01	QFNT09 Pi and Specials install file (Feature ID 5059)	9
Q5769FNT420M.0902	/Q5769FNT/Q420M_/Q09/Q02	QFNT09 Pi and Specials library file (Feature ID 5059)	9
Q5769FNT420M.1001	/Q5769FNT/Q420M_/Q10/Q01	QFNT10 ITC Souvenir** install file (Feature ID 5060)	10
Q5769FNT420M.1002	/Q5769FNT/Q420M_/Q10/Q02	QFNT10ITC Souvenir library file (Feature ID 5060)	10
Q5769FNT420M.1101	/Q5769FNT/Q420M_/Q11/Q01	QFNT11 ITC Avant Garde Gothic** install file (Feature ID 5061)	11

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Tape File Name	CD-ROM Path Name	Description	Option
Q5769FNT420M.1102	/Q5769FNT/Q420M_/Q11/Q02	QFNT11 ITC Avant Garde Gothic library file (Feature ID 5061)	11
Q5769FNT420M.1201	/Q5769FNT/Q420M_/Q12/Q01	QFNT12 Math and Science library file (Feature ID 5062)	12
Q5769FNT420M.1202	/Q5769FNT/Q420M_/Q12/Q02	QFNT12 Math and Science library file (Feature ID 5062)	12
Q5769FNT420M.1301	/Q5769FNT/Q420M_/Q13/Q01	QFNT13 Data1 install file (Feature ID 5063)	13
Q5769FNT420M.1302	/Q5769FNT/Q420M_/Q13/Q02	QFNT13 Data1 library file (Feature ID 5063)	13
Q5769FNT420M.1401	/Q5769FNT/Q420M_/Q14/Q01	QFNT14 APL2 install file (Feature ID 5064)	14
Q5769FNT420M.1402	/Q5769FNT/Q420M_/Q14/Q02	QFNT14 APL2 library file (Feature ID 5064)	14
Q5769FNT420M.1501	/Q5769FNT/Q420M_/Q15/Q01	QFNT15 OCRA and OCRB install file (Feature ID 5065)	15
Q5769FNT420M.1502	/Q5769FNT/Q420M_/Q15/Q02	QFNT15 OCRA and OCRB library file (Feature ID 5065)	15
Q5769FNT420xx0001	/Q5769FNT/Q420xx/Q00/Q01	QFNT00 base install file	Base
Q5769FNT420xx0002	/Q5769FNT/Q420xx/Q00/Q02	QFNT00 base library file	Base

1   Sonoran Serif is a functional equivalent of Monotype Times New Roman.**

2   Sonoran Sans Serif is a functional equivalent of Monotype Arial.**

5769-FN1 Advanced Function Printing DBCS Fonts for OS/400

Tape File Name	CD-ROM Path Name	Description	Option
Q5769FN1420M.0001	/Q5769FN1/Q420M_/Q00/Q01	QFNT60 base install file	Base
Q5769FN1420M.0002	/Q5769FN1/Q420M_/Q00/Q02	QFNT60 base library file	Base
Q5769FN1420M.0101	/Q5769FN1/Q420M_/Q01/Q01	QFNT61 Japanese install file (Feature ID 5051)	1
Q5769FN1420M.0102	/Q5769FN1/Q420M_/Q01/Q02	QFNT61 Japanese library file (Feature ID 5051)	1
Q5769FN1420M.0201	/Q5769FN1/Q420M_/Q02/Q01	QFNT62 Korean install file (Feature ID 5052)	2
Q5769FN1420M.0202	/Q5769FN1/Q420M_/Q02/Q02	QFNT62 Korean library file (Feature ID 5052)	2
Q5769FN1420M.0301	/Q5769FN1/Q420M_/Q03/Q01	QFNT63 Traditional Chinese install file (Feature ID 5053)	3
Q5769FN1420M.0302	/Q5769FN1/Q420M_/Q03/Q02	QFNT63 Traditional Chinese library file (Feature ID 5053)	3
Q5769FN1420M.0401	/Q5769FN1/Q420M_/Q04/Q01	QFNT64 Simplified Chinese install file (Feature ID 5054)	4
Q5769FN1420M.0402	/Q5769FN1/Q420M_/Q04/Q02	QFNT64 Simplified Chinese library file (Feature ID 5054)	4
Q5769FN1420M.0501	/Q5769FN1/Q420M_/Q05/Q01	QFNT65 Thai install file (Feature ID 5055)	5
Q5769FN1420M.0502	/Q5769FN1/Q420M_/Q05/Q02	QFNT65 Thai library file (Feature ID 5055)	5
Q5769FN1420xx0001	/Q5769FN1/Q420xx/Q00/Q01	QFNT60 base install file	Base
Q5769FN1420xx0002	/Q5769FN1/Q420xx/Q00/Q02	QFNT60 base library file	Base

5769-FW1 Firewall for AS/400

Tape File Name	CD-ROM Path Name	Description	Option
Q5769FW1420M.0001	/Q5769FW1/Q420M_/Q00/Q01	QIPSINT install file	Base
Q5769FW1420M.0002	/Q5769FW1/Q420M_/Q00/Q02	QIPSINT library file	Base
Q5769FW1420M.0003	/Q5769FW1/Q420M_/Q00/Q03	file	Base
Q5769FW1420M.0004	/Q5769FW1/Q420M_/Q00/Q04	file	Base
Q5769FW1420M.0005	/Q5769FW1/Q420M_/Q00/Q05	file	Base
Q5769FW1420M.0006	/Q5769FW1/Q420M_/Q00/Q06	file	Base

Table 13-1 (Page 12 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769FW1420M.0007	/Q5769FW1/Q420M_/Q00/Q07	file	Base
Q5769FW1420M.0008	/Q5769FW1/Q420M_/Q00/Q08	file	Base
Q5769FW1420M.0009	/Q5769FW1/Q420M_/Q00/Q09	file	Base
Q5769FW1420M.0010	/Q5769FW1/Q420M_/Q00/Q10	file	Base
Q5769FW1420M.0011	/Q5769FW1/Q420M_/Q00/Q11	file	Base
Q5769FW1420M.0012	/Q5769FW1/Q420M_/Q00/Q12	file	Base
Q5769FW1420M.0013	/Q5769FW1/Q420M_/Q00/Q13	file	Base
Q5769FW1420M.0014	/Q5769FW1/Q420M_/Q00/Q14	file	Base
Q5769FW1420M.0015	/Q5769FW1/Q420M_/Q00/Q15	file	Base
Q5769FW1420M.0016	/Q5769FW1/Q420M_/Q00/Q16	file	Base
Q5769FW1420M.0017	/Q5769FW1/Q420M_/Q00/Q17	file	Base
Q5769FW1420M.0018	/Q5769FW1/Q420M_/Q00/Q18	file	Base
Q5769FW1420M.0019	/Q5769FW1/Q420M_/Q00/Q19	file	Base
Q5769FW1420M.0020	/Q5769FW1/Q420M_/Q00/Q20	file	Base
Q5769FW1420M.0021	/Q5769FW1/Q420M_/Q00/Q21	file	Base
Q5769FW1420M.0022	/Q5769FW1/Q420M_/Q00/Q22	file	Base
Q5769FW1420M.0023	/Q5769FW1/Q420M_/Q00/Q23	file	Base
Q5769FW1420M.0024	/Q5769FW1/Q420M_/Q00/Q24	file	Base
Q5769FW1420M.0025	/Q5769FW1/Q420M_/Q00/Q25	file	Base
Q5769FW1420M.0026	/Q5769FW1/Q420M_/Q00/Q26	file	Base
Q5769FW1420M.0027	/Q5769FW1/Q420M_/Q00/Q27	file	Base
Q5769FW1420M.0028	/Q5769FW1/Q420M_/Q00/Q28	file	Base
Q5769FW1420M.0029	/Q5769FW1/Q420M_/Q00/Q29	file	Base
Q5769FW1420xx0001	/Q5769FW1/Q420xx/Q00/Q01	QIPSINT install file	Base
Q5769FW1420xx0002	/Q5769FW1/Q420xx/Q00/Q02	QIPSINT library file	Base
Q5769FW1420xx0003	/Q5769FW1/Q420xx/Q00/Q03	file	Base
Q5769FW1420xx0004	/Q5769FW1/Q420xx/Q00/Q04	file	Base
5763-JC1 AS/400 Toolbox for JAVA			
Q5763JC1320M.0001	/Q5763JC1/Q320M_/Q00/Q01	Install file	Base
Q5763JC1320M.0002	/Q5763JC1/Q320M_/Q00/Q02	Install file	Base
Q5763JC1320M.0003	/Q5763JC1/Q320M_/Q00/Q03	Install file	Base
Q5763JC1320xx0001	/Q5763JC1/Q320xx/Q00/Q01	library file	Base
Q5763JC1320xx0002	/Q5763JC1/Q320xx/Q00/Q02	library file	Base
Q5763JC1320xx0003	/Q5763JC1/Q320xx/Q00/Q03	library file	Base
5769-JS1 Job Scheduler for OS/400			
Q5769JS1420M.0001	/Q5769JS1/Q420M_/Q00/Q01	QIJS install file	Base
Q5769JS1420M.0002	/Q5769JS1/Q420M_/Q00/Q02	QIJS library file	Base
Q5769JS1420xx0001	/Q5769JS1/Q420xx/Q00/Q01	QIJS install file	Base
Q5769JS1420xx0002	/Q5769JS1/Q420xx/Q00/Q02	QIJS library file	Base
5769-JV1 AS/400 Developer Kit for JAVA			
Q5769JV1420M.0001	/Q5769JV1/Q420M_/Q00/Q01	Install file	Base
Q5769JV1420M.0002	/Q5769JV1/Q420M_/Q00/Q02	file	Base
Q5769JV1420M.0003	/Q5769JV1/Q420M_/Q00/Q03	file	Base
Q5769JV1420M.0004	/Q5769JV1/Q420M_/Q00/Q04	file	Base
Q5769JV1420M.0005	/Q5769JV1/Q420M_/Q00/Q05	file	Base
Q5769JV1420M.0006	/Q5769JV1/Q420M_/Q00/Q06	file	Base
Q5769JV1420M.0007	/Q5769JV1/Q420M_/Q00/Q07	file	Base
Q5769JV1420M.0008	/Q5769JV1/Q420M_/Q00/Q08	file	Base
Q5769JV1420xx0001	/Q5769JV1/Q420xx/Q00/Q01	file	Base
Q5769JV1420xx0002	/Q5769JV1/Q420xx/Q00/Q02	file	Base
Q5769JV1420xx0003	/Q5769JV1/Q420xx/Q00/Q03	file	Base
Q5769JV1420xx0004	/Q5769JV1/Q420xx/Q00/Q04	file	Base
5769-MG1 SystemView Managed System Services for OS/400			
Q5769MG1420M.0001	/Q5769MG1/Q420M_/Q00/Q01	QSVMSS install file	Base

Table 13-1 (Page 13 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769MG1420M.0002	/Q5769MG1/Q420M_/Q00/Q02	QSVMSS library file	Base
Q5769MG1420xx0001	/Q5769MG1/Q420xx/Q00/Q01	QSVMSS install file	Base
Q5769MG1420xx0002	/Q5769MG1/Q420xx/Q00/Q02	QSVMSS library file	Base
5769-MQ1 MQSeries for OS/400			
Q5769MQ1420M.0001	/Q5769MQ1/Q420M_/Q00/Q01	QMQM install file	Base
Q5769MQ1420M.0002	/Q5769MQ1/Q420M_/Q00/Q02	QMQM library file	Base
Q5769MQ1420M.0003	/Q5769MQ1/Q420M_/Q00/Q03	QMQM library file	Base
Q5769MQ1420M.0101	/Q5769MQ1/Q420M_/Q01/Q01	QMQMSAMP install file	1
Q5769MQ1420M.0102	/Q5769MQ1/Q420M_/Q01/Q02	QMQMSAMP library file	1
Q5769MQ1420M.0201	/Q5769MQ1/Q420M_/Q02/Q01	QMQMADM install file	2
Q5769MQ1420M.0202	/Q5769MQ1/Q420M_/Q02/Q02	QMQMADM library file	2
Q5769MQ1420xx0001	/Q5769MQ1/Q420xx/Q00/Q01	QMQM install file	Base
Q5769MQ1420xx0002	/Q5769MQ1/Q420xx/Q00/Q02	QMQM library file	Base
Q5769MQ1420xx0201	/Q5769MQ1/Q420xx/Q02/Q01	QMQMADM install file	2
Q5769MQ1420xx0202	/Q5769MQ1/Q420xx/Q02/Q02	QMQMADM library file	2
5769-NCE Internet Connection Secure Server (Int'l)			
Q5769NCE420M.0001	/Q5769NCE/Q420M/_/Q00/Q01	QICSS install file	Base
Q5769NCE420M.0002	/Q5769NCE/Q420M/_/Q00/Q02	QICSS library file	Base
Q5769NCE420M.0003	/Q5769NCE/Q420M/_/Q00/Q03	QICSS library file	Base
Q5769NCE420M.0004	/Q5769NCE/Q420M/_/Q00/Q04	QICSS library file	Base
Q5769NCE420M.0005	/Q5769NCE/Q420M/_/Q00/Q05	QICSS library file	Base
Q5769NCE420xx0001	/Q5769NCE/Q420xx/_/Q00/Q01	QICSS install file	Base
Q5769NCE420xx0002	/Q5769NCE/Q420xx/_/Q00/Q02	QICSS library file	Base
Q5769NCE420xx0003	/Q5769NCE/Q420xx/_/Q00/Q03	QICSS library file	Base
Q5769NCE420xx0004	/Q5769NCE/Q420xx/_/Q00/Q04	QICSS library file	Base
5769-NC1 Internet Connection Secure Server (US)			
Q5769NC1420M.0001	/Q5769NC1/Q420M/_/Q00/Q01	QICSS install file	Base
Q5769NC1420M.0002	/Q5769NC1/Q420M/_/Q00/Q02	QICSS library file	Base
Q5769NC1420M.0003	/Q5769NC1/Q420M/_/Q00/Q03	QICSS library file	Base
Q5769NC1420M.0004	/Q5769NC1/Q420M/_/Q00/Q04	QICSS library file	Base
Q5769NC1420M.0005	/Q5769NC1/Q420M/_/Q00/Q05	QICSS library file	Base
Q5769NC1420xx0001	/Q5769NC1/Q420xx/_/Q00/Q01	QICSS install file	Base
Q5769NC1420xx0002	/Q5769NC1/Q420xx/_/Q00/Q02	QICSS library file	Base
Q5769NC1420xx0003	/Q5769NC1/Q420xx/_/Q00/Q03	QICSS library file	Base
Q5769NC1420xx0004	/Q5769NC1/Q420xx/_/Q00/Q04	QICSS library file	Base
5769-PD1 Application Program Driver for AS/400			
Q5769PD1420M.0001	/Q5769PD1/Q420M_/Q00/Q01	QAPD install file	Base
Q5769PD1420M.0002	/Q5769PD1/Q420M_/Q00/Q02	QAPD library file	Base
Q5769PD1420xx0001	/Q5769PD1/Q420xx/Q00/Q01	QAPD install file	Base
Q5769PD1420xx0002	/Q5769PD1/Q420xx/Q00/Q02	QAPD library file	Base
5769-PM1 Performance Management/400			
Q5769PM1420M.0001	/Q5769PM1/Q420M_/Q00/Q01	QMPGLIB install file	Base
Q5769PM1420M.0002	/Q5769PM1/Q420M_/Q00/Q02	QMPGLIB library file	Base
Q5769PM1420xx0001	/Q5769PM1/Q420xx/Q00/Q01	QMPGLIB install file	Base
Q5769PM1420xx0002	/Q5769PM1/Q420xx/Q00/Q02	QMPGLIB library file	Base
5769-PT1 Performance Tools for OS/400			
Q5769PT1420M.0001	/Q5769PT1/Q420M_/Q00/Q01	QPFR install file	Base
Q5769PT1420M.0002	/Q5769PT1/Q420M_/Q00/Q02	QPFR library file	Base
Q5769PT1420M.0101	/Q5769PT1/Q420M_/Q01/Q01	QPFR install file	1
Q5769PT1420M.0102	/Q5769PT1/Q420M_/Q01/Q02	QPFR library file	1
Q5769PT1420M.0201	/Q5769PT1/Q420M_/Q02/Q01	QPFR install file	2
Q5769PT1420M.0202	/Q5769PT1/Q420M_/Q02/Q02	QPFR library file	2
Q5769PT1420xx0001	/Q5769PT1/Q420xx/Q00/Q01	QPFR install file	Base

Table 13-1 (Page 14 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769PT1420xx0002	/Q5769PT1/Q420xx/Q00/Q02	QPFR library file	Base
Q5769PT1420xx0101	/Q5769PT1/Q420xx/Q01/Q01	QPFR install file	1
Q5769PT1420xx0102	/Q5769PT1/Q420xx/Q01/Q02	QPFR library file	1
Q5769PT1420xx0201	/Q5769PT1/Q420xx/Q02/Q01	QPFR install file	2
Q5769PT1420xx0202	/Q5769PT1/Q420xx/Q02/Q02	QPFR library file	2
5769-PW1 Application Development ToolSet for OS/400			
Q5769PW1420M.0001	/Q5769PW1/Q420M_/Q00/Q01	QPDA install file	Base
Q5769PW1420M.0002	/Q5769PW1/Q420M_/Q00/Q02	QPDA library file	Base
Q5769PW1420M.0101	/Q5769PW1/Q420M_/Q01/Q01	QPDA install file	1
Q5769PW1420M.0102	/Q5769PW1/Q420M_/Q01/Q02	QPDA library file	1
Q5769PW1420M.0103	/Q5769PW1/Q420M_/Q01/Q03	QIXA library file	1
Q5769PW1420M.0104	/Q5769PW1/Q420M_/Q01/Q04	QCODE library file	1
Q5769PW1420M.0105	/Q5769PW1/Q420M_/Q01/Q05	File	1
Q5769PW1420M.0201	/Q5769PW1/Q420M_/Q02/Q01	QADM install file	2
Q5769PW1420M.0202	/Q5769PW1/Q420M_/Q02/Q02	QADM library file	2
Q5769PW1420M.0203	/Q5769PW1/Q420M_/Q02/Q03	File	2
Q5769PW1420M.0204	/Q5769PW1/Q420M_/Q02/Q04	File	2
Q5769PW1420M.0301	/Q5769PW1/Q420M_/Q03/Q01	QDMT install file	3
Q5769PW1420M.0302	/Q5769PW1/Q420M_/Q03/Q02	QDMT library file	3
Q5769PW1420xx0001	/Q5769PW1/Q420xx/Q00/Q01	QPDA install file	Base
Q5769PW1420xx0002	/Q5769PW1/Q420xx/Q00/Q02	QPDA library file	Base
Q5769PW1420xx0101	/Q5769PW1/Q420xx/Q01/Q01	QPDA install file	1
Q5769PW1420xx0102	/Q5769PW1/Q420xx/Q01/Q02	QPDA library file	1
Q5769PW1420xx0103	/Q5769PW1/Q420xx/Q01/Q03	QIXA install file	1
Q5769PW1420xx0104	/Q5769PW1/Q420xx/Q01/Q04	QIXA library file	1
Q5769PW1420xx0105	/Q5769PW1/Q420xx/Q01/Q05	File	1
Q5769PW1420xx0106	/Q5769PW1/Q420xx/Q01/Q06	File	1
Q5769PW1420xx0201	/Q5769PW1/Q420xx/Q02/Q01	QADM install file	2
Q5769PW1420xx0202	/Q5769PW1/Q420xx/Q02/Q02	QADM library file	2
Q5769PW1420xx0203	/Q5769PW1/Q420xx/Q02/Q03	File	2
Q5769PW1420xx0204	/Q5769PW1/Q420xx/Q02/Q04	File	2
Q5769PW1420xx0301	/Q5769PW1/Q420xx/Q03/Q01	QDMT install file	3
Q5769PW1420xx0302	/Q5769PW1/Q420xx/Q03/Q02	QDMT library file	3
5769-QU1 Query for OS/400			
Q5769QU1420M.0001	/Q5769QU1/Q420M_/Q00/Q01	QQRYLIB install file	Base
Q5769QU1420M.0002	/Q5769QU1/Q420M_/Q00/Q02	QQRYLIB library file	Base
Q5769QU1420xx0001	/Q5769QU1/Q420xx/Q00/Q01	QQRYLIB install file	Base
Q5769QU1420xx0002	/Q5769QU1/Q420xx/Q00/Q02	QQRYLIB library file	Base
5769-RD1 R/DARS			
Q5769RD1420M.0001	/Q5769RD1/Q420M_/Q00/Q01	QRDARS install file	Base
Q5769RD1420M.0002	/Q5769RD1/Q420M_/Q00/Q02	QRDARS library file	Base
Q5769RD1420M.0101	/Q5769RD1/Q420M_/Q01/Q01	QRDARS install file	1
Q5769RD1420M.0102	/Q5769RD1/Q420M_/Q01/Q02	QRDARS library file	1
Q5769RD1420M.0103	/Q5769RD1/Q420M_/Q01/Q03	QRDARS library file	1
Q5769RD1420M.0104	/Q5769RD1/Q420M_/Q01/Q04	QRDARS library file	1
Q5769RD1420M.0201	/Q5769RD1/Q420M_/Q02/Q01	QRDARS install file	2
Q5769RD1420M.0202	/Q5769RD1/Q420M_/Q02/Q02	QRDARS library file	2
Q5769RD1420M.0301	/Q5769RD1/Q420M_/Q03/Q01	QRDARS install file	3
Q5769RD1420M.0302	/Q5769RD1/Q420M_/Q03/Q02	QRDARS library file	3
Q5769RD1420M.0401	/Q5769RD1/Q420M_/Q04/Q01	QRDARS install file	4
Q5769RD1420M.0402	/Q5769RD1/Q420M_/Q04/Q02	QRDARS library file	4
Q5769RD1420xx0001	/Q5769RD1/Q420xx/Q00/Q01	QRDARS install file	Base
Q5769RD1420xx0002	/Q5769RD1/Q420xx/Q00/Q02	QRDARS library file	Base
Q5769RD1420xx0003	/Q5769RD1/Q420xx/Q00/Q03	QRDARS library file	Base
Q5769RD1420xx0004	/Q5769RD1/Q420xx/Q00/Q04	QRDARS library file	Base

Table 13-1 (Page 15 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769RD1420xx0101	/Q5769RD1/Q420xx/Q01/Q01	QRDARS install file	1
Q5769RD1420xx0102	/Q5769RD1/Q420xx/Q01/Q02	QRDARS library file	1
Q5769RD1420xx0201	/Q5769RD1/Q420xx/Q02/Q01	QRDARS install file	2
Q5769RD1420xx0202	/Q5769RD1/Q420xx/Q02/Q02	QRDARS library file	2
Q5769RD1420xx0301	/Q5769RD1/Q420xx/Q03/Q01	QRDARS install file	3
Q5769RD1420xx0302	/Q5769RD1/Q420xx/Q03/Q02	QRDARS library file	3
Q5769RD1420xx0401	/Q5769RD1/Q420xx/Q04/Q01	QRDARS install file	4
Q5769RD1420xx0402	/Q5769RD1/Q420xx/Q04/Q02	QRDARS library file	4
5769-RG1 Integrated Language Environment RPG OS/400			
Q5769RG1420M.0001	/Q5769RG1/Q420M_/Q00/Q01	QRPGLE install file	Base
Q5769RG1420M.0002	/Q5769RG1/Q420M_/Q00/Q02	QRPGLE library file	Base
Q5769RG1420M.0101	/Q5769RG1/Q420M_/Q01/Q01	#RPGLIB install file	1
Q5769RG1420M.0102	/Q5769RG1/Q420M_/Q01/Q02	#RPGLIB library file	1
Q5769RG1420M.0201	/Q5769RG1/Q420M_/Q02/Q01	QRPG38 install file	2
Q5769RG1420M.0202	/Q5769RG1/Q420M_/Q02/Q02	QRPG38 library file	2
Q5769RG1420M.0501	/Q5769RG1/Q420M_/Q05/Q01	QRPG install file	5
Q5769RG1420M.0502	/Q5769RG1/Q420M_/Q05/Q02	QRPG library file	5
Q5769RG1420M.0601	/Q5769RG1/Q420M_/Q06/Q01	QRPGLEP install file	6
Q5769RG1420M.0602	/Q5769RG1/Q420M_/Q06/Q02	QRPGLEP library file	6
Q5769RG1420xx0001	/Q5769RG1/Q420xx/Q00/Q01	QRPGLE install file	Base
Q5769RG1420xx0002	/Q5769RG1/Q420xx/Q00/Q02	QRPGLE library file	Base
Q5769RG1420xx0101	/Q5769RG1/Q420xx/Q01/Q01	#RPGLIB install file	1
Q5769RG1420xx0102	/Q5769RG1/Q420xx/Q01/Q02	#RPGLIB library file	1
Q5769RG1420xx0201	/Q5769RG1/Q420xx/Q02/Q01	QRPG38 install file	2
Q5769RG1420xx0202	/Q5769RG1/Q420xx/Q02/Q02	QRPG38 library file	2
Q5769RG1420xx0501	/Q5769RG1/Q420xx/Q05/Q01	QRPG install file	5
Q5769RG1420xx0502	/Q5769RG1/Q420xx/Q05/Q02	QRPG library file	5
5769-SA2 Integration Services for FSIOP			
Q5769SA2420M.0001	/Q5769SA2/Q420M_/Q00/Q01	QFPINT install file	Base
Q5769SA2420M.0002	/Q5769SA2/Q420M_/Q00/Q02	QFPINT library file	Base
Q5769SA2420M.0003	/Q5769SA2/Q420M_/Q00/Q03	File	Base
Q5769SA2420xx0001	/Q5769SA2/Q420xx/Q00/Q01	QFPINT install file	Base
Q5769SA2420xx0002	/Q5769SA2/Q420xx/Q00/Q02	QFPINT library file	Base
Q5769SA2420xx0003	/Q5769SA2/Q420xx/Q00/Q03	File	Base
5769-SA3 NetWare Integration for OS/400			
Q5769SA3420M.0001	/Q5769SA3/Q420M_/Q00/Q01	QFPNTWI install file	Base
Q5769SA3420M.0002	/Q5769SA3/Q420M_/Q00/Q02	QFPNTWI library file	Base
Q5769SA3420xx0001	/Q5769SA3/Q420xx/Q00/Q01	QFPNTWI install file	Base
Q5769SA3420xx0002	/Q5769SA3/Q420xx/Q00/Q02	QFPNTWI library file	Base
5769-SM1 SystemView System Manager for OS/400			
Q5769SM1420M.0001	/Q5769SM1/Q420M_/Q00/Q01	QSMU install file	Base
Q5769SM1420M.0002	/Q5769SM1/Q420M_/Q00/Q02	QSMU library file	Base
Q5769SM1420M.0003	/Q5769SM1/Q420M_/Q00/Q03	File	Base
Q5769SM1420xx0001	/Q5769SM1/Q420xx/Q00/Q01	QSMU install file	Base
Q5769SM1420xx0002	/Q5769SM1/Q420xx/Q00/Q02	QSMU library file	Base
Q5769SM1420xx0003	/Q5769SM1/Q420xx/Q00/Q03	File	Base
5769-ST1 DB2 Query Manager and SQL Development Kit for OS/400			
Q5769ST1420M.0001	/Q5769ST1/Q420M_/Q00/Q01	QSQL install file	Base
Q5769ST1420M.0002	/Q5769ST1/Q420M_/Q00/Q02	QSQL library file	Base
Q5769ST1420xx0001	/Q5769ST1/Q420xx/Q00/Q01	QSQL install file	Base
Q5769ST1420xx0002	/Q5769ST1/Q420xx/Q00/Q02	QSQL library file	Base
5716-SV2 ADSTAR Distributed Storage Manager for OS/400			
Q5716SV2370M.0001	/Q5716SV2/Q370M_/Q00/Q01	QADSM install file	Base

Table 13-1 (Page 16 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5716SV2370M.0002	/Q5716SV2/Q370M_/Q00/Q02	QADSM library file	Base
Q5716SV2370xx0001	/Q5716SV2/Q370xx/Q00/Q01	QADSM install file	Base
Q5716SV2370xx0002	/Q5716SV2/Q370xx/Q00/Q02	QADSM library file	Base
5716-SVA TME 10 NetFinity Server for AS/400			
Q5716SVA370M.0001	/Q5716SVA/Q370M_/Q00/Q01	QSVCM install file	1
Q5716SVA370M.0002	/Q5716SVA/Q370M_/Q00/Q02	QSVCM library file	2
Q5716SVA370M.0003	/Q5716SVA/Q370M_/Q00/Q03	File	3
Q5716SVA370M.0004	/Q5716SVA/Q370M_/Q00/Q04	File	4
Q5716SVA370240001	/Q5716SVA/Q37024_/Q00/Q01	QSVCM install file	1
Q5716SVA370240002	/Q5716SVA/Q37024_/Q00/Q02	QSVCM library file	2
Q5716SVA370240003	/Q5716SVA/Q37024_/Q00/Q03	File	3
Q5716SVA370240004	/Q5716SVA/Q37024_/Q00/Q04	File	4
5716-SVD TME 10 NetFinity Manager for 0S/2			
Q5716SVD370M.0001	/Q5716SVD/Q370M_/Q00/Q01	QSVCM2 install file	1
Q5716SVD370M.0002	/Q5716SVD/Q370M_/Q00/Q02	QSVCM2 library file	2
Q5716SVD370M.0003	/Q5716SVD/Q370M_/Q00/Q03	File	3
Q5716SVD370240001	/Q5716SVD/Q37024_/Q00/Q01	QSVCM2 install file	1
Q5716SVD370240002	/Q5716SVD/Q37024_/Q00/Q02	QSVCM2 library file	2
Q5716SVD370240003	/Q5716SVD/Q37024_/Q00/Q03	File	3
5716-SVE TME 10 NetFinity Manager for Windows 95			
Q5716SVE370M.0001	/Q5716SVE/Q370M_/Q00/Q01	QSVCM95 install file	1
Q5716SVE370M.0002	/Q5716SVE/Q370M_/Q00/Q02	QSVCM95 library file	2
Q5716SVE370M.0003	/Q5716SVE/Q370M_/Q00/Q03	File	3
Q5716SVE370240001	/Q5716SVE/Q37024_/Q00/Q01	QSVCM95 install file	1
Q5716SVE370240002	/Q5716SVE/Q37024_/Q00/Q02	QSVCM95 library file	2
Q5716SVE370240003	/Q5716SVE/Q37024_/Q00/Q03	File	3
5716-SVM SystemView Base for OS/400			
Q5716SVM370M.0001	/Q5716SVM/Q370M_/Q00/Q01	QSVBASE install file	Base
Q5716SVM370M.0002	/Q5716SVM/Q370M_/Q00/Q02	QSVBASE library file	Base
Q5716SVM370M.0101	/Q5716SVM/Q370M_/Q01/Q01	QSVLNCH install file	1
Q5716SVM370M.0102	/Q5716SVM/Q370M_/Q01/Q02	QSVLNCH library file	1
Q5716SVM370M.0103	/Q5716SVM/Q370M_/Q01/Q03	File	1
Q5716SVM370xx0001	/Q5716SVM/Q370xx/Q00/Q01	QSVBASE library file	Base
Q5716SVM370xx0002	/Q5716SVM/Q370xx/Q01/Q02	QSVBASE install file	Base
Q5716SVM370xx0101	/Q5716SVM/Q370xx/Q01/Q01	QSVLNCH install file	1
Q5716SVM370xx0102	/Q5716SVM/Q370xx/Q01/Q02	QSVLNCH library file	1
Q5716SVM370xx0103	/Q5716SVM/Q370xx/Q01/Q03	File	1
5769-TC1 TCP/IP Connectivity Utilities for OS/400			
Q5769TC1420M.0001	/Q5769TC1/Q420M_/Q00/Q01	QTCP install file	Base
Q5769TC1420M.0002	/Q5769TC1/Q420M_/Q00/Q02	QTCP library file	Base
Q5769TC1420M.0003	/Q5769TC1/Q420M_/Q00/Q03	File	Base
Q5769TC1420M.0004	/Q5769TC1/Q420M_/Q00/Q04	File	Base
Q5769TC1420M.0005	/Q5769TC1/Q420M_/Q00/Q05	File	Base
Q5769TC1420M.0006	/Q5769TC1/Q420M_/Q00/Q06	File	Base
Q5769TC1420M.0007	/Q5769TC1/Q420M_/Q00/Q07	File	Base
Q5769TC1420M.0008	/Q5769TC1/Q420M_/Q00/Q08	File	Base
Q5769TC1420M.0009	/Q5769TC1/Q420M_/Q00/Q09	File	Base
Q5769TC1420M.0010	/Q5769TC1/Q420M_/Q00/Q10	File	Base
Q5769TC1420M.0011	/Q5769TC1/Q420M_/Q00/Q11	File	Base
Q5769TC1420xx0001	/Q5769TC1/Q420xx/Q00/Q01	QTCP install file	Base
Q5769TC1420xx0002	/Q5769TC1/Q420xx/Q00/Q02	QTCP library file	Base
Q5769TC1420xx0003	/Q5769TC1/Q420xx/Q00/Q03	File	Base
Q5769TC1420xx0004	/Q5769TC1/Q420xx/Q00/Q04	File	Base

Table 13-1 (Page 17 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
5716-UB1 Ultimedia Business Conferencing for OS/400			
Q5716UB1360M.0001	/Q5716UB1/Q360M_/Q00/Q01	QUMCONFER install file	Base
Q5716UB1360M.0002	/Q5716UB1/Q360M_/Q00/Q02	QUMCONFER library file	Base
Q5716UB1360M.0101	/Q5716UB1/Q360M_/Q01/Q01	QUMBCEDS install file	1
Q5716UB1360M.0102	/Q5716UB1/Q360M_/Q01/Q02	QUMBCEDS library file	1
Q5716UB1360M.0103	/Q5716UB1/Q360M_/Q01/Q03	File	1
Q5716UB1360M.0201	/Q5716UB1/Q360M_/Q02/Q01	QUMBCOS2 install file	2
Q5716UB1360M.0202	/Q5716UB1/Q360M_/Q02/Q02	QUMBCOS2 library file	2
Q5716UB1360M.0203	/Q5716UB1/Q360M_/Q02/Q03	File	2
Q5716UB1360M.0301	/Q5716UB1/Q360M_/Q03/Q01	QUMPPOS2 install file	3
Q5716UB1360M.0302	/Q5716UB1/Q360M_/Q03/Q02	QUMPPOS2 library file	3
Q5716UB1360M.0303	/Q5716UB1/Q360M_/Q03/Q03	File	3
Q5716UB1360M.0401	/Q5716UB1/Q360M_/Q04/Q01	QUMPPWIN install file	4
Q5716UB1360M.0402	/Q5716UB1/Q360M_/Q04/Q02	QUMPPWIN library file	4
Q5716UB1360M.0403	/Q5716UB1/Q360M_/Q04/Q03	File	4
Q5716UB1360xx0001	/Q5716UB1/Q360xx/Q00/Q01	QUMCONFER install file	Base
Q5716UB1360xx0002	/Q5716UB1/Q360xx/Q00/Q02	QUMCONFER library file	Base
Q5716UB1360xx0101	/Q5716UB1/Q360xx/Q01/Q01	QUMBCEDS install file	1
Q5716UB1360xx0102	/Q5716UB1/Q360xx/Q01/Q02	QUMBCEDS library file	1
Q5716UB1360xx0103	/Q5716UB1/Q360xx/Q01/Q03	File	1
Q5716UB1360xx0201	/Q5716UB1/Q360xx/Q02/Q01	QUMBCOS2 install file	2
Q5716UB1360xx0202	/Q5716UB1/Q360xx/Q02/Q02	QUMBCOS2 library file	2
Q5716UB1360xx0203	/Q5716UB1/Q360xx/Q02/Q03	File	2
Q5716UB1360xx0301	/Q5716UB1/Q360xx/Q03/Q01	QUMPPOS2 install file	3
Q5716UB1360xx0302	/Q5716UB1/Q360xx/Q03/Q02	QUMPPOS2 library file	3
Q5716UB1360xx0303	/Q5716UB1/Q360xx/Q03/Q03	File	3
Q5716UB1360xx0401	/Q5716UB1/Q360xx/Q04/Q01	QUMPPWIN install file	4
Q5716UB1360xx0402	/Q5716UB1/Q360xx/Q04/Q02	QUMPPWIN library file	4
Q5716UB1360xx0403	/Q5716UB1/Q360xx/Q04/Q03	File	4
5716-US1 Client Access Ultimedia Tools for OS/400			
Q5716US1360M.0001	/Q5716US1/Q360M_/Q00/Q01	QUMHCATL install file	Base
Q5716US1360M.0002	/Q5716US1/Q360M_/Q00/Q02	QUMHCATL library file	Base
Q5716US1360M.0101	/Q5716US1/Q360M_/Q01/Q01	QUMPIOSS install file	1
Q5716US1360M.0102	/Q5716US1/Q360M_/Q01/Q02	QUMPIOSS library file	1
Q5716US1360M.0103	/Q5716US1/Q360M_/Q01/Q03	File	1
Q5716US1360M.0301	/Q5716US1/Q360M_/Q03/Q01	QUMPISAM install file	3
Q5716US1360M.0302	/Q5716US1/Q360M_/Q03/Q02	QUMPISAM library file	3
Q5716US1360M.0303	/Q5716US1/Q360M_/Q03/Q03	File	3
Q5716US1360M.0401	/Q5716US1/Q360M_/Q04/Q01	QUMBLOSS install file	4
Q5716US1360M.0402	/Q5716US1/Q360M_/Q04/Q02	QUMBLOSS library file	4
Q5716US1360M.0403	/Q5716US1/Q360M_/Q04/Q03	File	4
Q5716US1360M.0601	/Q5716US1/Q360M_/Q06/Q01	QUMBLSAM install file	6
Q5716US1360M.0602	/Q5716US1/Q360M_/Q06/Q02	QUMBLSAM library file	6
Q5716US1360M.0603	/Q5716US1/Q360M_/Q06/Q03	File	6
Q5716US1360xx0001	/Q5716US1/Q360xx/Q00/Q01	QUMHCATL install file	Base
Q5716US1360xx0002	/Q5716US1/Q360xx/Q00/Q02	QUMHCATL library file	Base
5716-VG1 VisualGen Host Services for OS/400			
Q5716VG1360M.0001	/Q5716VG1/Q360M_/Q00/Q01	QVGEN install file	Base
Q5716VG1360M.0002	/Q5716VG1/Q360M_/Q00/Q02	QVGEN library file	Base
Q5716VG1360xx0001	/Q5716VG1/Q360xx/Q00/Q01	QVGEN install file	Base
Q5716VG1360xx0002	/Q5716VG1/Q360xx/Q00/Q02	QVGEN library file	Base
5769-WP1 OfficeVision for OS/400			
Q5769WP1420M.0001	/Q5769WP1/Q420M_/Q00/Q01	QOFC install file	Base
Q5769WP1420M.0002	/Q5769WP1/Q420M_/Q00/Q02	QOFC library file	Base

Table 13-1 (Page 18 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5769WP1420M.0003	/Q5769WP1/Q420M_/Q00/Q03	QDOC folders file	Base
Q5769WP1420M.0101	/Q5769WP1/Q420M_/Q01/Q01	QBBCSRCH install file	1
Q5769WP1420M.0102	/Q5769WP1/Q420M_/Q01/Q02	QBBCSRCH library file	1
Q5769WP1420M.0201	/Q5769WP1/Q420M_/Q02/Q01	QOFC install file	2
Q5769WP1420M.0202	/Q5769WP1/Q420M_/Q02/Q02	QOFC library file	2
Q5769WP1420M.0203	/Q5769WP1/Q420M_/Q02/Q03	QDOC folders file	2
Q5769WP1420M.0301	/Q5769WP1/Q420M_/Q03/Q01	QOFC install file	3
Q5769WP1420M.0302	/Q5769WP1/Q420M_/Q03/Q02	QOFC library file	3
Q5769WP1420M.0303	/Q5769WP1/Q420M_/Q03/Q03	QDOC folders file	3
Q5769WP1420M.0401	/Q5769WP1/Q420M_/Q04/Q01	QOFC install file	4
Q5769WP1420M.0402	/Q5769WP1/Q420M_/Q04/Q02	QOFC library file	4
Q5769WP1420xx0001	/Q5769WP1/Q420xx/Q00/Q01	QOFC install file	Base
Q5769WP1420xx0002	/Q5769WP1/Q420xx/Q00/Q02	QOFC library file	Base
Q5769WP1420xx0003	/Q5769WP1/Q420xx/Q00/Q03	QDOC folders file	Base
Q5769WP1420xx0101	/Q5769WP1/Q420xx/Q01/Q01	QBBCSRCH install file	1
Q5769WP1420xx0102	/Q5769WP1/Q420xx/Q01/Q02	QBBCSRCH library file	1
Q5769WP1420xx0201	/Q5769WP1/Q420xx/Q02/Q01	QOFC install file	2
Q5769WP1420xx0202	/Q5769WP1/Q420xx/Q02/Q02	QOFC library file	2
Q5769WP1420xx0203	/Q5769WP1/Q420xx/Q02/Q03	QDOC folders file	2
Q5769WP1420xx0301	/Q5769WP1/Q420xx/Q03/Q01	QOFC library file	3
Q5769WP1420xx0302	/Q5769WP1/Q420xx/Q03/Q02	QOFC install file	3
Q5769WP1420xx0303	/Q5769WP1/Q420xx/Q03/Q03	QDOC folders file	3

5763-XB1 Client Access/400 DOS with Extended Memory			
Q5763XB1311M.0001	/Q5763XB1/Q311M_/Q00/Q01	QIWSP install file	Base
Q5763XB1311M.0002	/Q5763XB1/Q311M_/Q00/Q02	QIWSP library file	Base
Q5763XB1311M.0101	/Q5763XB1/Q311M_/Q01/Q01	QIWSPS install file	1
Q5763XB1311M.0102	/Q5763XB1/Q311M_/Q01/Q02	QIWSPS library file	1
Q5763XB1311M.0103	/Q5763XB1/Q311M_/Q01/Q03	QDOC folders file	1
Q5763XB1311M.0201	/Q5763XB1/Q311M_/Q02/Q01	QIFWSPD install file	2
Q5763XB1311M.0202	/Q5763XB1/Q311M_/Q02/Q02	QIFWSPD library file	2
Q5763XB1311M.0203	/Q5763XB1/Q311M_/Q02/Q03	QDOC folders file	2
Q5763XB1311M.0301	/Q5763XB1/Q311M_/Q03/Q01	QRUMBA install file	3
Q5763XB1311M.0302	/Q5763XB1/Q311M_/Q03/Q02	QRUMBA library file	3
Q5763XB1311M.0303	/Q5763XB1/Q311M_/Q03/Q03	QDOC folders file	3
Q5763XB1311M.0401	/Q5763XB1/Q311M_/Q04/Q01	QRUMBAD install file	4
Q5763XB1311M.0402	/Q5763XB1/Q311M_/Q04/Q02	QRUMBAD library file	4
Q5763XB1311M.0403	/Q5763XB1/Q311M_/Q04/Q03	QDOC folders file	4
Q5763XB1311M.0501	/Q5763XB1/Q311M_/Q05/Q01	QUMSFWIN install file	5
Q5763XB1311M.0502	/Q5763XB1/Q311M_/Q05/Q02	QUMSFWIN library file	5
Q5763XB1311M.0503	/Q5763XB1/Q311M_/Q05/Q03	QDOC folders file	5
Q5763XB1311xx0001	/Q5763XB1/Q311xx/Q00/Q01	QIWSP install File	Base
Q5763XB1311xx0002	/Q5763XB1/Q311xx/Q00/Q02	QIWSP library File	Base
Q5763XB1311xx0101	/Q5763XB1/Q311xx/Q01/Q01	QIWSPS install file	1
Q5763XB1311xx0102	/Q5763XB1/Q311xx/Q01/Q02	QIWSPS library file	1
Q5763XB1311xx0103	/Q5763XB1/Q311xx/Q01/Q03	QDOC folders file	1
Q5763XB1311xx0201	/Q5763XB1/Q311xx/Q02/Q01	QIWSPD install file	2
Q5763XB1311xx0202	/Q5763XB1/Q311xx/Q02/Q02	QIWSPD library file	2
Q5763XB1311xx0203	/Q5763XB1/Q311xx/Q02/Q03	QDOC folders file	2
Q5763XB1311xx0301	/Q5763XB1/Q311xx/Q03/Q01	QRUMBA install file	3
Q5763XB1311xx0302	/Q5763XB1/Q311xx/Q03/Q02	QRUMBA library file	3
Q5763XB1311xx0303	/Q5763XB1/Q311xx/Q03/Q03	QDOC folders file	3
Q5763XB1311xx0401	/Q5763XB1/Q311xx/Q04/Q01	QRUMBAD install file	4
Q5763XB1311xx0402	/Q5763XB1/Q311xx/Q04/Q02	QRUMBAD library file	4
Q5763XB1311xx0403	/Q5763XB1/Q311xx/Q04/Q03	QDOC folders file	4
Q5763XB1311xx0501	/Q5763XB1/Q311xx/Q05/Q01	QUMSFWIN install file	5
Q5763XB1311xx0502	/Q5763XB1/Q311xx/Q05/Q02	QUMSFWIN library file	5

Table 13-1 (Page 19 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5763XB1311xx0503	/Q5763XB1/Q311xx/Q05/Q03	QDOC folders file	5

5763-XC1 Client Access/400 for Windows 3.1

Tape File Name	CD-ROM Path Name	Description	Option
Q5763XC1311M.0001	/Q5763XC1/Q311M_/Q00/Q01	QPWXCLIB install file	Base
Q5763XC1311M.0002	/Q5763XC1/Q311M_/Q00/Q02	QPWXCLIB library file	Base
Q5763XC1311M.0101	/Q5763XC1/Q311M_/Q01/Q01	QPWXCWN install file	1
Q5763XC1311M.0102	/Q5763XC1/Q311M_/Q01/Q02	QPWXCWN library file	1
Q5763XC1311M.0103	/Q5763XC1/Q311M_/Q01/Q03	File	1
Q5763XC1311M.0201	/Q5763XC1/Q311M_/Q02/Q01	QPWXCWND install file	2
Q5763XC1311M.0202	/Q5763XC1/Q311M_/Q02/Q02	QPWXCWND library file	2
Q5763XC1311M.0203	/Q5763XC1/Q311M_/Q02/Q03	File	2
Q5763XC1311M.0301	/Q5763XC1/Q311M_/Q03/Q01	QPWXCRB install file	3
Q5763XC1311M.0302	/Q5763XC1/Q311M_/Q03/Q02	QPWXCRB library file	3
Q5763XC1311M.0303	/Q5763XC1/Q311M_/Q03/Q03	File	3
Q5763XC1311M.0401	/Q5763XC1/Q311M_/Q04/Q01	QPWXCRBD install file	4
Q5763XC1311M.0402	/Q5763XC1/Q311M_/Q04/Q02	QPWXCRBD library file	4
Q5763XC1311M.0403	/Q5763XC1/Q311M_/Q04/Q03	File	4
Q5763XC1311M.0501	/Q5763XC1/Q311M_/Q05/Q01	QPWXCPC install file	5
Q5763XC1311M.0502	/Q5763XC1/Q311M_/Q05/Q02	QPWXCPC library file	5
Q5763XC1311M.0503	/Q5763XC1/Q311M_/Q05/Q03	File	5
Q5763XC1311M.0601	/Q5763XC1/Q311M_/Q06/Q01	QPWXCGY install file	6
Q5763XC1311M.0602	/Q5763XC1/Q311M_/Q06/Q02	QPWXCGY library file	6
Q5763XC1311M.0603	/Q5763XC1/Q311M_/Q06/Q03	File	6
Q5763XC1311M.0701	/Q5763XC1/Q311M_/Q07/Q01	QPWXCUM nstall file	7
Q5763XC1311M.0702	/Q5763XC1/Q311M_/Q07/Q02	QPWXCUM library file	7
Q5763XC1311M.0703	/Q5763XC1/Q311M_/Q07/Q03	File	7
Q5763XC1311M.0801	/Q5763XC1/Q311M_/Q08/Q01	QPWXCGA install file	8
Q5763XC1311M.0802	/Q5763XC1/Q311M_/Q08/Q02	QPWXCGA library file	8
Q5763XC1311M.0803	/Q5763XC1/Q311M_/Q08/Q03	File	8
Q5763XC1311M.0901	/Q5763XC1/Q311M_/Q09/Q01	QPWXC50 install file	9
Q5763XC1311M.0902	/Q5763XC1/Q311M_/Q09/Q02	QPWXC50 library file	9
Q5763XC1311M.0903	/Q5763XC1/Q311M_/Q09/Q03	File	9
Q5763XC1311xx0001	/Q5763XC1/Q311xx/Q00/Q01	QPWXCLIB install file	Base
Q5763XC1311xx0002	/Q5763XC1/Q311xx/Q00/Q02	QPWXCLIB library file	Base
Q5763XC1311xx0101	/Q5763XC1/Q311xx/Q01/Q01	QPWXCWN install file	1
Q5763XC1311xx0102	/Q5763XC1/Q311xx/Q01/Q02	QPWXCWN library file	1
Q5763XC1311xx0103	/Q5763XC1/Q311xx/Q01/Q03	File	1
Q5763XC1311xx0201	/Q5763XC1/Q311xx/Q02/Q01	QPWXCWND install file	2
Q5763XC1311xx0202	/Q5763XC1/Q311xx/Q02/Q02	QPWXCWND library file	2
Q5763XC1311xx0203	/Q5763XC1/Q311xx/Q02/Q03	File	2
Q5763XC1311xx0301	/Q5763XC1/Q311xx/Q03/Q01	QPWXCRB install file	3
Q5763XC1311xx0302	/Q5763XC1/Q311xx/Q03/Q02	QPWXCRB library file	3
Q5763XC1311xx0303	/Q5763XC1/Q311xx/Q03/Q03	File	3
Q5763XC1311xx0401	/Q5763XC1/Q311xx/Q04/Q01	QPWXCRBD install file	4
Q5763XC1311xx0402	/Q5763XC1/Q311xx/Q04/Q02	QPWXCRBD library file	4
Q5763XC1311xx0403	/Q5763XC1/Q311xx/Q04/Q03	File	4
Q5763XC1311xx0501	/Q5763XC1/Q311xx/Q05/Q01	QPWXCPC install file	5
Q5763XC1311xx0502	/Q5763XC1/Q311xx/Q05/Q02	QPWXCPC library file	5
Q5763XC1311xx0503	/Q5763XC1/Q311xx/Q05/Q03	File	5
Q5763XC1311xx0601	/Q5763XC1/Q311xx/Q06/Q01	QPWXCGY install file	6
Q5763XC1311xx0602	/Q5763XC1/Q311xx/Q06/Q02	QPWXCGY library file	6
Q5763XC1311xx0603	/Q5763XC1/Q311xx/Q06/Q03	File	6
Q5763XC1311xx0701	/Q5763XC1/Q311xx/Q07/Q01	QPWXCUM install file	7
Q5763XC1311xx0702	/Q5763XC1/Q311xx/Q07/Q02	QPWXCUM library file	7
Q5763XC1311xx0703	/Q5763XC1/Q311xx/Q07/Q03	File	7
Q5763XC1311xx0801	/Q5763XC1/Q311xx/Q08/Q01	QPWXCGA install file	8
Q5763XC1311xx0802	/Q5763XC1/Q311xx/Q08/Q02	QPWXCGA library file	8

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Tape File Name	CD-ROM Path Name	Description	Option
Q5763XC1311xx0803	/Q5763XC1/Q311xx/Q08/Q03	File	8
Q5763XC1311xx0901	/Q5763XC1/Q311xx/Q09/Q01	QPWXC50 install file	9
Q5763XC1311xx0902	/Q5763XC1/Q311xx/Q09/Q02	QPWXC50 library file	9
Q5763XC1311xx0903	/Q5763XC1/Q311xx/Q09/Q03	File	9
5763-XD1 Client Access for Windows 95			
Q5763XD1313M.0001	/Q5763XD1/Q313M_/Q00/Q01	QWIN32 install file	Base
Q5763XD1313M.0002	/Q5763XD1/Q313M_/Q00/Q02	QWIN32 library file	Base
Q5763XD1313M.0003	/Q5763XD1/Q313M_/Q00/Q03	File	Base
Q5763XD1313xx0001	/Q5763XD1/Q313xx/Q00/Q01	QWIN32 install file	Base
Q5763XD1313xx0002	/Q5763XD1/Q313xx/Q00/Q02	QWIN32 library file	Base
Q5763XD1313xx0003	/Q5763XD1/Q313xx/Q00/Q03	File	Base
5763-XF1 Client Access/400 for OS/2			
Q5763XF1310M.0001	/Q5763XF1/Q310M_/Q00/Q01	QIWS2 install file	Base
Q5763XF1310M.0002	/Q5763XF1/Q310M_/Q00/Q02	QIWS2 library file	Base
Q5763XF1310M.0101	/Q5763XF1/Q310M_/Q01/Q01	QIWS2S install file	1
Q5763XF1310M.0102	/Q5763XF1/Q310M_/Q01/Q02	QIWS2S library file	1
Q5763XF1310M.0103	/Q5763XF1/Q310M_/Q01/Q03	QDOC folders file	1
Q5763XF1310M.0201	/Q5763XF1/Q310M_/Q02/Q01	QIWS2D install file	2
Q5763XF1310M.0202	/Q5763XF1/Q310M_/Q02/Q02	QIWS2D library file	2
Q5763XF1310M.0203	/Q5763XF1/Q310M_/Q02/Q03	QDOC folders file	2
Q5763XF1310M.0301	/Q5763XF1/Q310M_/Q03/Q01	QRUMBA2 install file	3
Q5763XF1310M.0302	/Q5763XF1/Q310M_/Q03/Q02	QRUMBA2 library file	3
Q5763XF1310M.0303	/Q5763XF1/Q310M_/Q03/Q03	QDOC folders file	3
Q5763XF1310M.0401	/Q5763XF1/Q310M_/Q04/Q01	QRUMBA2D install file	4
Q5763XF1310M.0402	/Q5763XF1/Q310M_/Q04/Q02	QRUMBA2D library file	4
Q5763XF1310M.0403	/Q5763XF1/Q310M_/Q04/Q03	QDOC folders file	4
Q5763XF1310M.0501	/Q5763XF1/Q310M_/Q05/Q01	QCM400 install file	5
Q5763XF1310M.0502	/Q5763XF1/Q310M_/Q05/Q02	QCM400 library file	5
Q5763XF1310M.0503	/Q5763XF1/Q310M_/Q05/Q03	QDOC folders file	5
Q5763XF1310M.0601	/Q5763XF1/Q310M_/Q06/Q01	QGYOS2 install file	6
Q5763XF1310M.0602	/Q5763XF1/Q310M_/Q06/Q02	QGYOS2 library file	6
Q5763XF1310M.0603	/Q5763XF1/Q310M_/Q06/Q03	File	6
Q5763XF1310M.0701	/Q5763XF1/Q310M_/Q07/Q01	QUMSF0S2 install file	7
Q5763XF1310M.0702	/Q5763XF1/Q310M_/Q07/Q02	QUMSF0S2 library file	7
Q5763XF1310M.0703	/Q5763XF1/Q310M_/Q07/Q03	QDOC folders file	7
Q5763XF1310xx0001	/Q5763XF1/Q310xx/Q00/Q01	QIWS2 install file	Base
Q5763XF1310xx0002	/Q5763XF1/Q310xx/Q00/Q02	QIWS2 library file	Base
Q5763XF1310xx0101	/Q5763XF1/Q310xx/Q01/Q01	QIWS2S install file	1
Q5763XF1310xx0102	/Q5763XF1/Q310xx/Q01/Q02	QIWS2S library file	1
Q5763XF1310xx0103	/Q5763XF1/Q310xx/Q01/Q03	QDOC folders file	1
Q5763XF1310xx0201	/Q5763XF1/Q310xx/Q02/Q01	QIWS2D install file	2
Q5763XF1310xx0202	/Q5763XF1/Q310xx/Q02/Q02	QIWS2D library file	2
Q5763XF1310xx0203	/Q5763XF1/Q310xx/Q02/Q03	QDOC folders file	2
Q5763XF1310xx0301	/Q5763XF1/Q310xx/Q03/Q01	QRUMBA2 install file	3
Q5763XF1310xx0302	/Q5763XF1/Q310xx/Q03/Q02	QRUMBA2 library file	3
Q5763XF1310xx0303	/Q5763XF1/Q310xx/Q03/Q03	QDOC folders file	3
Q5763XF1310xx0401	/Q5763XF1/Q310xx/Q04/Q01	QRUMBA2D install file	4
Q5763XF1310xx0402	/Q5763XF1/Q310xx/Q04/Q02	QRUMBA2D library file	4
Q5763XF1310xx0403	/Q5763XF1/Q310xx/Q04/Q03	QDOC folders file	4
Q5763XF1310xx0601	/Q5763XF1/Q310xx/Q06/Q01	QGYOS2 install file	6
Q5763XF1310xx0602	/Q5763XF1/Q310xx/Q06/Q02	QGYOS2 library file	6
Q5763XF1310xx0603	/Q5763XF1/Q310xx/Q06/Q03	File	6
Q5763XF1310xx0701	/Q5763XF1/Q310xx/Q07/Q01	QUMSFOS2 install file	7
Q5763XF1310xx0702	/Q5763XF1/Q310xx/Q07/Q02	QUMSFOS2 library file	7
Q5763XF1310xx0703	/Q5763XF1/Q310xx/Q07/Q03	File	7

Table 13-1 (Page 21 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
5763-XG1 Client Access Optimized OS/2 Client for OS/400			
Q5763XG1311M.0001	/Q5763XG1/Q311M_/Q00/Q01	QPWXGOS2 install file	Base
Q5763XG1311M.0002	/Q5763XG1/Q311M_/Q00/Q02	QPWXGOS2 library file	Base
Q5763XG1311M.0003	/Q5763XG1/Q311M_/Q00/Q03	File	Base
Q5763XG1311M.0101	/Q5763XG1/Q311M_/Q01/Q01	QPWXGRB install file	1
Q5763XG1311M.0102	/Q5763XG1/Q311M_/Q01/Q02	QPWXGRB library file	1
Q5763XG1311M.0103	/Q5763XG1/Q311M_/Q01/Q03	File	1
Q5763XG1311M.0201	/Q5763XG1/Q311M_/Q02/Q01	QPWXGPC install file	2
Q5763XG1311M.0202	/Q5763XG1/Q311M_/Q02/Q02	QPWXGPC library file	2
Q5763XG1311M.0203	/Q5763XG1/Q311M_/Q02/Q03	File	2
Q5763XG1311M.0301	/Q5763XG1/Q311M_/Q03/Q01	QPWXGGY install file	3
Q5763XG1311M.0302	/Q5763XG1/Q311M_/Q03/Q02	QPWXGGY library file	3
Q5763XG1311M.0303	/Q5763XG1/Q311M_/Q03/Q03	File	3
Q5763XG1311M.0401	/Q5763XG1/Q311M_/Q04/Q01	QPWXGUM install file	4
Q5763XG1311M.0402	/Q5763XG1/Q311M_/Q04/Q02	QPWXGUM library file	4
Q5763XG1311M.0403	/Q5763XG1/Q311M_/Q04/Q03	File	4
Q5763XG1311M.0501	/Q5763XG1/Q311M_/Q05/Q01	QPWXGGA install file	5
Q5763XG1311M.0502	/Q5763XG1/Q311M_/Q05/Q02	QPWXGGA library file	5
Q5763XG1311M.0503	/Q5763XG1/Q311M_/Q05/Q03	File	5
Q5763XG1311xx0001	/Q5763XG1/Q311xx/Q00/Q01	QPWXGOS2 install file	Base
Q5763XG1311xx0002	/Q5763XG1/Q311xx/Q00/Q02	QPWXGOS2 library file	Base
Q5763XG1311xx0003	/Q5763XG1/Q311xx/Q00/Q03	File	Base
Q5763XG1311xx0101	/Q5763XG1/Q311xx/Q01/Q01	QPWXGRB install file	1
Q5763XG1311xx0102	/Q5763XG1/Q311xx/Q01/Q02	QPWXGRB library file	1
Q5763XG1311xx0103	/Q5763XG1/Q311xx/Q01/Q03	File	1
Q5763XG1311xx0201	/Q5763XG1/Q311xx/Q02/Q01	QPWXGPC install file	2
Q5763XG1311xx0202	/Q5763XG1/Q311xx/Q02/Q02	QPWXGPC library file	2
Q5763XG1311xx0203	/Q5763XG1/Q311xx/Q02/Q03	File	2
Q5763XG1311xx0301	/Q5763XG1/Q311xx/Q03/Q01	QPWXGGY install file	3
Q5763XG1311xx0302	/Q5763XG1/Q311xx/Q03/Q02	QPWXGGY library file	3
Q5763XG1311xx0303	/Q5763XG1/Q311xx/Q03/Q03	File	3
Q5763XG1311xx0401	/Q5763XG1/Q311xx/Q04/Q01	QPWXGUM install file	4
Q5763XG1311xx0402	/Q5763XG1/Q311xx/Q04/Q02	QPWXGUM library file	4
Q5763XG1311xx0403	/Q5763XG1/Q311xx/Q04/Q03	File	4
Q5763XG1311xx0501	/Q5763XG1/Q311xx/Q05/Q01	QPWXGGA install file	5
Q5763XG1311xx0502	/Q5763XG1/Q311xx/Q05/Q02	QPWXGGA library file	5
Q5763XG1311xx0503	/Q5763XG1/Q311xx/Q05/Q03	File	5
5763-XK1 Client Access Enhanced for Windows			
Q5763XK1310M.0001	/Q5763XK1/Q310M_/Q00/Q01	QWIN16 install file	Base
Q5763XK1310M.0002	/Q5763XK1/Q310M_/Q00/Q02	QWIN16 library file	Base
Q5763XK1310M.0003	/Q5763XK1/Q310M_/Q00/Q03	File	Base
Q5763XK1310M.0101	/Q5763XK1/Q310M_/Q01/Q01	QWIN16S install file	1
Q5763XK1310M.0102	/Q5763XK1/Q310M_/Q01/Q02	QWIN16S library file	1
Q5763XK1310M.0103	/Q5763XK1/Q310M_/Q01/Q03	File	1
Q5763XK1310M.0201	/Q5763XK1/Q310M_/Q02/Q01	QWIN16D install file	2
Q5763XK1310M.0202	/Q5763XK1/Q310M_/Q02/Q02	QWIN16D library file	2
Q5763XK1310M.0203	/Q5763XK1/Q310M_/Q02/Q03	File	2
Q5763XK1310M.0301	/Q5763XK1/Q310M_/Q03/Q01	QPC5250K install file	3
Q5763XK1310M.0302	/Q5763XK1/Q310M_/Q03/Q02	QPC5250K library file	3
Q5763XK1310M.0303	/Q5763XK1/Q310M_/Q03/Q03	File	3
Q5763XK1310M.0401	/Q5763XK1/Q310M_/Q04/Q01	QPC5250T install file	4
Q5763XK1310M.0402	/Q5763XK1/Q310M_/Q04/Q02	QPC5250T library file	4
Q5763XK1310M.0403	/Q5763XK1/Q310M_/Q04/Q03	File	4
Q5763XK1310M.0501	/Q5763XK1/Q310M_/Q05/Q01	QPC5250P install file	5
Q5763XK1310M.0502	/Q5763XK1/Q310M_/Q05/Q02	QPC5250P library file	5

Table 13-1 (Page 22 of 22). IBM Distribution Media File Names

Tape File Name	CD-ROM Path Name	Description	Option
Q5763XK1310M.0503	/Q5763XK1/Q310M_/Q05/Q03	File	5
Q5763XK1310xx0001	/Q5763XK1/Q310xx_/Q00/Q01	QWIN16 install file	Base
Q5763XK1310xx0002	/Q5763XK1/Q310xx_/Q00/Q02	QWIN16 library file	Base
Q5763XK1310xx0003	/Q5763XK1/Q310xx_/Q00/Q03	File	Base
Q5763XK1310xx.0101	/Q5763XK1/Q310xx_/Q01/Q01	QWIN16S install file	1
Q5763XK1310xx.0102	/Q5763XK1/Q310xx_/Q01/Q02	QWIN16S library file	1
Q5763XK1310xx.0103	/Q5763XK1/Q310xx_/Q01/Q03	File	1
Q5763XK1310xx.0201	/Q5763XK1/Q310xx_/Q02/Q01	QWIN16D install file	2
Q5763XK1310xx.0202	/Q5763XK1/Q310xx_/Q02/Q02	QWIN16D library file	2
Q5763XK1310xx.0203	/Q5763XK1/Q310xx_/Q02/Q03	File	2
Q5763XK1310xx0301	/Q5763XK1/Q310xx_/Q03/Q01	QPC5250K install file	3
Q5763XK1310xx0302	/Q5763XK1/Q310xx_/Q03/Q02	QPC5250K library file	3
Q5763XK1310xx0303	/Q5763XK1/Q310xx_/Q03/Q03	File	3
Q5763XK1310xx0401	/Q5763XK1/Q310xx_/Q04/Q01	QPC5250T install file	4
Q5763XK1310xx0402	/Q5763XK1/Q310xx_/Q04/Q02	QPC5250T library file	4
Q5763XK1310xx0403	/Q5763XK1/Q310xx_/Q04/Q03	File	4
Q5763XK1310xx0501	/Q5763XK1/Q310xx_/Q05/Q01	QPC5250P install file	5
Q5763XK1310xx0502	/Q5763XK1/Q310xx_/Q05/Q02	QPC5250P library file	5
Q5763XK1310xx0503	/Q5763XK1/Q310xx_/Q05/Q03	File	5

5763-XL1 Client Access DOS Client for OS/400

Tape File Name	CD-ROM Path Name	Description	Option
Q5763XL1310M.0001	/Q5763XL1/Q310M_/Q00/Q01	QIWSF install file	Base
Q5763XL1310M.0002	/Q5763XL1/Q310M_/Q00/Q02	QIWSF library file	Base
Q5763XL1310M.0101	/Q5763XL1/Q310M_/Q01/Q01	QIWSFS install file	1
Q5763XL1310M.0102	/Q5763XL1/Q310M_/Q01/Q02	QIWSFS library file	1
Q5763XL1310M.0103	/Q5763XL1/Q310M_/Q01/Q03	File	1
Q5763XL1310M.0201	/Q5763XL1/Q310M_/Q02/Q01	QIWSFD install file	2
Q5763XL1310M.0202	/Q5763XL1/Q310M_/Q02/Q02	QIWSFD library file	2
Q5763XL1310M.0203	/Q5763XL1/Q310M_/Q02/Q03	File	2
Q5763XL1310xx0001	/Q5763XL1/Q310xx/Q00/Q01	QIWSF library file	Base
Q5763XL1310xx0002	/Q5763XL1/Q310xx/Q00/Q02	QIWSF file	Base
Q5763XL1310xx0101	/Q5763XL1/Q310xx/Q01/Q01	QIWSFS install file	1
Q5763XL1310xx0102	/Q5763XL1/Q310xx/Q01/Q02	QIWSFS library file	1
Q5763XL1310xx0103	/Q5763XL1/Q310xx/Q01/Q03	File	1
Q5763XL1310xx0201	/Q5763XL1/Q310xx/Q02/Q01	QIWSFD install file	2
Q5763XL1310xx0202	/Q5763XL1/Q310xx/Q02/Q02	QIWSFD library file	2
Q5763XL1310xx0203	/Q5763XL1/Q310xx/Q02/Q03	File	2

5769-XW1 Client Access/400 Windows Family Base

Tape File Name	CD-ROM Path Name	Description	Option
Q5769XW1410M.0001	/Q5769XW1/Q410M_/Q00/Q01	QCA400W install file	1
Q5769XW1410M.0002	/Q5769XW1/Q410M_/Q00/Q02	QCA400W library file	2
Q5769XW1410xx0001	/Q5769XW1/Q410xx_/Q00/Q01	QCA400W install file	1
Q5769XW1410xx0002	/Q5769XW1/Q410xx_/Q00/Q02	QCA400W library file	2

5769-XY1 Client Access/400 Family for 0S/2 and DOS

Tape File Name	CD-ROM Path Name	Description	Option
Q5769XY1410M.0001	/Q5769XY1/Q410M_/Q00/Q01	QCA400Y install file	1
Q5769XY1410M.0002	/Q5769XY1/Q410M_/Q00/Q02	QCA400Y library file	2
Q5769XY1410xx0001	/Q5769XY1/Q410xx_/Q00/Q01	QCA400Y install file	1
Q5769XY1410xx0002	/Q5769XY1/Q410xx_/Q00/Q02	QCA400Y library file	2

5716-XZ1 LAN Server for OS/400

Tape File Name	CD-ROM Path Name	Description	Option
Q5769XZ1410M.0001	/Q5769XZ1/Q410M_/Q00/Q01	QXZ1 install file	Base
Q5769XZ1410M.0002	/Q5769XZ1/Q410M_/Q00/Q02	QXZ1 library file	Base
Q5769XZ1410M.0003	/Q5769XZ1/Q410M_/Q00/Q03	File	Base
Q5769XZ1410xx0001	/Q5769XZ1/Q410xx/Q00/Q01	QXZ1 install file	Base
Q5769XZ1410xx0002	/Q5769XZ1/Q410xx/Q00/Q02	QXZ1 library file	Base
Q5769XZ1410xx0003	/Q5769XZ1/Q410xx/Q00/Q03	File	Base

Appendixes

Appendix A. Recovery Procedures

If you encounter a problem during installation, the information in this appendix may help you locate and correct the problem, then complete installing licensed programs.

Error messages and system reference codes (SRCs) let you know that an error occurred during the installation process. Use the error messages or SRCs to determine which part of the process failed.

Note: **For Your Information:**If an SRC appeared during the automatic or manual installation procedures, you should check" Quick Recovery for Common SRCs" on page 5-16 first.

Where You Begin Recovery

First, determine the type of failure by using Table A-1.

Table A-1 (Page 1 of 2). Type of failure

When Failure Occurred	What To Do
System requirements	If you attempt to install the new release before the system requirements are met, you will see a display that indicates which requirement is not met. Use "System Requirement Recovery" on page A-3 to power down and restart your system. Ensure that you correct the system requirements before you attempt to install the new release of software again.
Saving system before install	If a problem occurs while you are saving the system, review your job log to determine what caused the failure. Correct the error and complete your system save procedure. Do not continue to replace the new release until you have a complete backup copy of your system. If you cannot complete installing the new release, you will need this backup copy to restore the system to the previous release.
Installing new release or licensed program	Use Table A-2 to direct you to the recovery information you need to find the problem, determine what caused it, correct the problem, and then complete installing this release.
	In the farthest left column, locate the installation chapter you were using when the failure occurred. In the second column, locate which task you were performing in that chapter. Locate the first task that failed during your installation and then use the information in the last column to determine your recovery starting point.

Table A-1 (Page 2 of 2). Type of failure

When Failure Occurred	What To Do
Power failure during an installation process	If you have a power failure anytime during the installation process, go to the Table A-2 to determine where to start the installation again. You should be able to start with the task where you were at when the failure occurred. For example, if you had completed installing the operating system when the power failed, and are installing licensed programs, start with the task to install licensed programs. If you are using the automatic process, start at the beginning. The system can determine which tasks have not been completed and will resume at the appropriate task.

If the installation process fails and you cannot continue the current install, use the *Backup and Recovery*, SC41-5304 book, and your system backup to restore the previous release level.

Table A-2 (Page 1 of 2). Where to start recovery

Installation Chapter in Use	Task Number in Use at Time of Failure	Where to Start
Chapter 4, Replacing a Release Using Automatic Installation	"Task 1. Using Automatic Installation" on page 4-1	Go to "Starting Point for Automatic Installation Recovery" on page A-4.
Chapter 5, Replacing a Release Using Manual Installation	"Task 1. Replacing the Licensed Internal Code" on page 5-1	Go to "Licensed Internal Code Recovery" on page A-5.
	"Task 2. Replacing the Operating System" on page 5-6	Go to "Operating System Recovery" on page A-7.
	"Task 3. Replacing the Licensed Programs" on page 5-11	Go to "Licensed Programs, PTFs, and Secondary Language Recovery" on page A-10.
Chapter 6, Installing a New AS/400 System with the Operating System Already Installed	"Task 1. Doing the Initial Program Load (IPL)" on page 6-1	Go to "Operating System Recovery" on page A-7.
Chapter 7, Installing a New AS/400 System without the Operating System Installed	"Task 1. Installing the Operating System" on page 7-1	Go to "Operating System Recovery" on page A-7.
Chapter 8, Changing Your Primary Language Using Secondary Language Media	"Task 1. Changing the Primary Language" on page 8-1	Go to "Operating System Recovery" on page A-7.
	"Task 2. Installing the Licensed Programs" on page 8-5	Go to "Licensed Programs, PTFs, and Secondary Language Recovery" on page A-10.

Table A-2 (Page 2 of 2). Where to start recovery

Installation Chapter in Use	Task Number in Use at Time of Failure	Where to Start
Chapter 9, Installing Additional Licensed Programs	"Task 1. Using the Work with Licensed Programs Menu" on page 9-2	Go to "Licensed Programs, PTFs, and Secondary Language Recovery" on page A-10.
	"Task 2. Using the Restore Licensed Program Command" on page 9-6	Look at the messages for the command.
Chapter 10, Installing a Secondary Language	"Task 1. Using the Work with Licensed Programs Menu" on page 10-1	Go to "Licensed Programs, PTFs, and Secondary Language Recovery" on page A-10.
	"Task 2. Using the Restore Licensed Program Command" on page 10-4	Look at the messages for the command.

System Requirement Recovery

If you attempt to install V4R2M0 over V3R7M0 before the system meets the requirements described in "System Requirements for V4R2M0" on page 3-2, you will see an error display.

If the system does not have enough main memory, this display appears:

```
            Install Licensed Internal Code - Error

  Error:
      The hardware configuration has insufficient main storage
      capacity to allow the installation to proceed.  You must
      increase your main storage capacity before installing
      this release.

      Current total main storage capacity:              ____ MB
      Required total main storage capacity:             ____ MB
      Additional required total main storage capacity:  ____ MB

      Contact your hardware representative to order the required
      additional main storage and schedule its installation.




  Press Enter to return to the Dedicated Service Tools display.


   F3=Exit            F12=Cancel
```

If the Installation Preparation PTFs for V4R2M0 Software have not been applied, the following display appears:

```
              Install Licensed Internal Code - Error

Error:
    The load source disk unit is not in the correct layout to
    allow the installation to proceed.  You need a Licensed
    Internal Code fix.

    If your system is at V3R6, load and apply MF14114 or any
    superseding program temporary fix (PTFs).  If your
    system is at V3R7, load and apply MF14115 or any
    superseding PTFs.  Follow the special instructions
    included with the fix.




    Press Enter to return to the Dedicated Service Tools display.


    F3=Exit              F12=Cancel
```

If you see either display, do the following:

___ 1. Press the power off button on the system control panel _twice_. This causes the system to immediately power off.

> **Note:** If you were attempting to perform an automatic installation, you need to use the control panel to set the mode to **Manual** before you can power down the system.

___ 2. After the system is powered down, use the control panel to set the IPL type to **B** and the mode to **Normal**.

___ 3. Press the power off button to power on the system. This will cause the system to IPL.

When the IPL completes, the system is running on the same release of OS/400 that you had before you attempted the installation.

___ 4. Resolve the system requirement that is in error before you attempt to install V4R2M0 again. Use the information in "System Requirements for V4R2M0" on page 3-2 to ensure that the system has adequate main storage and disk capacity. When these requirements are met, use "Program Temporary Fixes Required Before Installing V4R2M0 Software" on page 3-10 to install the V4R2M0 preparation PTFs if they have not been installed.

Starting Point for Automatic Installation Recovery

If you used the automatic installation process in Chapter 4, " Replacing a Release Using Automatic Installation" on page 4-1, use the following table to determine where the failure occurred and the appropriate recovery section. After you have the problem corrected, go to "Starting the Automatic Installation Process Again" on page A-14 to start the installation process again.

Notes:

1. To use automatic installation recovery, you must use the same version, release, and modification level distribution media that caused the failure.

2. If you have a failure during the automatic installation process, and sign on to do problem analysis, your system will be running under the QSYSSBSD controlling subsystem. When your system completes an IPL after the installation has completed successfully, your controlling subsystem is active again.

Table A-3. Where to start recovery for the automatic installation process

Finding the Problem (Symptom)	Where to Start
SRC B608 1105	Go to step 4 on page A-6 of Licensed Internal Code Recovery.
SRCs other than B900 xxxx	Go to "Licensed Internal Code Recovery."
SRCs starting with B900 xxxx	Go to "Operating System Recovery" on page A-7.
Messages starting with CPZ20xx	Go to "Operating System Recovery" on page A-7.
Message indicating automatic installation not complete	Go to "Licensed Programs, PTFs, and Secondary Language Recovery" on page A-10.

Licensed Internal Code Recovery

___ 1. If the Install Licensed Internal Code - Error display appears, use Table A-4 on page A-6 to determine the action to take for the reason code displayed.

```
              Install Licensed Internal Code - Error

   Error:
       An unrecoverable error occurred.  The error reason code
       is listed below.  This install can not be completed.
       Give the reason code to you service representative.
       Do not re-IPL the system until your service representative
       can retrieve any needed information.


       Error reason code . . . . . . . . . . . . :  __




       Press Enter to return to the Dedicated Service Tools display.
```

Table A-4. Return code for Licensed Internal Code - Error display

Reason Code	Action
51 52 53 54	If you are using CD-ROM, clean the media. If you are using tape, clean the tape device. Then retry the installation.
All others	Retry the installation. If the installation fails again with the same reason code, retry the installation with another set of media. If the same failure occurs, contact your service representative.

___ 2. For Licensed Internal Code SRCs, go to one of the following manuals.

- If the SRC is of the form A6xx 6xxx, refer to the appendix on Licensed Internal Code SRCs in the *Backup and Recovery*, SC41-5304, book.

- If any SRC other than an A6xx 6xxx appears, go to the starting point for problem handling in the *Basic System Operation, Administration, and Problem Handling*, SC41-5206, book and follow the instructions.

___ 3. Find the SRC that is shown on the control panel display and take the appropriate recovery action.

Note: If the SRC indicates that you have a media error, thoroughly clean the installation device. If you are using CD-ROM, clean the media. If you are using tape, clean the tape head and tape path thoroughly. Then continue with the next step. If you receive another error message that indicates a media error on the same media, get another set of media to complete the installation process.

___ 4. You are trying to do one of the following:

- Install from CD-ROM when an alternate installation device is enabled.

- Use an alternate installation device which is not enabled.

Go to"How to Set Up an Alternate Installation Device" on page H-1 and "How to Disable an Alternate Installation Device" on page H-4 and perform the appropriate procedure.

Note: If you cannot find the address information, or the configuration has changed and the address is wrong, you must determine the address by physical inspection. This inspection can be difficult and may vary depending on your system model and the specific configuration of your IO buses. For this reason, IBM recommends that you call your next support level for help in determining the addresses for the alternate installation device. A service agreement may be required for this type of assistance.

___ 5. Start the installation process again.

If you were using the automatic installation process, go to "Starting the Automatic Installation Process Again" on page A-14 to start the installation process again. You <u>must</u> load the first volume in the installation device to start the automatic recovery installation process.

If you were using the manual installation process, go to "Starting the Manual Installation Process Again" on page A-15 to start the installation process again.

Operating System Recovery

___ 1. If you see the following message, you are trying to install the operating system that is intended for a Model 150 on another model AS/400. If you are installing from a SAVSYS tape, the tape was created on a Model 150 AS/400.

```
                               Message

Message ID  . . . . . . :   CPZ2015      Type . . . . . . . :   Information
From program  . . . . . :   _____     Severity . . . . . :   99

Message . . . . . :   The operating system on the installation
  media that is in use is not authorized for this model of AS/400.

Cause . . . . . . :   The content of the installation media that is
  in use will function only on designated models of IBM AS/400
  Advanced Series business computing systems.

Recovery  . . . . :   Refer to the recovery appendix of the Software
  Installation book.




Press Enter to end installing.

```

You need to use V4R2M0 installation media that is not intended for Model 150 AS/400s. Contact your software service provider if you do not have this media. Then continue with step 3 by using the appropriate media.

___ 2. If a problem occurs when you are replacing or installing the operating system, an SRC appears on the control panel display, or an error message appears on the console. Use Table A-5 on page A-8 and Table A-6 on page A-8 to determine the cause of the problem and take the action indicated. Then continue with step 3.

___ 3. If you were using the automatic installation process, start the process again using the instructions in "Starting the Automatic Installation Process Again" on page A-14.

___ 4. Start the manual installation again using the following steps.

___ a. Load the first volume into the installation device for the alternate IPL. Prepare the device.

___ b. Use the control panel to select function **03** and set the mode to **Manual**.

Press the Enter key on the control panel.

___ c. Return to the task that failed and start the task again at the step where the IPL or Install the System display appears on the console.

___ d. After you respond to the Confirm Install of Operating System display you should see the Select a Language Group display. Verify that the language feature that is displayed matches the language feature for the OS/400 installation media that you are using.

Table A-5. Operating system problems	
Symptom	**Action**
B900 3000 through B900 308F	The SRCs in this range are displayed by the installation of the operating system process. Fill out the problem summary form in the appendix of the *Basic System Operation, Administration, and Problem Handling*, SC41-5206, book. Go to the SRC table in the *Basic System Operation, Administration, and Problem Handling* book and take the appropriate recovery action. Then return to this manual to start the installation process again.
B900 3100 through B900 37FF	The SRCs in this range are displayed by the start operating system process. Go to the chapter on starting point for system problem handling in the *Basic System Operation, Administration, and Problem Handling*, SC41-5206, book. Take the appropriate recovery action.
Other SRCs not listed in this table.	If the SRC is not in the range of SRCs listed in this table, go to the chapter on starting point for system problem handling in the *Basic System Operation, Administration, and Problem Handling*, SC41-5206, book.

The following table contains some of the failure messages that could occur during the installation of the operating system.

Table A-6 (Page 1 of 3). Error messages	
Message	**Description**
CPA3DDF CPF3DDF	**Cause:** If you see this message, check if you have a console device type 3488 or 3489 and Autodisconnect set to *YES in the display. The autodisconnect timer may have expired during the automatic installation process. **Recovery:** Set the Autodisconnect value to *NO and begin the automatic installation process again.

Table A-6 (Page 2 of 3). Error messages

Message	Description
CPZ2003 CPZ2004 CPZ2005 CPZ2010 CPZ2011	**Cause:** The installation process received a tape or CD-ROM error code. **Recovery for Error Code Ex10 0019 or Ex10 001A:** 1. Clean the media. • If you are using tape, clean the tape head and tape path thoroughly. • If you are using CD-ROM, clean the CD-ROM disc by using a clean lint free cloth to gently wipe the disc from the center to the outside of the disc. 2. Try the installation process again. • If you were using the automatic installation process, go to "Starting the Automatic Installation Process Again" on page A-14 to start the installation process again. • If you were using the manual installation process, go to step 4 on page A-7 to start the installation process again. If you receive another error message indicating a media error on the same installation media, get another set of installation media to complete the installation process. **Recovery for all other error codes:** Contact your service representative
CPZ2015	**Cause:** Refer to step 1 on page A-7.
CPZ2022	**Cause:** The restore options read from the installation profile are not valid. **Note:** If you create distribution media and specify *NONE for the installation profile name, the media will contain an empty installation profile. These media cannot be used to perform an automatic installation. **Recovery:** Record the recovery information for the error message. Try to install the operating system again using the manual installation process. You can also try to use the automatic installation process with a different set of media. If the problem occurs again during an automatic installation process, contact your next level of service.
CPZ2023	**Cause:** The installation options read from the installation profile are not compatible with the current state of the system. The installation requested by the options read from the installation profile cannot be performed. For example, this condition can occur when an installation is requested that does not load program objects and the QSYS library is damaged. **Recovery:** Try to install the operating system again using the manual installation process.

Table A-6 (Page 3 of 3). Error messages	
Message	**Description**
CPZ20xx	**Cause:** These termination messages are displayed by the installation of the operating system process. Print the display if possible; otherwise, copy all of the information.
	Recovery: Read the instructions for the messages that are displayed on the console. Perform the recovery action described in the message to correct the problem and then try the installation process again.
	Note: A short time after you press the Enter key, a B900 xxxx SRC is displayed. The SRC table in the *Basic System Operation, Administration, and Problem Handling*, SC41-5206, book contains additional information.

Licensed Programs, PTFs, and Secondary Language Recovery

___ 1. Type GO LICPGM on any command line.

___ 2. Type 50 (Display log for messages) on the Work with Licensed Programs menu. Press the Enter key.

___ 3. The Display Install History display appears. Press the Enter key.

___ 4. The Display History Log Contents display appears. Look at the messages to determine the installation status of the licensed programs and PTFs. The messages show what part of the licensed program installation function has failed. Areas where the failure could have occurred are:

- Installing the IBM-supplied libraries

- Installing the licensed programs

- Installing PTFs

- Installing a secondary language

- Initialization process

If a problem, such as a power failure, occurs during a process in the preceding list, you could see a message that the process has started. An example of such a message is Licensed program installation process started. However, the failed or completed status message may not display.

___ 5. There should be one or more messages that indicate which IBM-supplied library or licensed program failed. Be sure to look at all of the messages. Use F10 (Display all) to see all messages.

___ 6. To see the online help information, move the cursor to the message and press the Help key. Look at the online help information for the error message to get the message identifier and more information about the cause and recovery for the failure. Go to Table A-7 on page A-12 for a list of some possible messages you could see.

___ 7. A copy of the job log has been spooled to an output queue.

Note: To locate and display the job log, enter one of the following Work with Spool File (WRKSPLF) commands:

- For the automatic installation process, type the following command: WRKSPLF SELECT(QLPAUTO) ASTLVL(*INTERMED) and press the Enter key.

- For the manual installation process, type the following command: `WRKSPLF SELECT(QSECOFR) ASTLVL(*INTERMED)` and press the Enter key.

- For the PTF process, type the following command: `WRKSPLF SELECT(QSYS *ALL *ALL SCPF) ASTLVL(*INTERMED)` and press the Enter key.

If the display shows More..., on the bottom of the display, page down (Roll up) until Bottom... appears. Select option 5 (5=Display) on the last entry.

Note: Ignore any error messages listed in the nnnnnn/QSYS/QLPINSTALL job log. These messages are not installation error messages.

___ 8. Scan the job log for error messages. Determine the cause and recovery for each error message in the job log. Go to Table A-7 on page A-12 for a list of some possible messages you could see.

Note: Be sure to scan the entire job log. There could be more than one failure. Scan the job log by using the message ID. Remember that the message ID is case-sensitive.

___ 9. Select option 10 (Display installed licensed programs) on the Work with Licensed Programs display. The Installed Status column indicates which licensed programs and optional parts are installed. The Installed Status column also indicates if each licensed program installed successfully and if it is compatible with the installed operating system. The following values are possible:

*COMPATIBLE The licensed program or optional part is installed, and it is at a level that is compatible with the installed level of the operating system.

*BACKLEVEL The licensed program or optional part is installed, but the release level is not compatible with the installed level of the operating system.

(blank) If the column is blank, the licensed program or optional part is not installed.

*BKLVLBASE The option is successfully installed on the system, but the base product is not compatible with the release level of this option.

*BKLVLOPT The option is successfully installed on the system, but is not compatible with the release level of the associated base product

*ERROR An error occurred while installing that licensed program.

You can press the F11 key to see a view of the display that shows the Installed Release column. The version, release, and modification level value appears for licensed programs that are either installed compatibly or are installed at a back level. Page down (Roll up) through all of the displays to see the status of your licensed programs.

Check to see if the licensed program that you are installing had a different language feature code than your primary language feature code. If it does, the licensed program is flagged as *ERROR, or the column is blank. The language objects for the licensed program are installed in a secondary language library. Obtain distribution media with the correct primary language

feature code. Press the F3 key to return to the Work with Licensed Programs menu.

Note: The Display Installed Licensed Programs display lists installed licensed programs and optional parts that were available from IBM at the time the installed operating system became available. Installed IBM licensed programs or optional parts released as new products after the release of an operating system or modification level <u>are not</u> shown. Use the Display Software Resources (DSPSFWRSC) command to see a list of independently shipped programs and optional parts.

___ 10. After you determine the cause of the error and complete the recommended recovery action, resume the installation process. If you were using the automatic installation process, go to"Starting the Automatic Installation Process Again" on page A-14. If you were using the manual installation process, go to "Starting the Manual Installation Process Again" on page A-15.

The following table contains some of the error messages with possible causes of the errors. Look at the messages on your system to determine the exact cause and recovery.

Table A-7 (Page 1 of 3). Error messages	
Message	**Description**
CPA3DD2 CPA3DD3	**Cause:** The system could not identify the last volume loaded in the device. **Recovery:** Open the device door, verify that correct volume is loaded, and close the device door.
CPA3DDD CPA3DDF	**Cause:** The installation process is expecting more licensed programs to be loaded. **Recovery:** If you have more media that contains licensed programs, load the volume and type a G to continue the installation process. If you do not have any more volumes that contain licensed programs, type an X to indicate that there is no more media to load. When the installation process completes, use option 50 of the LICPGM menu to verify messages in the installation history log.
CPA3DE1	**Cause:** The volume loaded does not contain licensed programs that are supported through the Work with Licensed Programs (LICPGM) menu. **Recovery:** Load a CD-ROM that contains licensed programs.
CPA3DE1	**Cause:** The volume loaded does not contain licensed programs that are supported through the Work with Licensed Programs (LICPGM) menu. **Recovery:** Load a CD-ROM that contains licensed programs.
CPD32B0 reason code 7 CPF327E reason code 3	**Cause:** 5769SS1 Extended Base Support failed to install. **Recovery:** Use the Reclaim Storage (RCLSTG) command and try to install option 1 again.

Table A-7 (Page 2 of 3). Error messages	
Message	**Description**
CPD3713	**Cause:** The licensed program is currently installed on your system and was not found on the distribution media. **Recovery:** Get another set of distribution media that contains licensed programs and start the process again or delete the licensed program from your system if you no longer need it.
CPD3D82 CPF3D8F	**Cause:** These messages could be shown if you did not end all of the subsystems before you started the installation process. **Recovery:** End all subsystems and start installing the licensed programs again.
CPF371C CPF3731	**Cause:** Look at the messages previously listed in the job log to determine the failure. **Recovery:** Take the recommended recovery action. **Note:** If you received one of these messages, the installation process ended before you completed installing the licensed programs.
CPF371D CPF371E	**Cause:** These messages could be shown if the wrong volume is loaded. The online information of the message can help determine the cause. **Recovery:** Load the correct volume and start the process again.
CPF3D96	**Cause:** Errors occurred during the restoring process for a licensed program. **Recovery:** Take the recommended recovery action explained in the online help information. If you receive these messages, the installation continued with the other licensed programs if the problem was not too severe. However, problems with the tape or system storage level would have caused the installation to end.
CPF3D80 CPF3D81 CPF3D84 CPF3D8B CPF3D8C CPF3D90 CPF3D91	**Cause:** Errors occurred when restoring a licensed program or PTFs. **Recovery:**Use the Display Job (DSPJOB) command. Enter DSPJOB nnnnnn/QLPINSTALL/QBCHINST or DSPJOB nnnnnn/QLPINSTALL/QLPINSTALL where nnnnnn is the job number of the job log in the message help of the error message. Select option 4 on the Display Job display to display spooled files. Select option 5 on the Display Job Spooled Files display to determine the cause of the failure. Correct the error and start the installation process again. Ignore error messages in the nnnnnn/QSYS/QLPINSTALL job log. These messages are not installation error messages.
CPF3D82 CPF3D83	**Cause:** There is not enough auxiliary storage to install the licensed programs you selected. **Recovery:** Go to Appendix C, "Licensed Program Information" on page C-1 to determine the space requirements for each licensed program you want to install. Obtain additional auxiliary storage and start the installation process again.

Table A-7 (Page 3 of 3). Error messages	
Message	**Description**
CPF3D85 CPF3D86 CPF3D8E	**Cause:** An object or PTF is not installed because it requires successful installation of a licensed program. That licensed program may not be installed or may be installed at the wrong release level.
	Recovery: See the previous messages in the job log to determine if the licensed program is installed successfully. Correct any errors or install the required licensed program and start the installation process again.
CPF3DD3	**Cause:** The device description could not be found or could not be used.
	Recovery: Create a device description for the installation device (optical or tape). Use the CRTOPTDEV command to create a device description for the optical device that supports the CD-ROM media class. Use the CRTDEVTAP command to create a device description for the tape device. Then start the process again.
CPI3D82 CPI3D84 CPI3D85	**Cause:** A licensed program included on the distribution media was not currently installed on the system.
	Recovery: Use the online information of the message for recovery help. Use Chapter 9, " Installing Additional Licensed Programs" on page 9-1 to install the licensed program.
Media Error Messages	**Cause:** A media error occurred during the installation process.
	Recovery: If you are using CD-ROM, clean the disc, then follow the recovery actions that are indicated for this message. If you are using tape, clean the tape head and tape path thoroughly. If you receive another error message indicating a media error on the same tape, get another set of tapes to complete the installation process.

Starting the Automatic Installation Process Again

Use one of the three methods in the following table to start an automatic installation again.

Note: You <u>must</u> load the first volume in the installation device to start the automatic installation process again if you use Method 1 or Method 2.

Table A-8 (Page 1 of 2). Starting the Automatic Installation Process Again	
Method	**Instructions**
Method 1: Licensed Internal Code	**When to Use:** This method should be used if the Licensed Internal Code needs to be installed again. If you are sure the Licensed Internal Code has been successfully installed, you do not need to use this method. No messages indicate that the Licensed Internal Code has been installed successfully; however, messages do indicate that the operating system has been installed successfully. If the operating system has been installed successfully, so has the Licensed Internal Code.
	How to Use: To start an installation process again, use the instructions in Chapter 4, Replacing a Release Using Automatic Installation of this manual. Be sure to follow the instructions in the task to complete the installation procedure (operating system and licensed programs).

Table A-8 (Page 2 of 2). Starting the Automatic Installation Process Again

Method	Instructions
Method 2: Operating System	**When to Use:** If you are sure the Licensed Internal Code has been installed successfully, use Method 2 to install the operating system again. Method 2 is faster than using Method 1 because the Licensed Internal Code does not need to be installed again. No messages indicate that the Licensed Internal Code has been installed successfully; however, messages do indicate that the operating system has been installed successfully. If the operating system has been installed successfully, so has the Licensed Internal Code. **How to Use:** Do the following steps: 1. Use the control panel to the set the mode selector to **Manual** and the function selected is **03** (Start IPL). 2. Press the Enter button on the control panel. 3. Load the first volume in the installation device. 4. When the IPL or Install the System display is shown, set the mode selector on the control panel to **Normal**. 5. Select option 4 (Perform an automatic install of the operating system) on the IPL or Install the System display. 6. Load additional media volumes that the system prompts you to load.
Method 3: Licensed Programs	**When to Use:** Use the Work with Licensed Programs display to install only the licensed programs that failed to install. Make sure the Licensed Internal Code and the operating system are successfully installed. **How to Use:** When you use this method, determine which products failed to install and then continue with one of the following instructions: • Use option 11 (Install licensed programs) on the Work with Licensed Programs display. Refer to Chapter 9, " Installing Additional Licensed Programs" on page 9-1 to install the licensed programs from a list. • Use option 1 (Install all) on the Work with Licensed Programs display. Go to "Using Option 1. Install All" on page B-1 for information to install the licensed programs using option 1. Refer to the information in Starting the Automatic Installation Process Again, methods 1 and 2, for details.

Starting the Manual Installation Process Again

Use this section to start the manual installation process again when recovering from an error while installing licensed programs, PTFs, or secondary languages. One of the four following methods can be used to start a manual installation process. Your Licensed Internal Code and the operating system do **not** need to be installed again.

The following table contains specific information when and how to use each method.

Table A-9. Starting the Manual Installation Process Again

Method	Instructions
Method 1	**When to Use:** This method should be used if several licensed programs are not installed.
	How to Use: To start an installation process again using method 1, use option 1 (Install all) on the Work with Licensed Programs display. Refer to "Using Option 1. Install All" on page B-1 to install all of the licensed programs.
Method 2	**When to Use:** This method should be used if one or more licensed programs are not installed and you want to install only those licensed programs or optional parts that failed.
	How to Use: To start the installation of only those licensed programs or optional parts that failed, use the instructions in Chapter 9, " Installing Additional Licensed Programs" on page 9-1. Complete all of the instructions in that part.
Method 3	**When to Use:** This method can be used if only one or two licensed programs had PTFs that fail to install. Consider installing PTFs for only those licensed programs that failed.
	How to Use: To install PTFs for selected licensed programs, use the GO PTF menu and select option 7.
Method 4	**When to Use:** This method should be used if several licensed programs had PTFs that fail to install. Consider installing the entire cumulative PTF package again.
	How to Use: To install the cumulative PTF package, use the instructions in the *AS/400 System PTF Shipping Information Letter*

INZSYS Recovery Information

The installation of V4R2M0 is complete when the licensed program portion of the installation process completes and the Initialize System (INZSYS) process successfully completes. The installation process must end before the INZSYS process is automatically started. This process is initiated during each IPL after you install the QUSRSYS library until the INZSYS process has successfully completed. The INZSYS process will not be initiated during the IPL if the system is in the restricted state. If the INZSYS process is initiated during the IPL, it runs in the SCPF system job.

Note: If you perform an IPL before installing a cumulative PTF package, make sure that the INZSYS process has completed before you start to install the PTF package. Using any PTF commands before INZSYS completes causes the INZSYS to fail.

The completion time for INZSYS varies. Allow sufficient time for this process to complete.

When you select option 50 (Display log for messages) on the Work with Licensed Programs menu, you should see the message Initialize System (INZSYS) started. Later, you should see the message Initialize System (INZSYS) processing completed successfully. If you do not see the completed message, or if the message Initialize System (INZSYS) failed appears, look at the job log to determine the problem. Use the information in the job log to correct the problem. Then start the conversion process again.

To start the conversion process yourself, you can either use a batch job or enter INZSYS on the command line. If you use a batch job, you can use your work station while the process is running, but the system cannot be in restricted state.

Batch jobs do not run when the system is in a restricted state. If you enter INZSYS from a command line, we recommend that the system be in restricted state. Setting the system to restricted state will reduce the time that is needed for the INZSYS process to complete. Before you use the INZSYS command, set the mode selection to **Normal** and set the IPL type to **B** (or the IPL type that you use for everyday operation).

To set the system to restricted state, do the following:

1. Enter the command:

   CHGMSGQ QSYSOPR *BREAK SEV(60)

2. A message display could be shown.

   Press the Enter key.

   Note: Ignore the messages that are shown.

3. To put the system in a restricted state, enter the End Subsystem (ENDSBS) command:

   ENDSBS *ALL *IMMED

   The message System ended to restricted condition appears. Press the Enter key to continue.

To start the conversion process again, do the following:

1. Enter the command:

   INZSYS

2. Use option 50 (Display log for messages) on the Work with Licensed Programs menu to make sure that the process completes successfully.

Do not attempt to save your system until the INZSYS process has completed successfully.

Starting from a Power Off Condition

You are here because your system unit power is off. Perform the following steps to power on the system and begin a normal installation. When you complete this section, you should return to the appropriate step of your original installation procedures.

___ 1. Use the control panel to select function **02** and press the Enter button. Then select IPL type **D**.

___ 2. Set the mode selector on the control panel to the appropriate position.

   - If you were directed here from Chapter 4, Replacing a Release Using Automatic Installation, set the mode selector to **Normal**.

   - If you were directed here from Chapter 5, Replacing a Release Using Manual Installation, verify that the mode selector is in the **Manual** position.

___ 3. Press Enter on the control panel.

___ 4. Make sure that the power is on for the display station being used as the console.

___ 5. Verify that the switch is in the On position if the installation device used for the alternate initial program load (IPL) has separate on and off switches.

___ 6. Load the media and make the device ready.

___ 7. **Optional:** If you have a 1/4-inch cartridge tape, load the first tape volume into the tape device for the alternate IPL. Close the door on the tape device.

___ 8. Turn the power on for the system by pushing the power switch <u>once</u>.

___ 9. If you could not load your media in step 7, load the first volume into the tape or CD-ROM device for the alternate IPL now.

___ 10. You are ready to return to your original installation procedures.

- If you are performing an automatic installation, continue with Step 7 on page 4-2.

- If you are performing a manual installation, continue with Step 11 on page 5-3.

Appendix B. Options on Work with Licensed Programs Menu

This appendix contains information about the options on the Work with Licensed Programs menu. Use this information to determine when and how you can use these options. For each display, you can use the Help key for more information about the display.

Note: The new option 5, Prepare for Install, is described in "Prepare for Install-Overview" on page 1-7.

Manual Install Options

Use the Install all option on the Work with Licensed Programs menu if you want to install all of the licensed programs on the distribution media.

Using Option 1. Install All

Option 1 (Install all) on the Work with Licensed Programs menu allows you to install licensed programs and optional parts of the licensed programs from distribution media. Secondary languages on a distribution media can also be installed with this option.

```
Work with Licensed Programs

1. Install all

        Manual Install

        Install option
        Tape device
        Automatic IPL

                            RV2D415-1
```
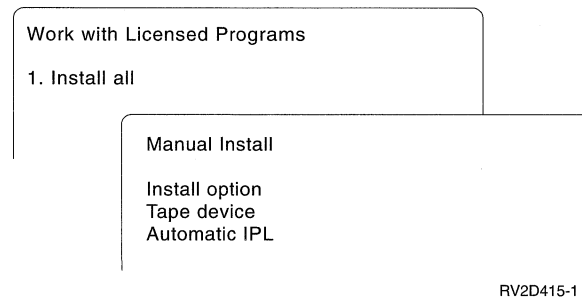
The Manual Install display allows you to make choices for the prompts in the following list. Use the Help key for more information about each prompt.

1. Install option

   This option determines what types of licensed programs and optional parts are installed from the distribution media. You can choose to install only new releases of products that already exist on your system, install all products, or install only new products.

   Notes:

   a. The *Install option* does not apply to the QGPL and QUSRSYS libraries. QGPL and QUSRSYS libraries always install if they are not at the new release level. For all *Install option* choices, only new objects are installed in the QGPL and QUSRSYS libraries.

   b. To complete the installation successfully, the installation media must contain all renewed products that are currently installed on your system. The installation media may contain products whose version, release, and modification level is earlier than that of the new operating system release. (The products did not renew at the same time as the operating system.) If

B-1

the same level of an installed product exists on the installation media, the media copy is not installed. This preserves any program temporary fixes (PTFs) that are applied to the product that is installed on your system.

c. New licensed programs or new optional parts of licensed programs that become available independently of an operating system release or modification level are not installed with this process. Use the Restore Licensed Program (RSTLICPGM) command to install products with these characteristics.

2. Installation Device

The examples in this manual use OPT01 for the name of the installation device. Go to "Determining Installation Device Names" on page 3-35 for more information about the installation device naming convention.

3. Automatic IPL

This option determines if the system will automatically IPL when the installation process has completed successfully.

Displaying, Installing, Deleting, and Saving from a List

This section contains information about displaying, installing, deleting, and saving licensed programs from a list.

Using Option 10. Display Installed Licensed Programs

After an installation process has completed, it is often necessary to determine if a licensed program is installed successfully on your system. To do this, select option 10 (Display installed licensed programs) on the Work with Licensed Programs menu. The Display Installed Licensed Programs display shows the licensed programs, optional parts, and IBM-supplied user libraries that are installed on your system.

Note: You may have other installed licensed programs that are not shown on this display. New licensed programs or new optional parts that are initially shipped independently of an operating system release or modification level are not shown on this display. If you installed licensed programs with this characteristic, use the Display Software Resources (DSPSFWRSC) command to see a list that includes them.

The Installed Status column indicates whether or not the licensed program is successfully installed. The value *COMPATIBLE appears for a successfully installed licensed program that is compatible with the installed release level of the operating system. If the value *BACKLEVEL appears, the licensed program is successfully installed. However, its version, release, or modification level is not valid for the currently installed level of the operating system. If the value *ERROR appears, the licensed program is not successfully installed or is only partially installed. To determine the cause of the problem, use the recovery procedures in Appendix A, Recovery Procedures to install the licensed program again.

You can use the F11 key to view the Installed Release column. This column shows the release and modification level of each installed licensed program. There is also a third view that shows the number of the optional part of each licensed program.

Using Option 11. Install Licensed Programs

When you select option 11 (Install licensed programs) on the Work with Licensed Programs display, you see a list of licensed programs and optional parts of licensed programs. The listed items are the licensed programs and optional parts that were supported by the LICPGM installation processes at the time your currently installed operating system became available.

You can use this list to select licensed programs and optional parts to install on your system. You can also use this list to install a licensed program that did not successfully install during a previous installation process.

Note: New licensed programs or new optional parts of licensed programs that become available independently of an operating system release or modification level are not installed with this process. Use the Restore Licensed Program (RSTLICPGM) command to install products with this characteristic.

```
Work with Licensed Programs

11. Install licensed programs

   Install Licensed Programs

      Confirm Install of Licensed Programs

         Install Options
```

RV3D003-0
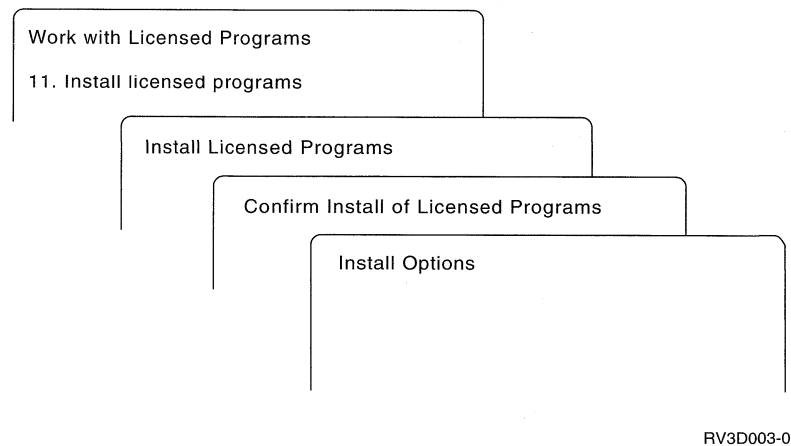
To install one or more licensed programs from the list, type a 1 in the option column next to the licensed programs and any optional parts that you want to install. The media description report shows a list of the licensed programs that are on the distribution media.

The Confirm Licensed Programs to Install display shows which licensed programs you selected to install. If you do not need to make any changes, press the Enter key to confirm your choices.

Fill in the choices on the Install Options display. The choices are listed below. Use the Help key for more information about each prompt on this display.

1. Installation Device

   The examples in this manual use OPT01 for the name of the installation device. Go to "Determining Installation Device Names" on page 3-35 for more information about the installation device naming convention.

2. Objects to install

   This option allows you to choose to install both programs and language objects, only programs, or only language objects.

3. Automatic IPL

   This option determines if the system will automatically IPL when the installation process has completed successfully.

When the licensed programs are installed, the Work with Licensed Programs menu or the Sign On display appears again. To verify that all of the licensed programs are installed successfully, use option 50 (Display log for messages). More information about that option is available in "Using Option 50. Display Log for Messages" on page B-7. If an error occurs, you will see the message Work with licensed program function not complete, on the bottom of the Work with Licensed Programs display. Go to Appendix A, Recovery Procedures to determine the problem.

If you install a licensed program or optional part again, you must also install the PTFs for that licensed program again.

Using Option 12. Delete Licensed Programs

Select option 12 on the Work with Licensed Programs menu to delete a licensed program or optional part of a licensed program that is installed on your system. When you select this option, the Delete Licensed Programs display appears. The list shows the licensed programs and optional parts that are installed on your system. Use this list to select licensed programs or optional parts to delete.

Note: You may have other installed licensed programs and optional parts that do not appear in this list. Refer to the notes about deleting licensed programs on "Notes About Deleting Licensed Programs" on page C-8 for more information.

If you delete a licensed program that has optional parts, all of the optional parts for that licensed program are also deleted. If you delete only an optional part, the base program and other optional parts remain on your system. This option deletes all objects that are associated with the licensed program or optional part you select.

```
Work with Licensed Programs

12. Delete licensed programs

     Delete Licensed Programs

          Confirm Delete of Licensed Programs


                                        RSLU164-3
```
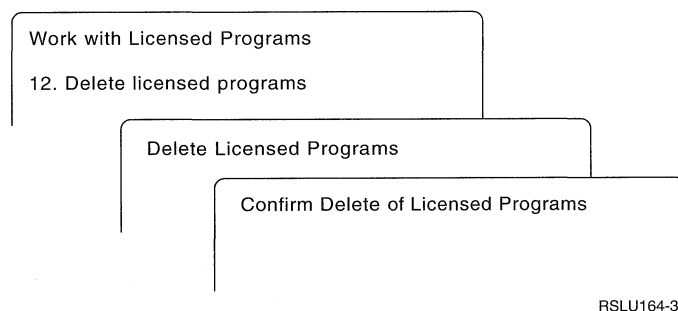
Type a 4 in the *Option* column next to the licensed program or optional part of a licensed program that you want to delete from your system.

The Confirm Delete of Licensed Programs display shows you which licensed programs or optional parts you selected to delete. Press the Enter key to delete the licensed programs or optional parts.

For more information, refer to "Notes About Deleting Licensed Programs" on page C-8.

Using Option 13. Save Licensed Programs

Select option 13 on the Work with Licensed Programs menu to save one or more licensed programs for redistribution.

The Save Licensed Programs display lists the licensed programs and optional parts that are installed on your system that were shipped with an operating system release or modification level. Use this list to select licensed programs or optional parts to save. Type a 1 in the option column on the Save Licensed Programs display next to the licensed programs that you want to save.

```
Work with Licensed Programs

13. Save licensed programs

     Save Licensed Programs

          Save Options


                                          RSLU165-3
```
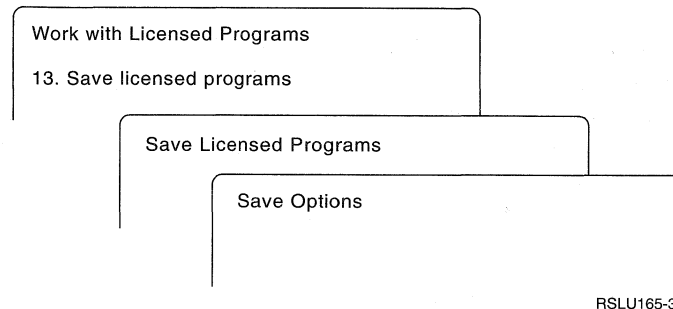
Fill in the information on the Save Options display by using the following information.

Use the Help key for more information for each of the prompts on the display

1. Tape device

   The examples in this manual use TAP01 for the name of the tape device. Go to "Determining Installation Device Names" on page 3-35 for more information about the tape device naming convention.

2. Sequence number

   Enter your choice for the sequence number to be used for the save process.

3. End of tape option

   This option determines the positioning operation that is done automatically on the tape volume when the save operation is completed. In the case of a multiple-volume save operation, this parameter applies to the last volume only. All other volumes are rewound and unloaded when the end of the tape is reached.

Notes:

1. Licensed programs and optional parts that are shipped independently of an operating system release or modification level are not displayed. Use the Save Licensed Program (SAVLICPGM) command to save independently shipped IBM licensed programs and optional parts.

2. This option should not be used for backup and recovery. It is only for redistribution. More information about redistribution is available in the *Central Site Distribution*, SC41-5308 book. Refer to the *Backup and Recovery*, SC41-5304 book for information on saving your system.

Secondary Languages Options

This section contains information about displaying, installing, and deleting secondary languages on your system.

Using Option 20. Display Secondary Languages

When you select option 20 on the Work with Licensed Programs menu, the Display Installed Secondary Languages display appears.

```
Work with Licensed Programs

20. Display installed secondary languages

        Display Installed Secondary Languages



                                      RSLU166-2
```
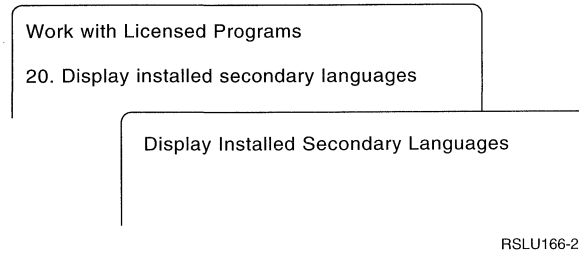
This display shows the primary language and the description of the primary language that is installed on your system. It also shows the secondary languages, the library where each language is, and the release level of the languages that are installed on your system.

Using Option 21. Install Secondary Languages

Use option 21 to selectively install a secondary language for the licensed programs that are installed on your system. The media description report contains the secondary language feature number and the volume identifier for the secondary language media.

```
Work with Licensed Programs

21. Install secondary languages

     Install Secondary Languages

        Confirm Install of Secondary Languages



                                      RSLU170-1
```
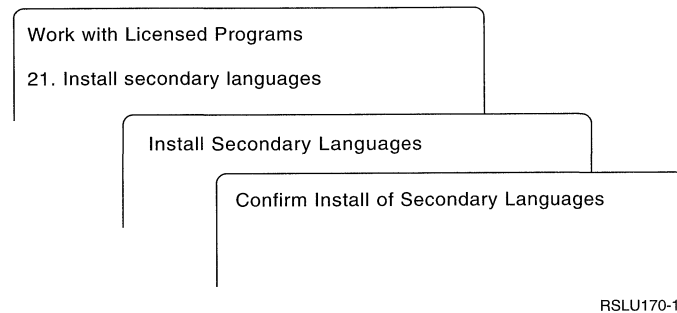
Type a 1 by the language you want to install and press the Enter key. Only one secondary language can be installed at a time. The Confirm Install of Secondary Language display shows

- which language you selected to install,

- the library where it will be installed,

- and the release level of the language.

Using Option 22. Delete Secondary Languages

Use option 22 to delete secondary languages you no longer want installed on your system.

```
┌─────────────────────────────────────────────────┐
│ Work with Licensed Programs                      │
│                                                  │
│ 22. Delete secondary languages                   │
│    ┌──────────────────────────────────────────┐ │
│    │ Delete Secondary Languages               │ │
│    │    ┌────────────────────────────────────┐│ │
│    │    │ Confirm Delete of Secondary Languages││
│    │    │                                    ││
│    │    │                                    ││
│    │    │                                    ││
│    │    │                          RSLU171-0 ││
│    │    └────────────────────────────────────┘│
└────┴──────────────────────────────────────────┴─┘
```
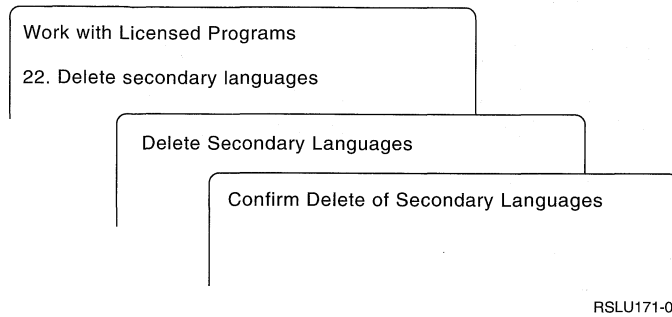
Type a 4 to select the secondary language you want to delete and press the Enter key.

More information about secondary language libraries in user profiles is available in the *National Language Support* book, SC41-5101 .

Redistribution

```
┌─────────────────────────────────────────────────┐
│ Work with Licensed Programs                      │
│                                                  │
│ 40. Create a distribution tape                   │
│                                                  │
│ 41. Work with installation profiles              │
│                                                  │
│                          RSLU174-1               │
└─────────────────────────────────────────────────┘
```
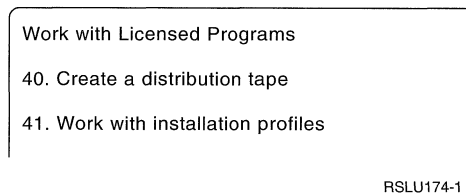
For the redistribution options, refer to the *Central Site Distribution*, SC41-5308 , book for complete information to create a distribution tape and installation profiles.

Completion Status

When you install licensed programs, a secondary language, or PTFs, make sure that the installation process has successfully completed to avoid problems when you begin using the system.

Using Option 50. Display Log for Messages

Selecting option 50 shows the Display Install History display. Press the Enter key to view the installation start and completion messages on the Display History Log Contents display. This option displays specific messages that are shown in the history log.

```
┌─────────────────────────────────────────┐
│ Work with Licensed Programs             │
│                                         │
│ 50. Display Log for Messages            │
│   ┌───────────────────────────────────────┐
│   │ Display Install History              │
│   │   ┌─────────────────────────────────────┐
│   │   │ Display History Log Content        │
│   │   │                                    │
│   │   │                                    │
│   │   │                       RV2D414-0    │
```
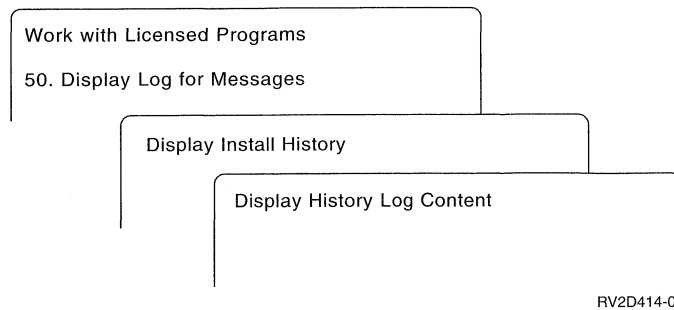
Each part of the installation process (such as licensed programs, PTFs, Initialize System (INZSYS)) should have a completion message. If you do not see the message on the display, wait a few minutes and select option 50 again. If you still do not see a completion message, use the recovery procedures in Appendix A, Recovery Procedures to install any licensed programs or PTFs that are not successfully installed.

Related Commands

Options 70 and 71 display menus of additional commands you can use.

Selecting option 70 shows the Save and Restore Commands display. This display shows a list of related command menus you can use. For more information on using these command menus, go to the *Backup and Recovery*, SC41-5304, book. Use the Help key for available online information.

Selecting option 71 shows the Program Temporary Fix Commands display. You can use these commands to work with one or more individual PTFs. For more information about these commands and how to use them, go to the chapter on Working with Program Temporary Fixes (PTFs) in the *Basic System Operation, Administration, and Problem Handling*, SC41-5206 , book.

More information about the following commands is available in the *System Manager Use*, SC41-5321, book.

CPYPTFSAVF	Copy PTF to Save File
CRTPTF	Create Program Temporary Fix
CRTPTFPKG	Create PTF Package
HLDPTF	Hold Program Temporary Fix
ORDSPTPTF	Order Supported Product PTFs
RLSPTF	Release Program Temporary Fix
SNDPTF	Send Program Temporary Fix

Appendix C. Licensed Program Information

This appendix contains information that is useful when planning for your software installation. This appendix includes notes about specific licensed programs, information to help you determine if you should delete optional parts of OS/400.

Licensed Program Sizes

This appendix no longer includes size information about licensed program sizes. Refer to "Evaluating Your Disk Storage Needs" on page 3-20 for instructions for how to use the Work with Licensed Programs menu to assist in your storage requirement calculations.

Licensed Programs-Installation Notes

This topic contains information about specific licensed programs which may be helpful when you are planning or installing V4R2M0 licensed programs.

Notes about Removed Products

The following products have been removed:

5716-FS1, OSI File Services for OS/400: This product has been removed in V4R2M0.

5716-MS1, OSI Message Services for OS/400: This product has been removed in V4R2M0.

5716-OS1, OSI Communications Subsystem for OS/400: This product has been removed in V4R2M0.

Notes About 5769-SS1, OS/400

Note: The system must be in a restricted state to install the QGPL and QUSRSYS librearies, and to install Option 12 (Host Servers).

5769-SS1, OS/400 Option 3: This option is automatically installed when you install the new release of OS/400. This option contains IFS directories. You cannot delete this option.

5769-SS1, OS/400 Option 7: b: This range represents the packaged to unpackaged size for this licensed program.

5769-SS1, OS/400 Option 7: Each source physical file in the QUSRTOOL library, <u>except</u> QATTINFO, is contained within and distributed as a save file of the same name. Before any tools can be compiled and run, you must unpackage the appropriate save files. To determine which save files need to be unpackaged, the description of each tool lists the members that make up the tool and the file in which they reside.

To convert save files in the QUSRTOOL library to source physical files, enter the following after the new release Example Tools (QUSRTOOL) library has been installed: CALL PGM(QUSRTOOL/UNPACKAGE) PARM('*ALL' 1).

C-1

The UNPACKAGE program converts save files to source physical files; the PACKAGE program converts source physical files to save files. More information about the PACKAGE and UNPACKAGE programs can be found in file QATTINFO, member TTTINFO.

If you are redistributing the Example Tools Library option, and ran the UNPACKAGE program, it is recommended that you run the PACKAGE program before creating your distribution tape.

5769-SS1, OS/400 Option 13: If you use MI header files in your C programs, you need to install option 13, OS/400 Openness Includes.

5769-SS1, OS/400 Option 22: ObjectConnect, will install automatically over PRPQ 5799-FNR.

5769-SS1, OS/400 Option 23: OptiConnect will install automatically over PRPQ 5799-FQB.

Notes About Other Licensed Programs

5769-CB1, ILE COBOL for AS/400: The compilers for previous release support (V3R1M0, V3R2M0, and V3R6M0) are now in 5769-CB1 Option 6, *PRV ILE COBOL/400. To install option 6, you must use the procedure for installing additional licensed programs. To access *PRV support of V3R1M0, you must install the following PTFs:

5716CB1 SF35310
5716ST1 SF35513

After you install these PTFs, you may notice an increase in the size of this option.

Options 1 and 5 support target release values of *CUR and *PRV. For V3R7M0, *PRV is V2R3M0, V3R0M5 , V3R1M0, V3R2M0, and V3R6M0.

5716-CP3, CallPath for AS/400: This product replaces earlier supported versions of 57xx-CP2 when you use a procedure that replaces licensed programs.

5769-CX2, ILE C for AS/400: Option 1 function is now included in the 5769-CX2 base product. If you have option 1 installed, it will be deleted when the 5769-CX2 base product is installed.

5716-DCT, Language Dictionaries for AS/400: Option 24 is new for V3R2M0 and V3R7M0. You must use the procedure for adding additional licensed programs to install this option.

5769-MG1, Managed System Services for AS/400: You should use the ENDMGDSYS and ENDMGRSRV commands to end the product before performing any save, restore, or install functions. The system must be in a restricted state to install this licensed program.

5769-MQ1, MQSeries for AS/400: Before you save the system or replace this product, you need to quiesce MQSeries.

**5769-NC1, Internet Connection Secure Server for AS/400 (U.S.), and
5769-NCE, Internet Connection Secure Server for AS/400 (Int'l)** : Only one of
these products can be installed on the system at any given time.

5769-PT1, Performance Tools for AS/400: Options 1 and 2 are no longer mutu-
ally exclusive. In V3R1M0 and V3R6M0, both options could not be installed on the
system at the same time.

5769-RD1, OnDemand for AS/400: This V3R7M0 licensed program replaces the
5733-218 product (V3R6M0, V3R1M0, or V3R0M5) or the V3R2M0 licensed
program 5763-RD1. If you have one of these earlier level products installed, this
licensed program will replace it when you use a procedure that replaces licensed
programs.

5769-RG1, ILE RPG for AS/400: The compiler for previous release support
(V3R1M0, V3R2M0, and V3R6M0) is now in 5769-RG1 Option 6, *PRV ILE
RPG/400. To install option 6, you must use the procedure for installing additional
licensed programs. To access *PRV support for V3R1M0, you must install the fol-
lowing PTFs:

5716RG1 SF35383
5716ST1 SF35513

After these PTFs are on your system you may see an increase in the size of this
option.

Options 1 and 5 support target release values of *CUR and *PRV. For option 5 of
V3R7M0, *PRV is V2R3M0, V3R0M5, V3R1M0, V3R2M0, and V3R6M0.

5769-SA2, Integration Services for FSIOP: Integrated PC Server is the new name
for File Serving Input Output Processor and FSIOP.

If you have PRPQ 5733-SA2 installed and you use a procedure that replaces
licensed programs, 5769-SA2 replaces the PRPQ.

5769–SA3, OS/400 Integration for Novell NetWare: If you have PRPQ 5733-SA3
installed and you use a procedure that replaces licensed programs, 5716–SA3,
replaces the PRPQ.

The status of the FSIOP can affect what is included when this product is saved. For
more information refer to the topic "How OS/400 Integration for Novell NetWare
Information is Restored and Saved" in the *Backup and Recovery*, SC41-5304,
book.

The workstation part of the installation changed at V3R7M0. You only need to
install RCONSOLE with the mini work station install. Hardware restrictions that
applied to the client PC no longer exist. The V3R1M0 workstation diskette <u>does not</u>
function with V3R7M0 OS/400. If the V3R1M0 diskette is used, the workstation will
not be connected to the Integrated PC Server, also known as the Input/Output
Processor and FSIOP, and error message FPI5003 "Server is not running" will be
logged in QFP.LOG error log.

5769-SM1, System Manager for AS/400: If you have this product installed, be
sure to end all subsystems before you replace the product or install secondary lan-
guages.

5716-SV2, ADSTAR Distributed Storage Manager for AS/400: The V3R7M0-level of this licensed program is the functional replacement of 5763-SV1 and earlier levels of 5716-SV2.

5769-XZ1, OS/2 Warp Server for AS/400: The status of the FSIOP can affect what is included when this product is saved. For more information refer to the topic "How OS/2 Warp Server for AS/400 Information is Stored and Saved" in the *Backup and Recovery*, SC41-5304, book.

Notes and Packaging Details for Client Access

Corresponding with the availability of V4R2M0, the Client Access family of products is repackaged. Table C-1 shows how the old and new packaging correspond.

Table C-1. Client Access repackaging information		
Previous Packaging	**Current Packaging**	
57xx-XA1 Contained	**57xx-XW1 Contains**	**57xx-XY1 Contains**
-XB1		-XB1
-XC1		-XC1
-XD1	-XD1	
-XF1		-XF1
-XG1		-XG1
-XL1		-XL1
	-XK1	

Notes:

1. When you ordered the new software release, you probably determined which of the clients you are using. If you have 5716-XA1 installed, you should receive either one or both of 5769-XW1 and 5769-XY1.

2. During installation, 5716-XA1 is always deleted during procedures that replace a release of the operating system. If the installation media contains either one or both of 5769-XW1 and 5769-XY1, the appropriate product is installed. Both may be installed. If the media does not contain either product, the installation will fail.

3. 5763-XK1 is not automatically installed. If you use the new Prepare for Install option on the Work with Licensed Programs menu, you can create a customized installation list that will cause 5763-XK1 to install with your automatic installation process.

57xx-XW1 and 57xx-XY1, Client Access: The result you get when you replace these licensed programs can vary with the installation process you use and the level of each licensed program that you have installed. Be certain that you understand the information in "Mixed Release Support-Overview" on page 1-4.

5763-XC1, Client Access for Windows 3.1: This product requires additional storage space to save using the Save Licensed Program (SAVLICPGM) command. See the *Backup and Recovery*, SC41-5304, book for details.

Before you delete or replace an existing release of this product, ensure that each option does not have user-created subdirectories. If any user-created subdirectories exist, the install or delete operation may fail.

5763-XD1, Client Access for Windows 95/NT: This product uses a new service strategy. The administrator needs to make sure that every workstation runs the *Check Service Pack Level* function instead of the update function. The update function in Windows 95/NT is only for end-user applications. Starting with V3R1M3, the user can control when the *Check Service Pack Level* runs using the Service Property Page. For more information about this function, see *Client Access for Windows 95/NT - Setup*, SC41-3512.

5763-XF1, Client Access for OS/2: Option 4 does not appear on the LICPGM menu for V3R2M0 and V3R7M0, and it may not be included on your distribution media.

Although option 4 does appear on the LICPGM menu for V3R6M0, no function is provided. No function was provided in this option in previous releases. You cannot create installation diskettes for this option.

5763-XG1, Client Access Optimized for OS/2: This product requires additional storage space to save using the Save Licensed Program (SAVLICPGM) command. See the *Backup and Recovery*, SC41-5304, book for details.

Before you delete or replace an existing release of this product, ensure that each option does not have user-created subdirectories. If any user-created subdirectories exist, the install or delete operation may fail.

How to Remove Licensed Programs

The following information should help you determine if you should delete an unwanted part of a licensed program. For example, some licensed programs have requirements that certain parts of OS/400 be installed. These requirements are not always apparent. You can use the procedures in this topic to delete the parts of licensed programs you have determined you do not need.

Determining What Unused Parts of Products to Delete

Depending on your business needs, you might be able to delete some of the optional parts of the licensed programs that are shown in Table C-2 on page C-7. (Table C-2 shows V4R2M0 product identifiers, but the information in the table applies to deleting unwanted parts either before or after installing the new release of software.) For example, you can delete the licensed programs for any clients (DOS, DOS with Extended Memory, Windows** 3.1, or OS/2) that you do not use. Deleting unneeded licensed programs or optional parts will give you more DASD for your business needs.

Note: Before deleting anything, read the following:

- If you do not have current OS/400 software distribution media from IBM, make sure that you save the affected licensed program. Type GO LICPGM on the AS/400 command line and select option 13 (Save licensed programs). You will need extra tapes for this save operation. Saving these licensed programs to tape can take several hours. At a later time, if you need any of the licensed programs or optional parts that were deleted, you can install them from these

tapes using GO LICPGM and selecting option 11 (Install licensed programs).This process can also be done by using a customized installation list. See "Creating and Customizing an Installation List" on page 3-15 for more information.

- Some systems are shipped with system backup tapes. These backup tapes are not the same as software distribution media. While you can use software distribution media to reinstall individual licensed programs or optional parts, you cannot use system backup tapes.

To delete unneeded optional parts, use the information in "How to Remove Licensed Programs" on page C-5.

Use Table C-2 on page C-7, "Licensed Programs-Installation Notes" on page C-1, and the following keys to help you determine which programs or optional parts you might want to delete.

Keys for Table C-2 on page C-7:

a	You cannot delete the entire OS/400 operating system. You can delete optional parts.
b	It is recommended that you do not delete this part.
c	Delete this optional part if you are not migrating from a System/36 or System/38 to this AS/400.
d	Delete this optional part if you are running only AS/400 applications.
e	This optional part is needed only by software developers.
f	Do not delete this optional part if you are using the Print Services Facility/400 (see optional part number 17 in this table).
g	Delete this part if you do not need to compile CL programs for a previous release.
h	This option is a separately orderable feature.
i	Do not delete this part if you have applications using Ultimedia System Facilities.
j	Do not delete if you are using Client Access products.
k	If you are not using this specific client (DOS, DOS with Extended Memory, Windows 3.1, Windows 95/NT, or OS/2), you can delete the complete licensed program for that client.
l	If you are using this specific client, do not delete the base option.
m	If your system has the optional parts for both SBCS (single-byte character set) and DBCS (double-byte character set) installed, depending on your national language needs, you might be able to delete the optional part you are not using.
n	There are two 5250 emulators (RUMBA** and PC5250) available with this client. If you are not using both, delete one of them.
o	Do not delete this optional part if you require graphical user interface for system operations.

p　　　　This optional part contains sample programs, migration tools, and debug tools. You should delete this optional part only after you download any tools used by your installation.

q　　　　If you delete this optional part, you must first use the CHGSYSLIBL system command to remove QHLPSYS from the system library list. Refer to note 3 on page C-8 for more information.

Table C-2 (Page 1 of 2). Deleting Unwanted Licensed Programs and Optional Parts After the Installation Is Complete		
Keys	**Licensed Program and Optionally Installable Product Part**	**Number for Product Option**
a	**5769-SS1** OS/400	
q	OS/400 Online Information (Online help information)	2
c	OS/400 System/36 and System/38 Migration	4
d	OS/400 System/36 and System/38 Environment	5 and 6
e	OS/400 Example Tools Library	7
f	OS/400 AFP Compatibility Fonts	8
g	OS/400 *PRV CL Compiler Support	9
c	OS/400 System/36 Migration Assistant	11
b, j	OS/400 Host Servers	12
e	OS/400 Openness Includes	13
	OS/400 GDDM	14
h	OS/400 Common Programming APIs Toolkit	15
i	OS/400 Ultimedia System Facilities	16
h	OS/400 Print Services Facility/400	17
h	OS/400 Media and Storage Extensions	18
j	**57xx-XW1** Client Access Family - Base **57xx-XY1** Client Access Family - Base	Base
p	Client Access - PC Tools Folder	1
k, l	**5763-XB1** Client Access for DOS with Extended Memory	Base
m	Client Access - Ext DOS SBCS or DBCS	1 or 2
m	Client Access - Ext DOS RUMBA SBCS or DBCS	3 or 4
i	Client Access - Ultimedia Facilities	5
k, l	**5763-XC1** Client Access for Windows 3.1	Base
m	Client Access - Windows 3.1 SBCS or DBCS	1 or 2
m, n	Client Access - Windows 3.1 RUMBA SBCS or DBCS	3 or 4
n	Client Access - Windows 3.1 PC5250	5
o	Client Access - GraphicOps for Windows	6
i	Client Access - Ultimedia Facilities	7
k	**5763-XD1** Client Access for Windows 95/NT	Base
k, l	**5763-XF1** Client Access for OS/2	Base
m	Client Access - OS/2 SBCS or DBCS	1 or 2

Table C-2 (Page 2 of 2). Deleting Unwanted Licensed Programs and Optional Parts After the Installation Is Complete

Keys	Licensed Program and Optionally Installable Product Part	Number for Product Option
m	Client Access - OS/2 RUMBA SBCS or DBCS	3 or 4
	Client Access - OS/2 Communications Mgr	5
o	Client Access - GraphicOps for OS/2	6
i	Client Access - Ultimedia Facilities	7
k, l	**5763-XG1** Client Access Optimized for OS/2	Base
n	Client Access - RUMBA Optimized for OS/2	1
n	Client Access - PC5250 Optimized for OS/2	2
o	Client Access - GraphicOps for OS/2	3
i	Client Access - Ultimedia Facilities	4
k, l	**5763-XL1** Client Access for DOS	Base
m	Client Access - DOS SBCS or DBCS	1 or 2

Notes About Deleting Licensed Programs

Notes:

1. A new licensed program or optional part that was installed independently of an operating system release or modification will not appear when using option 12. Use the Delete Licensed Program (DLTLICPGM) command to delete independently shipped licensed programs and optional parts.

2. Do not attempt to use the DLTLIB command to remove a licensed program or optional part of a licensed program from the system. Some licensed programs copy objects into other libraries; the DLTLIB command will not delete the duplicated objects. Using the DLTLIB command to delete a licensed program or optional part could leave the licensed program in a partially installed condition. For a list of IBM-supplied libraries, that are organized by licensed program, see the *Programming Reference Summary*, SX41-5720 , book.

3. If you are unable to delete a licensed program, it may be because the library for the licensed program exists in one of the library lists. Use the WRKSYSVAL command to check both the system library and the user library lists. When the Work with System Values display appears, type a **5** next to the QSYSLIBL and QUSRLIBL system values to display the associated libraries. If the library for the licensed program is listed on this display, press the Enter key to return to the Work with System Values display. Then type a **2** to change the system value. When the Change System Value display appears, use the spacebar to remove that licensed program library from the library list. You will be able to delete your licensed program after your next IPL.

4. When V3R1M0 or higher release is installed and your system is at security level 40 or 50, you cannot delete some products from a previous release level. Message CPD0176 appears if the system security level is 50, and a product earlier than V2R3 has exit programs that do not work at level 50. After V3R1M0 or higher release is installed, you must change the security level to 30 to delete the products. Then, change the security level back to 40 or 50.

Procedures for Deleting Licensed Programs

To remove licensed programs, do the following:

___ 1. Type GO LICPGM and press the Enter key. The Work with Licensed Programs menu appears.

___ 2. Select option 12 (Delete licensed programs). The Delete Licensed Programs display appears.

___ 3. Type 4 (Delete) in the Option column in front of each licensed program that you want to delete. Page down to display additional licensed programs.

    Note: If you select the base part of a licensed program that has optional parts, all the optional parts are also deleted. If you select only an optional part, the base and any other parts remain on your system.

___ 4. Press the Enter key. You are shown the Confirm Delete of Licensed Programs display.

___ 5. Press the Enter key if your selections are correct. Press F12 to make corrections.

___ 6. You receive confirmation messages from the system when the licensed programs are deleted.

___ 7. Press F12 to return to the Work with Licensed Programs menu.

You may have other installed licensed programs and optional parts that do not appear in this list. Refer to note 1 on page C-8 for more information.

Procedures for Deleting PRPQs

To remove PRPQs (Programming Requests for Price Quotaions) or licensed programs that are not listed on the LICPGM menu displays, do the following:

___ 1. Check the product's documentation for any special instructions or considerations you should be aware of before you delete the product.

___ 2. Type the command:

    DLTLICPGM LICPGM(product identifier) OPTION(*ALL)

    Press the Enter key.

___ 3. Do this for each product you need to delete.

Appendix D. Estimating Your Total Installation Time

It is difficult to accurately estimate the amount of time needed to install a new release of software. Many variables combine to create a unique set of circumstances for each system. This appendix helps you estimate the time that you need to install your new release. This appendix does the following:

- Lists common ways to estimate installation time and describes the installation process

- Describes conditions that affect the performance of the installation process

- Lists the types of products that are installed when you replace a release of software

- Provides a checklist and work sheets for determining an estimate that reflects your system and software environment.

Common Methods of Estimating Installation Time

The following list contains the most common methods of estimating your installation time.

- Base your estimate on the installation time of a previous release. If the system configuration and load remain similar, you can use the installation time of a previous release on this system *as the start* of your estimate. *If you rely on only the installation time of the previous release, your estimate may not be accurate.*

   This method may not be accurate if many data conversions occur during the installation process. If you are skipping a release level, generally the time is longer. Be sure to add information for conversions that occur in the release you are skipping and for the new release.

- Base your estimate on the installation time for a similar system. If your enterprise has multiple systems, you can record the actual time to install the new release on one system. You can use this to estimate the time that is needed to install the new release on a system with a similar configuration and load. Of course, you cannot use this method until you complete the installation on the first system.

- Estimate time using a formula. You can use the information in the following sections to estimate how long it will take to install this release on your system. Keep in mind that the number at which you arrive will vary from your actual install time because of the variables that affect installation time.

- Combine one or more of the methods that are listed above.

Types of Products Installed

A new release consists of these parts, installed in the following order:

1. Licensed Internal Code

2. Operating system

3. Licensed programs and optional parts

For installation purposes, the IBM-supplied libraries QGPL and QUSRSYS and the optional parts of the operating system are considered licensed programs.

Installation Processes

The system determines the installation process based on available system resources and the type of product being installed.

A **single-process installation** is when licensed programs are installed one at a time (sequentially). A **multiprocess installation** is when the system starts multiple jobs to perform the installation of two or more licensed programs at the same time.

Licensed Internal Code and the base part of the operating system are always installed using single-process installation. Licensed programs (including libraries QGPL and QUSRSYS and optional parts of the operating system) can be installed using either single-process or multiprocess installation.

If you are installing only one licensed program, the system uses single-process installation. If you are installing more than one licensed program, multiprocess is used if system resources are available. If system resources are not available, single-process is used. Single-process is used when a system's main storage or auxiliary storage is limited, and when a licensed program exceeds the requirements for multiprocess installation. For any set of licensed programs, if the system must use single-process, the installation takes longer. "Multiprocess Installation-Overview" on page D-4 describes the system requirements necessary for multi-process installation.

Clue: Think of multiprocess installation as meaning installing multiple licensed programs.

When replacing a release of software, your choice of the manual or automatic methods has no effect on whether the system uses single-process or multiprocess installation.

Conditions that Affect Installation Time

The amount of time it takes to install the licensed programs depends on your system configuration and the licensed programs you are installing. That is, the larger models with more system capacity have a shorter installation time than smaller models loading the same licensed programs. The major factors that affect installation performance are:

- Installation device

  The speed of the installation device you are installing from has a direct effect on the total installation time. For distributed enterprises where a central site creates tape media for target sites, if your tape device has a hardware decompression feature, the tape files can be loaded faster because the distribution tape is in a compressed format. Otherwise, the system must use software decompression, which requires extra time.

- Number and type of disk unit I/O processors

  The amount of auxiliary storage on your system affects the total installation time. This is especially true for multiprocess installations, where the amount of disk unit I/O activity significantly increases. Generally, the more auxiliary storage units you have on your system, the faster the installation.

- Processing unit capacity

  The number of installation jobs started by the system depends on the capacity of your processing unit. The number of installation jobs started is a factor in a multiprocess installation. The larger model systems can support more concurrent jobs during the installation process than smaller models.

- Disk unit space available

  Installation files can only be loaded into save files if enough disk unit storage is available in the system auxiliary storage pool (ASP). Multiprocess installation uses save files and requires at least 11 megabytes of available auxiliary storage on your system. If this amount is not available, the system uses the single-process installation. If there is not enough space available during the installation process, the system must wait for an installing job to finish its work and delete the save files before loading additional file from the installation media.

  Some licensed programs require more than this amount of available auxiliary storage to install using multiprocess. See "Additional Requirements for Multiprocess" on page D-4 for details.

  Use the Work with System Status (WRKSYSSTS) command to determine if you have the required storage available. The auxiliary storage column lists the system storage (in megabytes) and the percentage used. Use these figures to determine if there are at least 11 megabytes available on your system.

- Main storage available in base pool

  The number of install jobs started by the system depends on the amount of main storage on your system. To use multiprocess installation, there must be at least 1536 KB (kilobytes) of main storage available in the base storage pool of the system. If you have less than this amount in the base storage pool, the system uses single-process installation to install the licensed programs. For additional details of how this space is used, see the "Additional Requirements for Multiprocess" on page D-4.

  To determine the size of the base pool, use the Work with System Status (WRKSYSSTS) command. The pool size listed under System Pool #2 is the size of the base pool on your system. The size of this pool is larger when all subsystems are ended (ENDSBS *ALL) than when subsystems are active. Therefore, if you are planning to install the licensed programs with all subsystems ended, check the base pool size after ending all subsystems.

- Human interaction

  During the manual installation method, you need to interact with messages and displays, and you must load the next media volume when prompted by the system. During the automatic installation method, you usually only need to load the next media volume when prompted by the system. When an end of volume is encountered during an automatic installation, the active multiprocess install jobs continue to install the licensed programs they are currently working on. However, they do not begin installing another licensed program until you load the next media volume.

- User data conversions

  The quantity and type of user data on your system can affect the installation performance. Data conversions are changes made automatically to the internal representation of a program or a file. These changes are needed to provide

more function within a licensed program. Conversions often occur during the installation process or during the save operations when you save the system after the installation is complete. Some conversions add time to the installation process or to the save operations. The type of object being converted and the number of these objects on your system affect the amount of additional time needed.

- Licensed programs to be installed

Some licensed programs take much longer to install than others. In addition, products with documents and folders take longer to install if you do not end all subsystems before you begin the installation process.

Multiprocess Installation-Overview

The operating system determines if your system configuration has enough system capacity to use multiprocess to install licensed programs. If your system has the required resources, the licensed programs are installed concurrently by:

- Loading the licensed program installation files from the media to temporary save files.

- Using multiple batch jobs to concurrently install licensed programs from the save files. The save files are deleted during the installation process.

During installation, a status panel indicates the licensed programs that are currently being installed from save files. The display lists the licensed programs and the type of item being installed for each, as follows:

*PGM   program objects

*LNG   language objects

If your system does not have the required resources for multiprocess, the licensed programs are installed sequentially from the installation media (single-process). In this case, the status panel indicates the licensed program that is currently being installed from the media.

Additional Requirements for Multiprocess

To use the multiprocess installation process for licensed programs, the system requires the following:

1. You must select more than one licensed program to install from the installation media (this includes IBM-supplied libraries and operating system options). If you are only installing one new licensed program and choose option 11 (Install licensed programs), the system uses the single-process installation process to install the licensed program.

2. A multiprocess installation process cannot currently be in progress. If another job is currently performing a multiprocess installation process, the system uses the single-process installation process to install your licensed programs from a different tape device.

3. You must have at least 11 megabytes of available auxiliary storage on your system. If you do not, the system uses single-process to install the licensed programs.

The licensed programs that require the system to have more than 11 megabytes of additional auxiliary storage are shown in the *Multiprocess Storage* column of Table D-3 on page D-11.

4. You must have at least 1536 KB (kilobytes) of main storage available in the base storage pool of the system. The system requires 512K in the system base pool for each of the first three installing jobs. The first job that is started loads the media files into save files. After the requirements for the first three jobs are met, each additional job requires an additional 1024K in the base pool. Therefore, the larger the base pool, the greater number of installation jobs that can be started. This results in a faster installation.

If you are using the automatic installation process, or are installing the licensed programs with all subsystems ended, you only need to verify the auxiliary storage and main storage requirements. See the *Work Management*, SC41-5306, book for procedures to change these values if they do not meet the criteria for multiprocess installation. If you do not have the required resources to enable the system to use multiprocess installation, the installation of licensed programs may take significantly longer than a multiprocess installation. The time difference between the singleprocess installation process and the multiprocess installation process depends on your system configuration and the licensed programs to be installed.

How to Determine Additional Storage for Multiprocess—Scenario

Compare the list of licensed programs that you plan to install with the *Multiprocess Storage* column of Table D-3.

Licensed programs install as two types of objects: program objects (*PGM) and language objects (*LNG). If any licensed program that you plan to install shows a value for either object type in Table D-3, that object requires that the system have more auxiliary storage before the object can be installed with the multiprocess method. You can calculate the amount of additional auxiliary storage space the system needs for multiprocess installation.

___ 1. Determine which licensed programs or optional parts that you plan to install have values in the *Multiprocess Storage* column of Table D-3.

Note: Options 1 and 3 of OS/400 and the IBM-supplied libraries QGPL and QUSRSYS are <u>always</u> installed when you are replacing a release of software.

___ 2. Determine which two licensed programs (or optional parts) from step 1 have the highest values. Add the sizes of the two largest entries.

___ 3. Add 10 to the sum from step 2. The total is the amount of additional storage, in megabytes, that the system needs to use multiprocess installation for <u>all</u> the licensed programs that you plan to install.

For example, you are replacing your release with V4R2M0 and plan to install OS/400 with options 1, 2, 3, and 12, plus Client Access for Windows 3.1 with option 1. You would need to have 68.9 megabytes of additional auxiliary storage (30.4 + 28.5 + 10) for the system to use multiprocess installation for all these products. (QUSRSYS is automatically selected when you replace a release so you need to account for it in your calculations.)

Another example could be that you decide to add additional licensed programs to your existing V4R2M0 system. One of the products you selected, Advanced Function Printing DBCS Fonts for AS/400 (5769-FN1), is listed in the *Multiprocess*

Storage column of Table D-3. You would need 114.4 megabytes of additional auxiliary storage (78.4 + 26.0 + 10) for the system to use multiprocess installation to install the base and options 1 through 5 of Advanced Function Printing DBCS Fonts for AS/400.

Checklist for Estimating Installation Time

The following information is provided to assist you in estimating the approximate installation time of this release on your system. Use the checklist below as a guide. The checklist refers you to other information or work sheets to obtain values. The checklist assumes that you are not changing the primary language of your system. The estimate you arrive at using this checklist is based on the assumption that your system must perform a single-process installation; if your system is able to use multiprocess installation, your time will be less.

Note: The checklist and supporting work sheets do not include the amount of time that is spent on tape positioning, loading of next volumes, media errors, or recovery procedures. User data is not included. The time needed for INZSYS to complete is also not included.

Do the following to estimate your total install time.

__ 1. Estimate the amount of time you need to save your system before you install the new release. Time for saving the system depends on how much storage you have and what percentage of the storage you are using. Use the amount of time from the last backup of your system.

   Time: _____

__ 2. Estimate the amount of time to <u>replace</u> Licensed Internal Code. Allow 30 minutes for smaller systems.

   Time: _____

__ 3. Use Table D-1 on page D-7 to estimate the amount of time to <u>replace</u> OS/400.

   Time: _____

__ 4. Consider the time required for your system to perform an IPL. If your system takes more than 20 minutes to perform an IPL, include the amount of time that exceeds 20 minutes. For example, if your system takes 45 minutes to perform an IPL, enter the difference of 25 minutes for the time (45 - 20 = 25).

   Time: _____

__ 5. Use "Work Sheet 1. Licensed Programs" on page D-8 to estimate the time to install licensed programs. Be sure to include all the licensed programs and optional parts that you intend to install. This time assumes that the system is single-process installing licensed programs.

   Time: _____

__ 6. Determine the amount of time required to install the cumulative PTF package. Use the timing information in the *AS/400 System PTF Shipping Information Letter*.

   Time: _____

___ 7. Add time to convert database cross reference files. Go to 1b on page D-20 to determine if you need to add time. If necessary, use"Database Cross Reference Files" on page D-20 to estimate how much time to add.

Time: _____

___ 8. Add time for saving your system after the install. Be aware that **data conversions can occur during the save operation** that could increase the time needed for saving your system.

Time: _____

___ 9. Add time for any extra clean-up work and to re-customize your system. If you plan to install the softcopy library as part of your installation, include time for this activity.

Time: _____

The total of these steps is your total estimated time for installing your new release.

Estimated Time: _____

Estimates for the Operating System

The time needed is influenced by two primary factors: the speed of the processor model and the speed of the tape device. The speed of the processor model determines how fast installation processing occurs; the speed of the installation device used determines how fast data is retrieved from the media.

Table D-1 (Page 1 of 2). Estimated Installation Time for Base OS/400, in minutes					
Traditional Models			**Server Models**		
Model	**Processor**	**Time**	**Model**	**Processor**	**Time**
150	2269 2270	65 50	40S	2110 2111 2112	60 55 50
400	2130 2131 2132 2133	125 80 65 60	50S	2120 2121 2122	50 50 50
500	2140 2141 2142	80 65 55	53S	2154 2155 2156 2157	50 50 50 50
510	2143 2144 2152	50 50 50	S10	2118 2119	60 55
530	2150 2151 2153 2162	50 50 50 50	S20	2161 2163 2165 2166	50 50 50 50
600	2129 2134 2135 2136	85 70 60 50	S30	2257 2258 2259 2260	50 50 50 50

Table D-1 (Page 2 of 2). Estimated Installation Time for Base OS/400, in minutes

Traditional Models			Server Models		
Model	**Processor**	**Time**	**Model**	**Processor**	**Time**
620	2179 2180 2181 2182	55 50 50 50	S40	2256 2261	50 50
640	2237 2238 2239	50 50 50			
650	2240 2243	50 50			
SB1	2310 2311	50 50			

Note: These installation times are based on using CD-ROM installation media. If you install from tape (such as a distribution tape created by a central site), these numbers are not valid. The speed of the CD-ROM is 600 kilobytes per second, which is the same rate as the 6390 tape drive (8mm). The next closest tape speed is 300 kilobytes per second for the new 6380 tape drive (1/4 inch).

Work Sheet 1. Licensed Programs

This work sheet helps you estimate the maximum amount of time that is needed to install licensed programs.

The size and complexity of a licensed program are primary factors that determine the installation time required. The time needed is also influenced by the speed of the processor, the speed of the media device used, and which installation process the system is able to use.

Note: This work sheet determines an estimate for the single-process installation time for your selected licensed programs. This provides the maximum expected time for installing licensed programs. Since the system attempts to perform a multiprocess installation whenever possible, your actual time should be somewhat less than the value you arrive at by using this work sheet. Because of the unique combination of conditions affecting installation time for your system, it is not possible to provide meaningful estimates for multiprocess installation.

___ 1. Determine the total base time for the licensed programs that you are replacing.

    a. Identify the licensed programs and optional parts that are currently installed on your system and that you plan to replace.

      Note: If you are replacing all IBM supplied software, be sure to include values for OS/400 option 1 and IBM supplied libraries QGPL and QUSRSYS.

    b. For the licensed programs and optional parts that you identified, add the values shown in the *Base Value A* column of Table D-3 on page D-11. The sum is your base time in minutes for replaced licensed programs. Write this sum here.

      Replacing: _____

___ 2. Determine the total base time for the licensed programs and optional parts that you are <u>adding</u> to your system for the first time.

    a. Identify the licensed programs and optional parts that you are adding to your system. If you have verified your media and created a customized installation list, use the printout from"Creating and Customizing an Installation List" on page 3-15 to identify the products.

        Note: If you are installing a <u>new</u> AS/400, include all the licensed programs and optional parts that you plan to install. Be sure to include values for OS/400 option 1 and IBM supplied libraries QGPL and QUSRSYS.

    b. For the licensed programs and optional parts that you identified, add the values shown in the *Base Value B* column of Table D-3 on page D-11. The sum is your base time in minutes for added licensed programs. Write this sum here.

    Adding: _____

___ 3. Add the base values shown in steps 1 on page D-8 and 2.

    Sum: _____

___ 4. Use Table D-2 to determine the multiplication factor to use for your model and processor. Write the value here.

    Multiply by: _____

___ 5. Multiply the time shown in step 3 by the value in step 4. The result is your estimated maximum value for installing licensed programs (in minutes). Use this value for the licensed program installation time in step 5 of the "Checklist for Estimating Installation Time" on page D-6.

    Total Estimate: _____

Note: The estimated time that you determine with this work sheet is for a single-process installation. Expect some variation in the value you determine for the licensed programs you estimated in step 5. CD-ROM is the only valid installation device. These values are not accurate if you install from tape, such as for distribution tapes created by a central site. The speed of the CD-ROM is 600 kilobytes per second, which is the same rate as the 6390 tape drive (8mm). The next closest tape speed is 300 kilobytes per second for the new 6380 tape drive (1/4 inch).

Table D-2 (Page 1 of 2). Estimating Licensed Program Installation Time:: Multiplication Factor					
Model	**Processor**	**Multiplication Factor for Licensed Programs**	**Model**	**Processor**	**Multiplication Factor for Licensed Programs**
150	2269 2270	2.1 2.0	40S	2109 2110 2111 2112	2.1 2.0 1.6 1.16
400	2130 2131 2132 2133	2.43 2.42 2.14 2.0	50S	2120 2121 2122	1.42 1.0 0.92

Table D-2 (Page 2 of 2). Estimating Licensed Program Installation Time:: Multiplication Factor					
Model	Processor	Multiplication Factor for Licensed Programs	Model	Processor	Multiplication Factor for Licensed Programs
500	2140 2141 2142	2.42 2.14 1.6	53S	2154 2155 2156 2157	0.92 (all processors)
510	2143 2144	1.42 1.0	S10	2118 2119	2.0 1.6
530	2150 2151 2152 2162	0.92 (all processors)	S20	2161 2163 2165 2166	1.09 0.92 0.92 0.92
600	2129 2134 2135 2136	2.4 2.2 2.0 1.6	S30	2257 2258 2259 2260	0.92 (all processors)
620	2175 2179 2180 2181 2182	2.0 1.6 1.09 0.92 0.92	S40	2261	0.92
640	2237 2238 2239	0.92 (all processors)			
650	2240 2243	0.92 (all processors)			
SB1	2310 2311	0.92 (all processors)			

Licensed Program Times

Table D-3 on page D-11 will help you determine the <u>maximum</u> time that you need to install licensed programs. Table D-3 shows the base values to use for time calculations and factors that influence your calculations.

Note: The maximum installation time values that you calculate assumes that the system uses single-process installation. For most licensed programs, the system uses multiprocess installation. Because multiprocess installation has many variables that are unique to each system, the time for multiprocess installation is virtually unpredictable using Table D-3 on page D-11 and "Work Sheet 1. Licensed Programs" on page D-8. Consider the time you arrive at using this information as your worst-case installation time.

Multiplication Values are base values used to calculate the installation time for the licensed programs and options you plan to install. The base value is <u>not</u> the installation time. You must use this value with the information provided in Table D-2 on page D-9.

Base Value A Use this base value for the licensed programs that you are replacing as part of an upgrade.

Base Value B Use this base value for the licensed programs that you are adding to an existing system after an upgrade.

Factors Influencing Installation Time indicate which licensed programs or optional parts may be affected by additional factors. Characteristics of the licensed programs being installed can sometimes cause a significant impact on your installation time. Table D-3 indicates which licensed programs and options may cause your installation to run longer.

Multiprocess Storage If the size of a licensed program exceeds the 11MB of auxiliary storage that the system uses for multiprocess installation, the licensed program is installed with the single-process method. Values shown in this column (either *PGM or *LNG) indicate which part of the licensed program requires additional storage for multiprocess installation. "Multiprocess Installation-Overview" on page D-4 describes multiprocess installation. A dash indicates the product will multiprocess install within the system's standard settings.

Documents and Folders Licensed programs and optional parts with documents or folders can take longer to install. Yes indicates these products have documents or folders.

Table D-3 (Page 1 of 9). Licensed program time information

Product Option and Description		Multiplication Values(1)		Factors Influencing Installation Time		
		Base Value A	Base Value B	Multiprocess Storage(2)		Documents and Folders(3)
				*PGM	*LNG	
5769-999						
–	Licensed Internal Code	NA	NA	NA	NA	NA
5769-SS1						
Base	Operating System/400	NA	NA	NA	NA	NA
Library	OS/400–Library QGPL	0.1	0.1	–	–	–
Library	OS/400–Library QUSRSYS	1.2	1.2	–	–	
1	OS/400 Extended Base Support	2.1	2.1	–	–	Yes
2	OS/400–Online Information	0.7	0.6	–	28.5	–
3	OS/400-Extended Base Directory Support	2.6	1.0	-	-	
4	OS/400–S/36 and S/38 Migration	4.7	1.9	13.2	–	–
5	OS/400–System/36 Environment	4.1	1.4	11.1	–	–
6	OS/400–System/38 Environment	0.6	0.7	–	–	–
7	OS/400–Example Tools Library	0.9	0.6	–	–	–
8	OS/400–AFP* Compatibility Fonts	0.7	1.1	11.5	NA	–
9	OS/400– *PRV CL Compiler Support	23.5	16.9	–	51.3	–
11	OS/400–S/36 Migration Assistant	1.2	0.6	–	–	–
12	OS/400–Host Servers	38.3	30.5	18.5	30.4	–
13	OS/400–Openness Includes	13.6	5.6	55.5	NA	–
14	OS/400–GDDM	1.4	0.5	–	–	–

Estimating Installation Time

Table   D-3 (Page 2 of 9). Licensed program time information

| Product Option and Description | | Multiplication Values(1) | | Factors Influencing Installation Time | | |
| | | Base Value A | Base Value B | Multiprocess Storage(2) | | Documents and Folders(3) |
				*PGM	*LNG	
15	OS/400–Common Programming APIs Toolkit	0.6	0.3	–	–	–
16	OS/400–Ultimedia System Facilities	4.8	4.3	-	–	Yes
17	OS/400–Print Services Facility/400	0.5	0.3	11.5	NA	–
18	OS/400–Media and Storage Extensions	0.2	0.1	–	–	Yes
20	OS/400–Advanced 36	0.9	0.5	–	–	–
21	OS/400–Locale Source Library	0.7	0.5	–	–	–
22	OS/400–ObjectConnect	0.6	0.4	–	–	–
23	OS/400-OptiConnect	0.7	0.4	–	–	–
24	OS/400-Lotus Notes Enhanced Integration	2.4	2.1	–	63.5	–
25	OS/400-NetWare Enhanced Integration	1.7	0.6	17.6	–	–
26	OS/400-DB2 Symmetric Multiprocessing	0.2	0.1	–	–	–
27	OS/400-DB2 Multisystem	0.2	0.2	–	–	–
28	OS/400-Integration of FlowMark	0.4	0.3	-	-	
29	OS/400 - NT Server	4.3	4.2	-	-	
30	OS/400 - QShell	0.6	0.7	-	-	
31	OS/400 - Domain Name Server	0.5	0.5	-	-	
5769-AF1						
Base	IBM AFP Utilities for AS/400	3.7	2.1	–	–	–
5769-AP1						
Base	IBM Advanced DBCS Printer Support for AS/400	NA	NA	–	–	–
1	Adv DBCS Printer Support for OS/400 - IPDS	NA	NA	–	–	–
5769-BR1						
Base	Backup Recovery and Media Services for AS/400	13.3	10.7	49.5	30.4	–
5769-CB1						
Base	ILE COBOL for AS/400	0.7	0.5	–	–	–
1	ILE COBOL - System/36-compatible COBOL	1.2	0.4	–	–	–
2	ILE COBOL - System/38-compatible COBOL	1.2	0.5	–	–	–
5	ILE COBOL - COBOL/400	1.5	0.5	–	–	–
6	ILE COBOL - *PRV ILE COBOL	0.5	0.2	15.0	–	–
5769-CF1						
Base	Point-of-Sale Utility for AS/400	2.4	1.3	–	–	–
5716-CL1						
Base	Application Development ToolSet Client Server for AS/400	2.9	1.3	20.5	-	–

Table D-3 (Page 3 of 9). Licensed program time information

Product Option and Description		Multiplication Values(1)		Factors Influencing Installation Time		
		Base Value A	Base Value B	Multiprocess Storage(2)		Documents and Folders(3)
				*PGM	*LNG	
1	CoOperative Development Environment/400	2.7	1.2	16.6	–	–
2	AS/400 VRPG Client/2	6.0	2.7	61.7	–	–
5763-CL2						
Base	Application Development ToolSet Client Server for AS/400	7.0	1.7			
1	ADTS CS (for Windows)	4.6	1.1			
2	VisualAge RPG for Windows	11.1	2.3			
5769-CM1						
Base	Communications Utilities for AS/400	1.9	1.0	–	–	–
5716-CP3						
Base	CallPath for AS/400	3.1	1.0	15.8	–	–
5769-CR1						
Base	Cryptographic Support for AS/400	1.1	0.8	–	–	–
5769-CX2						
Base	ILE C for AS/400	2.6	1.1	20.0	–	–
5716-CX4						
Base	VisualAge C++ for AS/400 (for OS/2)	0.4	0.3	–	–	–
1	CSet ++ Client/2 for OS/400	27.1	9.2	21.5	126.3	–
5716-CX5						
Base	VisualAge for C++ for AS/400 (for Windows)	0.5	0.4	84.5	-	
1	VisualAge C++ for Windows 95/NT Client	40.8	29.1	-	-	
5769-DB1						
Base	System/38 Utilities for AS/400	3.1	1.0	–	–	–
5716-DCT						
Base	Language Dictionaries for AS/400	0.3	0.5	-	-	-
1	Afrikaans Dictionary	0.2	0.2	-	NA	-
2	Dutch Modern Dictionary	0.2	0.2	-	NA	-
3	Brazilian Portuguese Dictionary	0.2	0.2	-	NA	-
4	Catalan Dictionary	0.2	0.1	–	NA	–
5	Danish Dictionary	0.2	0.2	–	NA	–
6	German Dictionary	0.3	0.2	–	NA	–
7	Swiss German Dictionary	0.2	0.2	–	NA	–
8	Spanish Dictionary	0.2	0.2	–	NA	–
9	French National Dictionary	0.2	0.2	–	NA	–
10	French Canadian Dictionary	0.2	0.2	–	NA	–
11	Greek Dictionary	0.2	0.1	–	NA	–
12	Icelandic Dictionary	0.2	0.2	–	NA	–
13	Italian Dictionary	0.2	0.2	–	NA	–
14	US Legal Dictionary	0.1	0.1	–	NA	–

Estimating Installation Time

| | | Multiplication Values(1) | | Factors Influencing Installation Time | | |
| | | | | Multiprocess Storage(2) | | |
Product Option and Description		Base Value A	Base Value B	*PGM	*LNG	Documents and Folders(3)
15	US Medical Dictionary	0.2	0.1	–	NA	–
16	Dutch Dictionary	0.2	0.2	–	NA	–
17	Norwegian Dictionary	0.2	0.2	–	NA	–
18	Norwegian Nynorsk Dictionary	0.2	0.2	–	NA	–
19	Portuguese Dictionary	0.2	0.2	–	NA	–
20	Finnish Dictionary	0.2	0.1	–	NA	–
21	Swedish Dictionary	0.2	0.2	–	NA	–
22	UK English Dictionary	0.2	0.1	–	NA	–
23	US English Dictionary	0.2	0.2	–	NA	–
24	Russian Dictionary	0.3	0.2	–	NA	–
5769-DFH						
Base	CICS for AS/400	6.9	2.0	21.7	15.5	–
1	CICS for AS/400 - Sample Applications	1.1	0.6	–	–	–
5769-DP1						
Base	DataPropagator Relational Capture and Apply for AS/400	1.5	1.0	-	-	-
5769-DS1						
Base	Business Graphics Utility for AS/400	0.9	0.5	–	–	–
5769-FNT						
Base	Advanced Function Printing Fonts for AS/400	0.4	0.3	–	–	–
1	AS/400 Font–Sonoran Serif[1]	0.3	0.4	–	NA	–
2	AS/400 Font–Sonoran Serif Headliner	0.2	0.2	–	NA	–
3	AS/400 Font–Sonoran Sans Serif[2]	0.3	0.3	–	NA	–
4	AS/400 Font–Sonoran Sans Serif Headliner	0.2	0.2	–	NA	–
5	AS/400 Font–Sonoran Sans Serif Condensed	0.3	0.3	–	NA	–
6	AS/400 Font–Sonoran Sans Serif Expanded	0.2	0.2	–	NA	–
7	AS/400 Font–Monotype Garamond**	0.2	0.2	–	NA	–
8	AS/400 Font–Century Schoolbook**	0.3	0.3	–	NA	–
9	AS/400 Font–Pi and Specials	0.2	0.2	–	NA	–
10	AS/400 Font–ITC Souvenir**	0.3	0.3	–	NA	–
11	AS/400 Font–ITC Avant Garde Gothic**	0.2	0.3	–	NA	–
12	AS/400 Font–Math and Science	0.2	0.2	–	NA	–
13	AS/400 Font–DATA1	0.2	0.1	–	NA	–
14	AS/400 Font–APL2*	0.2	0.2	–	NA	–
15	AS/400 Font–OCR A and OCR B	0.2	0.1	–	NA	–
5769-FN1						

Table D-3 (Page 5 of 9). Licensed program time information

| Product Option and Description | | Multiplication Values(1) | | Factors Influencing Installation Time | | |
| | | Base Value A | Base Value B | Multiprocess Storage(2) | | Documents and Folders(3) |
				*PGM	*LNG	
Base	Advanced Function Printing DBCS Fonts for AS/400	0.3	0.3	–	NA	–
1	AS/400 Font (DBCS)–Japanese	1.9	2.7	78.4	NA	–
2	AS/400 Font (DBCS)–Korean	0.8	1.2	26.0	NA	–
3	AS/400 Font (DBCS)–Traditional Chinese	0.5	0.5	14.4	NA	–
4	AS/400 Font (DBCS)–Simplified Chinese	0.3	0.5	–	NA	–
5	AS/400 Font (DBCS)–Thai	0.2	0.3	–	NA	–
5769-FW1						
Base	Firewall for AS/400	7.3	4.7	-	32.2	
5763-JC1						
Base	AS/400 Toolbox for Java	2.6	1.2			
5769-JS1						
Base	Job Scheduler for AS/400	10.5	4.5	19.1	12.7	–
5769-JV1						
Base	AS/400 Developer Kit for Java	6.7	3.8			
5769-MG1						
Base	Managed System Services for AS/400	4.9	3.2	25.7	11.2	–
5769-MQ1						
Base	MQSeries for AS/400	4.3	2.0	16.6	–	–
1	MQSeries for AS/400 - Samples	0.6	0.3	–	NA	–
2	MQSeries for AS/400 - Admin Application	0.9	0.5	–	–	–
5769-NC1						
Base	Internet Connection Secure Server for AS/400 (U.S.)	NA	NA			
5769-NCE						
Base	Internet Connection Secure Server for AS/400 (Int'l)	4.9	2.8	-	-	
5769-PD1						
Base	Application Program Driver for AS/400	7.5	5.2	40.9	17.2	–
5769-PM1						
Base	Performance Management/400	3.1	1.2	-	–	–
5769-PT1						
Base	Performance Tools for AS/400	4.0	1.5	24.3	13.1	–
1	Performance Tools for AS/400 - Manager Feature	1.6	0.6	16.3	14.3	–
2	Performance Tools for AS/400 - Agent Feature	0.4	0.3	13.5	13.5	–
5769-PW1						
Base	Application Development ToolSet for AS/400 - SEU	0.9	0.5	–	–	–

Estimating Installation Time

Table D-3 (Page 6 of 9). Licensed program time information

Product Option and Description		Multiplication Values(1)		Factors Influencing Installation Time		
		Base Value A	Base Value B	Multiprocess Storage(2)		Documents and Folders(3)
				*PGM	*LNG	
1	ADTS	5.5	2.1	22.8	15.9	–
2	ADTS- App Dev Manager	3.9	2.0	221.8	–	–
3	ADTS - AppDict Services	12.7	4.7	40.9	13.1	–
5769-QU1						
Base	Query for AS/400	0.8	0.4	–	–	–
5769-RD1						
Base	OnDemand for AS/400	5.4	2.4	-	-	
1	OnDemand for AS/400 Spooled File Archive Feature	10.0	5.1	17.0	–	–
2	OnDemand for AS/400 Object Archive Feature	2.6	1.6	11.6	–	–
3	OnDemand for AS/400 Record Archive Feature	2.9	0.5	11.7	–	–
4	OnDemand for AS/400 AnyStore Feature	1.0	0.5		-	-
5769-RG1						
Base	ILE RPG for AS/400	0.7	0.5	–	–	–
1	ILE RPG IBM System/36-Compatible RPG II	1.0	0.5	–	–	–
2	ILE RPG IBM System/38-Compatible RPG III	0.8	0.4	–	–	–
5	ILE RPG - RPG	1.0	0.4	–	–	–
6	ILE RPG - *PRV ILE RPG	0.3	0.2	–	–	–
5769-SA2						
Base	Integration Services for FSIOP	6.4	3.4	41.2	45.7	–
5769-SA3						
Base	OS/400 Integration for Novell NetWare	1.3	0.4	–	–	–
5769-SM1						
Base	System Manager for AS/400	4.5	2.3	17.3	–	Yes
5769-ST1						
Base	DB2 Query Manager and SQL Development Kit for AS/400	2.3	0.7	–	–	–
5716-SVA						
Base	NetFinity Server for AS/400	6.5	6.1	16.5	14.3	
5716-SVD						
Base	NetFinity AS/400 Manager for OS/2	0.9	0.9	-	-	
5716-SVE						
Base	NetFinity AS/400 Manager for Windows 95	0.9	0.8	-	-	
5716-SVM						
Base	SystemView Base for AS/400	0.3	0.3	-	–	–
1	SystemView Base for AS/400- Launch window	0.9	0.5	-	–	–

Table D-3 (Page 7 of 9). Licensed program time information

Product Option and Description		Multiplication Values(1)		Factors Influencing Installation Time		
		Base Value A	Base Value B	Multiprocess Storage(2)		Documents and Folders(3)
				*PGM	*LNG	
5716-SV2						
Base	ADSTAR Distributed Storage Manager for AS/400	1.3	1.0	19.1	12.6	–
5769-TC1						
Base	TCP/IP Connectivity Utilities for AS/400	8.3	4.7	24.6	13.4	–
5716-UB1						
Base	Ultimedia Ultimedia Business Conferencing for AS/400	1.8	1.3	–	–	Yes
1	Business Conferencing/400 - Windows	0.7	0.4	–	–	Yes
2	Business Conferencing/400 - OS/2	0.7	0.4	–	–	Yes
3	Person to Person for OS/2	0.9	0.5	–	–	Yes
4	Person to Person for Windows	0.8	0.5	–	–	Yes
5716-US1						
Base	Client Access Ultimedia Tools for AS/400	0.3	0.3	–	–	Yes
1	Ultimedia Perfect Image/400 - OS/2 SBCS	0.9	0.4	–	NA	Yes
3	Ultimedia Perfect Image/400 - OS/2 Samples	1.2	0.7	29.3	NA	Yes
4	Ultimedia Builder/400 - OS/2 SBCS	2.4	1.2	49.1	NA	Yes
6	Ultimedia Builder/400 - OS/2 Samples	6.9	3.1	155.6	NA	Yes
5716-VG1						
Base	VisualGen Host Services for AS/400	0.7	0.7	–	–	–
5769-WP1						
Base	OfficeVision for AS/400	7.8	4.2	12.0	–	Yes
1	OfficeVision for AS/400 - Text Search	4.2	1.7	24.8	–	Yes
2	OfficeVision for AS/400 -Calendar	2.8	1.1	20.6	–	Yes
3	OfficeVision for AS/400 -Mail	0.7	0.5	15.6	15.9	Yes
4	OfficeVision for AS/400 - Editor	2.3	0.4	25.0	NA	Yes
5763-XB1						
Base	Client Access DOS with Extended Memory client	0.5	0.4	-	-	Yes
1	Client Access - Ext DOS SBCS	4.2	1.7	16.2	-	Yes
2	Client Access - Ext DOS DBCS	2.9	1.2	-	-	Yes
3	Client Access - Ext DOS RUMBA** SBCS	1.9	0.9	–	–	Yes
4	Client Access - Ext DOS RUMBA DBCS	1.8	0.9	–	–	Yes
5	Client Access - Ultimedia Facilities	1.3	0.7	–	–	Yes
5763-XC1						
Base	Client Access for Windows 3.1	0.6	0.5	-	-	Yes
1	Client Access - Windows 3.1 SBCS	11.4	6.1	22.9	–	Yes

Estimating Installation Time

Table D-3 (Page 8 of 9). Licensed program time information

| Product Option and Description | | Multiplication Values(1) | | Factors Influencing Installation Time | | |
| | | Base Value A | Base Value B | Multiprocess Storage(2) | | Documents and Folders(3) |
				*PGM	*LNG	
2	Client Access - Windows 3.1 DBCS	10.6	5.8	17.9	–	Yes
3	Client Access - Windows 3.1 RUMBA SBCS	6.5	4.0	–	–	Yes
4	Client Access - Windows 3.1 RUMBA DBCS	6.8.	3.9	–	–	Yes
5	Client Access - Windows 3.1 PC5250	7.5	4.2	13.7	–	Yes
6	Client Access - GraphicOps for Windows	2.8	2.0	–	–	Yes
7	Client Access - Ultimedia Facilities	3.5	2.2	–	–	Yes
8	Client Access - Graphical Access for OS/400	3.2	2.0	13.5	–	Yes
9	Client Access - SysObject Access for OS/400	5.2	3.1	–	–	Yes
5763-XD1						
Base	Client Access for Windows 95/NT	11.3	7.0	45.7	12.1	Yes
5763-XF1						
Base	Client Access for OS/2	0.5	0.4	–	–	Yes
1	Client Access - OS/2 SBCS	2.7	1.2	–	–	Yes
2	Client Access - OS/2 DBCS	2.5	1.0	–	–	Yes
3	Client Access - OS/2 RUMBA SBCS	2.0	0.8	–	–	Yes
5	Client Access - OS/2 Communications Mgr	0.7	0.4	–	NA	Yes
6	Client Access - GraphicOps for OS/2	1.1	0.7	–	–	Yes
7	Client Access - Ultimedia Facilities	1.3	0.7	–	–	Yes
5763-XG1						
Base	Client Access Optimized for OS/2	27.6	16.4	64.2	-	Yes
1	Client Access - RUMBA Optimized OS/2 client	6.4	3.4	–	–	Yes
2	Client Access - PC5250 Optimized OS/2 client	6.4	3.5	11.3	–	Yes
3	Client Access - GraphicOps OS/2 client	2.5	2.0	–	–	Yes
4	Client Access - Ultimedia Facilities	3.0	2.0	–	–	Yes
5	Client Access - Graphical Access for OS/400	1.6	1.1	–	–	Yes
5763-XK1						
Base	Client Access Enhanced for Windows 3.1	20.0	11.5	53.1	-	
1	Client Access - Win 3.1 SBCS	9.0	5.1	16.0	-	
2	Client Access - Win3.1 DBCS	8.4	4.7	13.5	-	
3	Client Access - Win 3.1 PC5250 Korean	7.7	4.4	13.4	-	
4	Client Access - Win 3.1 PC5250 Traditional Chinese	7.5	4.3	13.2	-	

Table D-3 (Page 9 of 9). Licensed program time information

Product Option and Description		Multiplication Values(1)		Factors Influencing Installation Time		
		Base Value A	Base Value B	Multiprocess Storage(2)		Documents and Folders(3)
				*PGM	*LNG	
5	Client Access - Win 3.1 PC5250 Simplified Chinese	7.5	4.2	14.9	-	
5763-XL1						
Base	Client Access for DOS	0.4	0.4	–	–	Yes
1	Client Access - DOS SBCS	3.4	1.4	–	–	Yes
2	Client Access - DOS DBCS	1.9	0.9	–	–	Yes
5769-XW1						
Base	AS/400 Client Access Family for Windows	0.3	0.4	-	-	
5769-XY1						
Base	AS/400 Client Access Family	0.3	0.3	-	113.1	
5769-XZ1						
Base	OS/2 Warp Server for AS/400	4.1	2.7	-	67.8	Yes

Notes:

1. <u>Do not</u> use only these values for your time estimate; the result will not be accurate. Use"Work Sheet 1. Licensed Programs" on page D-8 and the multiplication factors in Table D-2 on page D-9 to calculate the single-process installation time for the licensed programs you plan to install.

2. When a product has a numerical value shown in this column, use the value shown with the example within "Additional Requirements for Multiprocess" on page D-4 to determine the extra storage required to use multiprocess installation. If no value is shown, there is no additional storage requirement for multiprocess installation.

3. The products indicated can take longer to install. See "Conditions that Affect Installation Time" on page D-2 for more information.

Estimating Time for Conversions

The number and type of conversions that occur when you install the new release can have a significant affect on your installation time. *Only the conversions that add to your installation time are discussed in the following paragraphs.*

More conversions occur if you are skipping a release level. You need to consider the time for conversions in both the release you are skipping and in the new release. To estimate the time that conversions will take during your installation, you may need to gather information about specific object types on your system.

Note: If you are replacing V3R6M0 with V3R7M0, there are no conversions that will significantly affect your installation time.

Data Protection Mechanisms

If your system uses mirroring or an implementation of a RAID-5 technique in the system ASP, your installation time can be longer. Mirroring and implementations of RAID-5 techniques do not affect the duration of saves.

Database Cross Reference Files

If your system has database cross reference files from an earlier release, these files will need to be converted before you install the new release. Converting these files may add some time to your installation process. However, the conversion will enable faster access times for future database queries.

Follow the procedure given below to determine how much time you will need to complete the conversion of the cross reference files:

1. Determine if you have any cross reference files.

    a. Type DSPFD QADBIFLD at the command line and press Enter.

    b. Record the number shown in the Current Number of Records field:

    _____

    If that number is zero, you do not need to add more time to your installation process. Otherwise, complete the steps below to estimate how much time the conversion will take.

2. Look up your system in the table that follows to find the applicable time factor.

Table D-4 (Page 1 of 2). Multiplication factors for AS/400 models and processor feature codes

Model	Feature Code	Time Factor
150	2269	1.1
	2270	1.4
400	2130	0.5
	2131	0.7
	2132	1.0
	2133	1.3
500	2140	0.5
	2141	1.0
	2142	1.4
510	2143	2.4
	2144	3.1
530	2150	4.6
	2151	5.7
	2152	5.7
	2153	5.7
	2162	5.7
600	2129	0.7
	2134	1.0
	2135	1.4
	2136	2.2

Table   D-4 (Page 2 of 2). Multiplication factors for AS/400 models and processor feature codes

Model	Feature Code	Time Factor
620	2179	2.2
	2180	3.3
	2181	6.4
	2182	6.4
640	2237	9.7
	2238	9.7
	2239	9.7
650	2240	9.7
	2243	9.7
40S	2109	1.0
	2110	1.3
	2111	2.2
	2112	2.9
50S	2120	2.4
	2121	3.1
	2122	3.7
53S	2154	5.7
	2155	5.7
	2156	5.7
	2157	5.7
S10	2118	1.4
	2119	2.2
S20	2161	3.3
	2163	6.4
	2165	6.4
	2166	6.4
S30	2257	9.7
	2258	9.7
	2259	9.7
S40	2260	9.7
	2261	9.7

3. To estimate the time, in minutes, for the database cross reference file conversions, use the number from 1b on page D-20 and the time factor from the table in this equation:

```
Estimated Time = [(CRN x .0002) + 31.5]/Time Factor
```

Note: CRN = Current number of records.

For example, assume you have a Model 510, with a feature number of 2144. The table shows a time factor of 3.1 for this model and feature number. You determined that the current number of records (CRN) in QADBIFLD is 53,254. The equation would be set up as follows:

```
Estimated Time = [(53,253 x .0002) + 31.5] / 3.1
```

In this example, it would take approximately 13.6 minutes to convert the database cross reference files on the system.

Appendix E. Additional Installation Information

This appendix contains information that may help you to streamline and to prevent problems in your installation process.

Blank Displays

During the installation process, you can see some blank displays. Some of these are predictable and the instructions give an approximate amount of time when there appears to be no installation activity. Other blank displays are less predictable because of unique situations on your system. If the processor light is blinking or SRC codes are changing, the installation process is active. If the processor light goes out, the attention light turns on, and an SRC code appears on the control panel, go to Appendix A, "Recovery Procedures" on page A-1 and follow the instructions.

System Password

Support exists to detect processor model changes on all model AS/400 systems through the use of a 16-character system password. The system password identifies all model changes to help maintain the quality and integrity of the AS/400 system. The system password also ensures the protection of IBM's intellectual property, including IBM Licensed Internal Code and licensed programs.

New systems ship from the factory with the correct system password already installed. A new system password is required for each model change or for conditions that indicate probable change of ownership. IBM provides the new system password, required at the time of the first IPL. If you do not have the system password when needed, contact your marketing representative to place an AS/400 system password RPQ (Request for Price Quotation) order. IBM manufacturing receives the RPQ order and sends the system password to you for installation. If the correct system password is not entered, you can select a system password bypass period to allow you to obtain the correct system password from your marketing representative. If the correct password is not available and the bypass period expires, the system will not complete the next IPL unless the correct password is installed. While in bypass mode, the system uses control console messages to indicate the time that remains until the bypass period expires.

For more details on the system password, see the *Basic System Operation, Administration, and Problem Handling*, SC41-5206, book.

Verify Electronic Customer Support

The electronic customer support function connects the AS/400 to the IBM service system. It is used for hardware and software problem analysis, reporting, and management. Electronic customer support will enable a call to the system and allow remote hardware and software problem analysis, reporting, and management.

If you are unsure whether you use electronic customer support on your system, can do the following to test if it is configured:

___ 1. Test electronic customer support by typing the command SNDSRVRQS and press the Enter key. If all parameters are correct, the test should complete with the message Test request complete.

   If you receive any other response, continue with step 2 and complete this procedure.

___ 2. The message Error occurred while processing request appears for several error conditions. A common condition that generates this error is when a resource name that is not valid is used to identify the line for electronic customer support. If you see this message, type the command WRKLIND and press the Enter key. Ensure that the line description matches the resource name for the line that you are attempting to use for electronic customer support.

___ 3. The message Modem command not valid appears if no phone number is present. If you see this message, type CALL QESPHONE on the command line and press the Enter key. Verify that the phone numbers are correct.

___ 4. Enter the command WRKCNTINF and press the Enter key.

   a. Select option 2 to work with local service information.

   b. Select option 2 to change service contact information.

   c. Verify that the contact information, including the phone numbers, is correct.

___ 5. Enter the command SNDSRVRQS and press the Enter key. If you do not receive the test request complete message, contact your service representative.

How to Set Up Electronic Customer Support

This procedure contains information and instructions on how to access the electronic customer support.

___ 1. Enter the electronic customer support information by performing the following:

   a. Power on the modem that is connected to the electronic customer support feature line.

   b. On the command line of the AS/400 Main Menu, type the following and press the Enter key:

   CALL QESPHONE

   c. The Change Data Area (CHGDTAARA) display appears.

```
Change Data Area (CHGDTAARA)

Type choices, press Enter.

Data area specification:
Data area  . . . . . . . . . . > QESTELE        Name, *LDA, *GDA, *PDA
Library  . . . . . . . . . . > QUSRSYS        Name, *LIBL, *CURLIB
Substring specifications:
Substring starting position  . > 001          1-2000, *ALL
Substring length . . . . . . . > 32           1-2000
New value  . . . . . . . . . . >                              '
```

___ 2. Are you installing this system in the United States?

Yes   **No**

↓   Call your service representative for the IBM service support telephone numbers.

           Go to step 3 of this procedure.

Does the Change Data Area (CHGDTAARA) display have the IBM service support numbers in the *New value* field?

No   **Yes**

↓   Go to step 5 on page E-4.

    3. In the Change Data Area (CHGDTAARA) display, type the <u>primary</u> telephone number in the *New value* field.

       Note: The United States support numbers for the *New value* field are:

          East of the Mississippi River: 18005278207
          West of the Mississippi River: 18003270949

```
Change Data Area (CHGDTAARA)

Type choices, press Enter.

Data area specification:
Data area . . . . . . . . . . > QESTELE        Name, *LDA, *GDA, *PDA
Library . . . . . . . . . . >  QUSRSYS        Name, *LIBL, *CURLIB
Substring specifications:
Substring starting position  . > 001          1-2000, *ALL
Substring length . . . . . . . > 32           1-2000
New value  . . . . . . . . . . > 'SST918005278207                    '
```

Notes:

    a. Do not type spaces or separators as part of the telephone number.

    b. The first four positions of the *New value* field show the connection information:

       • Modem speaker on (SS)

        Note: For the 7857 modem, delete *SS* designation for modem speaker.

        To have the modem speaker off when the *SS* command is not included, change the modem speaker value to "never on." Refer to the modem manual for more information on changing configuration.

       • Tone dialing (T) or pulse dialing (P)

       • Outside line number (for example, 9).

    Press the Enter key.

    4. The Change Data Area (CHGDTAARA) display appears again to allow you to enter the alternate support number.

```
Change Data Area (CHGDTAARA)

Type choices, press Enter.

Data area specification:
Data area . . . . . . . . . . > QESTELE      Name, *LDA, *GDA, *PDA
Library . . . . . . . . . . > QUSRSYS       Name, *LIBL, *CURLIB
Substring specifications:
Substring starting position . > 001          1-2000, *ALL
Substring length . . . . . . > 32            1-2000
New value . . . . . . . . . . > 'SST918003270949            '
```

Type the <u>alternate</u> support telephone number in the *New value* field and press the Enter key.

___ 5. Press the Exit key (PF3) as many times as necessary to return to the AS/400 Main Menu.

___ 6. On the command line of the AS/400 Main Menu, type CHGMSGQ QSYSOPR *BREAK and press the Enter key.

Note: The QSYSOPR message queue is in break mode, therefore, informational messages may appear on the display as you perform the remaining tasks.

If the Display Messages display appears, read the messages and follow the instructions. If a message needs a reply, *C* (cancel), *I* (ignore), or *R* (retry) appears at the end of the message. For more information about messages, see the "Handling Messages" section in the *Basic System Operation, Administration, and Problem Handling*, SC41-5206, book.

___ 7. On the command line of the AS/400 Main Menu, WRKCNTINF and press the Enter key.

a. The Work with Support Contact Information display appears.

```
Work with Support Contact Information
System: XXXX

Select one of the following:

1. Work with question and answer (Q & A) database
2. Work with local service information
3. Work with IBM product information
4. Work with technical information exchange (TIE)
5. Work with upgrade order information
6. Work with service providers
```

Select the *Work with Service providers* option and press the Enter key.

b. The Work with Service Providers display appears.

```
Work with Service Providers
System:   XXXXXXXX

Position to  . . . . .              Control point
Network ID . . . . .

Type options, press Enter.
1=Add   2=Change   3=Copy   4=Remove   5=Display

Control
Opt    Point          Network ID    Description

2     *IBMSRV                       IBM Service Support
_     USASYSPEP      APPN           System PEP
```

Type a 2 (Change) in the *Opt* field on the same line as *IBMSRV information.

Press the Enter key.

c. The Change Service Provider display appears.

```
Change Service Provider
System:   XXXXXXXX
Control point . . . . . . . . :    *IBMSRV
Network ID  . . . . . . . . :
Description . . . . . . . . . :    IBM Service Support

Type changes, press Enter.

Service support center telephone numbers:
Hardware service  . . . . . . .    1-800-426-7378
Software service  . . . . . . .    1-800-237-5511
```

If you are installing this system in the United States, type the following on the Change Service Provider display:

Hardware service: 1-800-426-7378
Software service: 1-800-237-5511

If you are not installing this system in the United States, call your service representative for the service telephone numbers.

Press the Enter key.

d. The Work with Service Providers display appears again, with the message: Information for service provider *IBMSRV changed.

Press F12(Cancel) as many times as necessary to return to the Work with Support Contact Information display.

e. Select the option to work with local service information on the Work with Support Contact Information display.

f. The Work with Local Service Information display appears.

```
Work with Local Service Information
System:   XXX
Select one of the following:

1. Display service contact information
2. Change service contact information
```

Select the Change service contact information option.

g. The Change Service Contact Information display appears.

```
Change Service Contact Information
System:   XXXXXXXX

Type changes, press Enter.

Company . . . . . . . . . .   A S JOURNEY, INC
Contact . . . . . . . . . .   N A VIGATOR
Contact telephone numbers:
Primary . . . . . . . . .   1-444-1234567
Alternative . . . . . . .   1-444-1234589
Fax telephone numbers:
Primary . . . . . . . . .   1-444-1234590
Alternative . . . . . . .
Mailing address:
Street address  . . . . .   999 Yellowbrick Rd.


City/State  . . . . . . .   Big Green, KS
Country . . . . . . . . .   USA
Zip code  . . . . . . . .   000000000000

F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel
```

Type the customer information. Page forward to the next display.

h. The following display appears:

```
System:   XXXXXXXX

Type changes, press Enter.

National language version     2924   F4 for list
Media for mailing PTFs  . .   1      1=Automatic selection
2=Half inch reel, 1600 bpi
3=Half inch reel, 6250 bpi
4=Half inch cartridge
5=8 MM cartridge
6=Quarter inch cartridge
7=Quarter inch mini cartridge
8=CD-ROM
```

i. Enter the correct information in the *National language version* and *Media for mailing PTFs information* fields.

   Note: Press the Help key for more information about the *Media for mailing PTFs* field.

   Press the Enter key.

j. The Work with Local Service Information display appears with the following message:

   Data area QSSF created in library QUSRSYS.

   Note: If the contact information had been created previously and you change it, the following message appears: Support contact information updated.

k. Press F3 (Exit).

__ 8. You have completed entering the information for the electronic customer support remote services. Go to the next step.

__ 9. Test the electronic customer support remote services.

   This section contains instructions on how to perform the following tests:

   • Connection/Registration test

   • Operating System Preventive Service Planning (PSP) test

Ensure that you have entered the remote service information before you perform this procedure.

a. On the AS/400 command line, type `SNDSRVRQS *TEST` and press the Enter key.

b. From the Send Test Request display, press the Enter key to send a test request to the IBM service support system.

   Messages showing the status of the request are shown at the bottom of the display.

c. If the test completes successfully, the AS/400 Main Menu appears with the following message: `Test request complete.`

d. Did the test complete successfully?

   Yes   **No**

   ↓   Note the error message and contact your service representative.

   This ends the procedure.

e. To perform the operating system Preventive Service Planning (PSP) test, type the following on the AS/400 command line: `SNDPTFORD SF98vrm` (where v=Version, r=Release, and m=Modification) and press the Enter key.

f. The Verify Contact Information display appears.

   Press the Enter key to accept the information.

g. The Select Reporting Option display appears.

```
Select Reporting Option
System: XXX
Problem ID . . . . . . . . . :   XXXXXXXXXX
Current status . . . . . . . :   READY
Problem  . . . . . . . . . . :   Preventive service planning information
requested.


Select one of the following:

1. Send service request now
2. Do not send service request
3. Report service request by voice



Selection:
1

F3=Exit     F12=Cancel
```

Select the option to send service request now and press the Enter key.

Messages showing the status of the request will appear at the bottom of the display.

h. To display the PSP cover letter for V4R2M0, type the following on the AS/400 command line: `DSPPTF 5769SS1 SF98420` and press the Enter key.

___ 10. You have completed the test of the electronic customer support remote services.

Press the Enter key.

The AS/400 Main Menu appears.

Using the Media Description Report

The media description report identifies the licensed programs that are contained on each media volume. The report contains the program name, copyright information, the version, release, and modification level, the associated feature number, and the language feature. The report also helps you identify the correct media volume to load.

What to Expect in the Media Description Report

The Media Description Report for licensed programs does not contain entries for Licensed Internal Code, base OS/400, or the cumulative PTF package. (Only priced features of OS/400 appear in the report.)

Many licensed programs, including OS/400, include optionally installable parts with the base product for no additional charge. The no-charge options do not have separate entries in the report. Some licensed programs, including OS/400, may also have optional parts that are priced features. If you ordered priced features of licensed programs, you will see separate entries for these features in the report. Priced features have the same program ID as their base product,but they have a different feature number.

The format of the report and the amount of detail included varies with the location that created the distribution media (North America, Europe, Asia). Some countries have only one entry for each licensed program or priced feature included in the order. Others, including the U.S., may have multiple entries that distinguish between the program and national language information of a licensed program.

Terminology Clarification: Software products have unique 7-character identifiers. (For example, 5769-SS1 identifies the new release of Operating System/400.) As you verify your software media, you will see many names for this identifier. Some of the names and the places where you could see them are listed:

Resource ID The Display Software Resources (DSPSFWRSC) command uses this name.

Licensed Program ID The installation process uses this name. This appears on displays when you use the Work with Licensed Programs menu (LICPGM) or the related commands for saving, restoring, and deleting licensed programs.

Program Number This is used in the Media Description Report in some countries.

Base Program This is used in the Media Description Report in some countries.

Appendix F. Disk Configuration Warning and Error Messages

You see a Disk Configuration Warning or Error Report when your system detects errors or warning conditions in your disk configuration. Following is an example:

```
Disk Configuration Warning Report

Type option, press Enter.
5=Display Detailed Report

Press F10 to accept all the warnings and continue the IPL.
The system will attempt to correct the warnings.

OPT  Warning
 _     XXXXXXXX XXXX XXXXXXXXX XXXXX XX XXXXX XXXXXXXX
 _     XXXXX_XX_XXXXX XXXXXX_ XXXXXXXX XXXXXXX XXXXXXXXXX_____
 _     _____
 _     _____
 _     _____
 _     _____
 _     _____
 _     _____
 _     _____
More...

F3=Exit to use Dedicated Service Tools (DST)
F10=Accept warnings and continue the IPL
```

You may see this display immediately after the hardware upgrade procedure or while you are installing the operating system.

The action you should take for each message depends on the upgrade method that you are using. Table F-1 on page F-2 lists the messages that you might see on the display and the actions that you should take.

For each message, you can select option 5 (Display Detailed Report) to see more information about why the message occurred and what possible actions are available.

Note: **Attention–Using Option 1?**When you are installing the Licensed Internal Code by using option 1 from the Install the Licensed Internal Code (LIC) menu, disk configuration warning messages may mean that the system will not be able to recover its ability to access the data on your disk units. Please do not ignore these messages or attempt to resolve them without consulting the table. An incorrect response will probably require you to reload your data.

Disk Configuration Messages

Table F-1 (Page 1 of 2). Disk Configuration Warning Messages	
	Your Action
Warning Messages	**Option 1 (Restore Licensed Internal Code)**
Disk unit not formatted for optimal performance	Do the following: 1. Type a 5 (Display Detailed Report). 2. Write down which disk units should be reformatted. 3. Press F12 to return to the warning report display. 4. Press F10 to accept the warning and continue. You cannot reformat the disk units during the upgrade procedure.
Unit possibly configured for PowerPC AS	Contact software support before you proceed.
Unit possibly configured for IMPI	Contact software support before you proceed.
Missing disk configuration	Contact hardware support before you proceed.
Unknown load source status	Contact hardware support before you proceed.
Load source failure	Contact hardware support before you proceed.
Restore load source	Contact software support before you proceed.
Missing disk units in the configuration	Contact hardware support before you proceed.
Restore in progress	View the online information and take the appropriate recovery action.
Device parity protected units in exposed mode	You have a failed unit in a parity set. You can ignore this message and continue the upgrade procedure. However, you should contact hardware support immediately after the upgrade procedure.
No alternatives available	Contact software support before you proceed.
New disk configuration	Contact software support before you proceed.
Incorrect Licensed Internal Code installed	Contact hardware support before you proceed. The load source unit and its mirrored pair may be configured incorrectly.
Change Load Source location.	Contact hardware support before you proceed. Your load source unit may be configured incorrectly.
Bad load source configuration.	

Table F-1 (Page 2 of 2). Disk Configuration Warning Messages	
	Your Action
Warning Messages	**Option 1 (Restore Licensed Internal Code)**
Overflowed ASPs	Wait to correct the problem until after the upgrade process is complete. The *Backup and Recovery*, SC41-5304, book describes how to reset an overflowed ASP.
Lower level of protection	Ignore during the installation procedure. However, you should analyze your mirrored configuration after the installation procedure.

Disk Configuration Messages

Appendix G. National Language Version Feature Codes

Use this appendix to locate the appropriate feature code for your primary or secondary language.

Table G-1 (Page 1 of 2). Feature Codes

Primary Language Feature Code	Secondary Language[1] Feature Code	National Language
Note:	Labels on the installation media indicate the feature code for the primary language. When you install OS/400, the system prompts for the primary language in the form 29xx. The secondary language feature code is only used when ordering secondary languages. When you install the secondary language, you select a feature code, in the form 29xx, from a list of national language feature code identifiers. For example, if you ordered French as a secondary language, the secondary language media volume would be labeled N2928 and you would select 2928 from the list of feature codes when you install the secondary language.	
2902	5502	Estonian
2903	5503	Lithuanian
2904	5504	Latvian
2905	5505	Vietnamese
2906	5506	Lao
2909	5509	Belgian English
2911	5511	Slovenian
2912	5512	Croatian
2913	5513	Macedonian
2914	5514	Serbian Cyrillic
2922	5522	Portuguese
2923	5523	Dutch Netherlands
2924	5524	English
2925	5525	Finnish
2926	5526	Danish
2928	5528	French
2929	5529	German
2931	5531	Spanish
2932	5532	Italian
2933	5533	Norwegian
2937	5537	Swedish
2938	5538	English Uppercase Support for Double-Byte Character Set (DBCS)
2939	5539	German Multinational Character Set
2940	5540	French Multinational Character Set
2942	5542	Italian Multinational Character Set
2950	5550	English Uppercase
2954	5554	Arabic
2956	5556	Turkish
2957	5557	Greek
2958	5558	Icelandic
2961	5561	Hebrew
2962	5562	Japanese Double-Byte Character Set (DBCS)
2963	5563	Belgian Dutch
2966	5566	Belgian French
2972	5572	Thai
2974	5574	Bulgarian
2975	5575	Czech
2976	5576	Hungarian
2978	5578	Polish
2979	5579	Russian

Primary Language Feature Code	Secondary Language[1] Feature Code	National Language
2980	5580	Brazilian Portuguese
2981	5581	Canadian French
2984	5584	English Uppercase and Lowercase Support for Double-Byte Character Set (DBCS)
2986	5586	Korean Double-Byte Character Set (DBCS)
2987	5587	Traditional Chinese Double-Byte Character Set (DBCS)
2989	5589	Simplified Chinese Double-Byte Character Set (DBCS) (PRC)
2992	5592	Romanian
2994	5594	Slovakian
2995	5595	Albanian
2996	5596	Portuguese Multinational Character Set
2998	5598	Farsi

Appendix H. Alternate Installation Device-Overview

Function in V4R2M0 allows you to perform installation and recovery procedures by using a combination of devices. Previously, these types of activities could only be performed using devices that were attached to the first system bus. (The first system bus connects to the service processor IOP. Typically this is where the optical device or tape devices that is used for installations are attached.) Now, you can use a combination of devices that are attached on the first system bus and on additional buses. The alternate installation device is not attached to the first system bus.

If you use this function, the system uses existing support (a device on the first system bus) to install or recover enough of the Licensed Internal Code required to perform an IPL with IPL-type D. Then, using the new alternate installation device support, the system continues the operation using media in the alternate installation device. This function supports installation and recovery from tape media, such as SAVSYS or distribution tapes which you created, that contain Licensed Internal Code and may contain the operating system, licensed programs, and data.

Some models, typically with attached 3590 tape devices, may see a performance improvement when using an alternate installation device for save operations.

Install and Recovery Implications for Models 600 and 620

The alternate installation device function can be used for any installation or recovery that requires replacing Licensed Internal Code. Some models may require that an alternate installation device be used to install distribution tapes created by a central site or to recover using a SAVSYS tape.

In Models 600 and 620, the input-output processors (IOP) to which certain older tape devices attach require an expansion unit in order to use the devices. The following tape devices are affected: 2440, 3422, 3430, 9347, 3480, some models of 3490, and 7208-002. Other 7208 models and 3490 models Exx, C11, and C22 are supported without an expansion unit. 3490 models C1A and C2A can be converted to SCSI format which is supported without an expansion unit. If you want to use these older tape devices as alternate installation devices on models 600 and 620, you need the expansion unit and you need to set them up as alternate installation devices.

How to Set Up an Alternate Installation Device

Before you use an alternate installation device, you must ensure that it is defined on a bus other than system bus 1, and you must enable the device. You need to record and keep the logical address of the system bus and system card at which the alternate installation device is attached. If you have the device set up on different bus and you do not have this information, you will not be able to complete installations or recoveries.

If you change the configuration of your system, you need to ensure that this information is correct before you start to use the alternate installation device.

Do the following to set the addresses and enable the alternate installation device:

H-1

Note: You need to know the password for Dedicated Service Tools to perform this procedure.

__ 1. Place the CD containing the V4R2M0 Licensed Internal Code into the optical device.

__ 2. Use the control panel to set the mode to **Manual**. Then perform an IPL by using the Power Down System (PWRDWNSYS) command: `PWRDWNSYS *IMMED RESTART(*YES) IPLSRC(B)`.

__ 3. When the IPL or Install the System display appears, select option 3 (Use Dedicated Service Tools (DST)) and press the Enter key.

__ 4. The Dedicated Service Tools (DST) Sign On display appears.

```
                      Dedicated Service Tools (DST) Sign On
                                                  System:   SYSTEMA
 Type choices, press Enter.
   DST user . . . . . . . . . . . .   QSECOFR
   DST password . . . . . . . . . .   _____
```

Sign on using the QSECOFR user profile.

__ 5. The Use Dedicated Service Tools (DST) display appears.

```
                      Use Dedicated Service Tools (DST)
                                                  System:   SYSTEMA

 Select one of the following:

      1. Perform an IPL
      2. Install the operating system
      3. Work with Licensed Internal Code
      4. Work with disk units
      5. Work with DST environment
      6. Select DST console mode
      7. Start a service tool
      8. Perform automatic installation of the operating system
      9. Work with save storage and restore storage
     10. Work with remote service support




 Selection   5


 F3=Exit   F12=Cancel
```

Type a 5 (Work with DST Environment) and press the Enter key.

__ 6. The Work with DST Environment display appears.

```
                        Work with DST Environment
                                                  System:   SYSTEMA
Select one of the following:

        1. Work with active service tools
        2. Select output printer
        3. Cancel printer output
        4. Cancel printer output and deallocate printer
        5. Select tape
        6. Cancel tape operation and deallocate tape
        7. Select diskette
        8. Cancel diskette operation and deallocate diskette
        9. Select CD-ROM
       10. Cancel CD-ROM operation and deallocate CD-ROM
       11. Change DST user profiles
       12. Work with system values
       13. Work with alternate installation device


Selection   13



F3=Exit    F12=Cancel
```

Select option 13 (Work with alternate installation device) and press the
Enter key.

__ 7. The Select Alternate Installation Device display appears.

```
                     Select Alternate Installation Device
                                                  System:   SYSTEMA
Type option, press Enter.
  1=Select    5=Display details


            Resource                        Serial
Option      Name        Type     Model      Number        Selected
    5       TAP02       3490     C11        00-00000          *
    _       TAP03       3490     C11        00-00000
```

Type a 5 (Display) next to the resource you want and press the Enter key.

__ 8. The Display Device Details display appears.

```
                          Display Device Details
                                                  System:   SYSTEMA
Resource                        Serial
Name          Type     Model    Number
TAP02         3490     C11      00-0000000

Physical location:
   Location text . . . . . . . :
   Frame ID  . . . . . . . . . :
   Card slot . . . . . . . . . :

Logical address:
 SPD bus:
   System bus  . . . . . . . . :   0002
   System board  . . . . . . . :   0000
   System card . . . . . . . . :   0002

 Storage:
   I/O bus number  . . . . . . :   0000
   Controller  . . . . . . . . :   0007
   Device address  . . . . . . :   0000

F3=Exit    F12=Cancel
```

You need to have a record of the addresses assigned to the alternate installation device for instaling and recovering your system. Record the following information:

Type/Model: _____ System bus: _____ Serial number: _____
Type/Model: _____ System bus: _____ Serial number: _____
Type/Model: _____ System bus: _____ Serial number: _____

Notes:

a. You may want to repeat this process to record the addresses for all alternate installation devices that appear in step 8 on page H-3.

b. If more than one alternate installation device is defined, only one can be enabled.

Press the Enter key.

__ 9. The Select Alternate Installation Device display appears. Type a 1 (Select) next to the resource you want and press the Enter key.

__ 10. You should see the following message at the bottom of the display:

Alternate installation device enabled

__ 11. Press F3 (Exit) to return to the Use Dedicated Service Tools (DST) display.

__ 12. Press F3 (Exit) again. The Exit Dedicated Service Tools (DST) display appears.

```
                       Exit Dedicated Service Tools
                                                    System:   SYSTEMA
    Select one of the following:

        1. Exit Dedicated Service Tools (DST)
        2. Resume Dedicated Service Tools
```
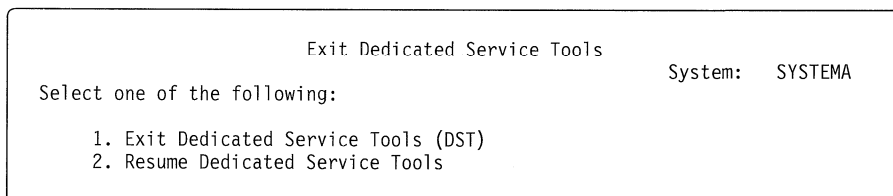
Type a 1 (Exit Dedicated Service Tools (DST)) and press the Enter key.

__ 13. The next display you see is the IPL or Install the System display. Type a 1 (Perform an IPL) and press the Enter key to complete the procedure.

How to Disable an Alternate Installation Device

You may need to disable an alternate installation device for one of the following reasons:

- To continue with an installation using CD-ROM media.

- To enable a different device as an alternate installation device.

- To correct the logical address if hardware has been moved or changed.

__ 1. Use the control panel to set the mode to **Manual**. Then perform an attended IPL by using the command: PWRDWNSYS *IMMED RESTART(*YES) IPLSRC(B).

Note: An alternative to this step is to use the control panel to select function 21. (Dedicated Service Tools). If you use this alternative, the next step is step 3 on page H-5.

___ 2. When the IPL or Install the System display appears, select option 3 (Use Dedicated Service Tools (DST)) and press the Enter key.

___ 3. The Dedicated Service Tools (DST) Sign On display appears. Sign on using the QSECOFR user profile.

___ 4. The Use Dedicated Service Tools (DST) display appears. Type a 5 (Work with DST Environment) and press the Enter key.

___ 5. The Work with DST Environment display appears. Select option 2 (System devices) and press the Enter key.

___ 6. The Work with System Devices display appears. Select option 5 (Work with alternate installation device) and press the Enter key.

___ 7. The Select Alternate Installation Device display appears.

```
                    Select Alternate Installation Device
                                                   System:    SYSTEMA
     Type option, press Enter.
       1=Select   5=Display details


                  Resource                      Serial
     Option       Name        Type    Model     Number        Selected
       _          TAP02       3490    C11       00-00000         *
       _          TAP03       3490    C11       00-00000




       F2=Deselect device    F3=Exit    F5=Refresh    F12=Cancel

```

Press F2 to deselect the device.

___ 8. You should see the following message at the bottom of the display:

Alternate installation device disabled

___ 9. Press F3 (Exit) to return to the Use Dedicated Service Tools (DST) display.

___ 10. Press F3 (Exit) again. The Exit Dedicated Service Tools (DST) display appears. Type a 1 (Exit Dedicated Service Tools (DST)) and press the Enter key.

___ 11. The next display you see is the IPL or Install the System display. Type a 1 (Perform an IPL) and press the Enter key to complete the procedure.

Index

Numerics

Communicating Your Comments to IBM

AS/400e series
Software Installation
Version 4

Publication No. SC41-5120-01

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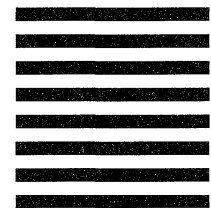Fold and Tape   **Please do not staple**   Fold and Tape

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