IBM

AIX 4.3 to AIX 5L Migration in a CATIA and ENOVIA Environment

Exploring migration methods

Migration planning tips

Checklists included

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Redpaper

IBM

International Technical Support Organization

AIX 4.3 to AIX 5L Migration in a CATIA and ENOVIA Environment

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Preface

This IBM Redpaper is a guide covering the migration of the AIX operating system from AIX Version 4.3 to AIX 5L in a CATIA or ENOVIA environment.

This document was written to guide an AIX administrator through the steps of a migration to AIX 5L, and provides the experiences made during the migration from AIX Version 4.

Professionals wishing to acquire a better understanding of the migration process may consider reading this document. The intended audience includes:

► Customers

► Sales and marketing professionals

► Technical support professionals

► IBM Business Partners

This publication does not replace the latest pSeries and PLM marketing materials and tools. It is intended as an additional source of information that, together with existing sources, may be used to enhance your knowledge of software migration. During the development of this publication, several migrations were performed to successfully verify software migration on different machines and configurations.

At the time of writing, Dassault Systemes AIX 5L support for CATIA and ENOVIA is only on Version 5.1. However, since the support for AIX 5L Version 5.2 is planned for the near future, this documentation can also be used to migrate into a AIX 5L Version 5.2 environment.

For specific information about the differences between AIX releases refer to the *AIX Differences Guide Version 5.2 Edition*, SG24-5765, which describes AIX 5L Version 5.1 and 5.2 enhancements.

The team that wrote this Redpaper

This Redpaper was produced by a team of specialists from around the world working at the International Technical Support Organization, Austin Center, and remote locations.

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Thanks to the following people for their contributions to this project:

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Supported hardware

This chapter provides a brief description of the supported pSeries hardware models for AIX and the hardware supported for CATIA and ENOVIA. To prevent a time-consuming analysis, all implemented workstation and server hardware should be checked for AIX 5L Version 5.1 and AIX 5L Version 5.2 compatibility.

At the time of writing, Dassault Systemes supports AIX 4.3.3 and AIX 5L Version 5.1 for CATIA and ENOVIA.

1.1 Supported hardware for AIX 5L

AIX 5L Version 5.1 runs on most IBM IntelliStation POWER series, IBM RS/6000, and IBM @server pSeries systems. These include the IntelliStation POWER 265 and 275; the pSeries 620, p640, p670, p680, p690; and all models of p610, p615, p630, and p660. The support for AIX 5L Version 5.1 includes RS/6000 Models 150, 170, 260, 270, F50, F80, H50, H70, H80, M80, S70, S7A, S80, and selected older models.

To find out more about supported and unsupported systems, see the Release Notes for AIX 5L Version 5.1 or 5.2. The latest version can be obtained from the IBM @server pSeries Information Center at:

http://publib16.boulder.ibm.com/pseries/en_US/infocenter/base/

The Information Center is an information portal for AIX and pSeries customers. From this site, information can be accessed, such as AIX documentation, hardware documentation, messages database for 7-digit error codes, links to Redbooks, and much more.

AIX 5L Version 5.1 supports various RS/6000 and pSeries models in a 32-bit and 64-bit environment. Three unique hardware architectures are supported:

► Micro Channel Architecture (MCA)

► Power Reference Platform (PreP)

► Common Hardware Reference Platform (CHRP)

As the root user, use the `bootinfo -p` command to determine the architecture of the system.

Table 1-1 lists the possible results of the `bootinfo - p` command depending on the various RS/6000 or pSeries models.

Table 1-1   Different hardware architectures

Hardware architecture	Output received from bootinfo -p command
Micro Channel Architecture	rs6k
Power Reference Platform	rspc
Common Hardware Reference Platform	chrp

The 64-bit kernel requires 64-bit hardware. At the time of writing, the following RS/6000 and pSeries models support a 64-bit kernel:

► IntelliStation POWER Model 265

► IntelliStation POWER Model 275

► RS/6000 7013 Models S70 or S7A

► RS/6000 7015 Models S70 or S7A

► RS/6000 7017 Models S70, S7A or S80

► RS/6000 7025 Models F80

► RS/6000 7026 Models H70, H80 or M80

► RS/6000 7043 Models 260, 270

► RS/6000 7044 Models 170, 270

► @server pSeries 610 Models 6C1 or 6E1

► @server pSeries 615 Models 6C3 or 6E3

- ► @server pSeries 620 Models 6F0 or 6F1

- ► @server pSeries 630 Models 6C4 or 6E4

- ► @server pSeries 640 Model B80

- ► @server pSeries 650 Model 6M2

- ► @server pSeries 655 Model 651

- ► @server pSeries 660 Models 6H0, 6H1 or 6M1

- ► @server pSeries 670

- ► @server pSeries 680 Model S85

- ► @server pSeries 690

At the time of writing, Dassault Systemes AIX 5L support is only for Version 5.1. However, the support for AIX 5L Version 5.2 is planned for the future.

> **Note:** With AIX 5L Version 5.2 all RS/6000 models that are Micro Channel or Power Reference Platform systems are no longer supported.

1.2 Supported hardware for CATIA and ENOVIA

Dassault Systemes supports different processor architectures for RS/6000, IntelliStation POWER series, and pSeries. These include the PowerPC 604e, POWER2, POWER3, and POWER4.

Different graphic accelerators are supported along with the workstation hardware, such as the GXT2000P, GXT3000P, GXT4000P, GXT4500P, GXT6000P, and GXT6500P, to name several.

Refer to the latest program directories of the various CATIA and ENOVIA products for a list of the hardware requirements. The program directories can be obtained from:

http://techsupport.services.ibm.com/engineering/techknow?expanded=catiacfg#catia

1.3 Supported software levels for CATIA and ENOVIA

Table 1-2 lists a brief overview of the minimum required software levels for CATIA.

Table 1-2   Minimum required software levels for CATIA

Hardware	AIX level	Compiler/runtime level	Additional PTFs
IntelliStation POWER 275 (9114-275) workstation	AIX 5L Version 5.1 ML 04 or higher	C Set ++ Runtime for AIX 5.0 at level 6.0.0.1 XL Fortran Runtime Environment at 7.1.1.3	IY45738 - Pointer Markers Disappear In CATIA
pSeries 630 Model 6E4 (7028-6E4) workstation	AIX 5L Version 5.1 ML 03 or higher	C Set ++ Runtime for AIX 5.0 at level 6.0.0.1 XL Fortran Runtime Environment at 7.1.1.3	IY35110 - Shared Lib Segment Nearly Full Can Crash System IY37937 - VEOTEXTURE Application Hangs When Using Multiple Textures

Hardware	AIX level	Compiler/runtime level	Additional PTFs
Any other PowerPC 604e or POWER3 workstation	AIX Version 4.3.3 ML 06 or higher or AIX 5L Version 5.1 ML 02 or higher	C Set ++ Runtime for AIX 4.3 at level 4.0.2 XL Fortran Runtime Environment at 5.1.0 or 5.1.1	

Table 1-3 lists the minimum required software levels for ENOVIA.

Table 1-3   Minimum required software levels for ENOVIA

Hardware	AIX level	Compiler/runtime level
POWER4+ server	AIX 5L Version 5.1 ML 04 or higher	C Set ++ Runtime for AIX 5.0 at level 6.0.0.1 XL Fortran Runtime Environment at 7.1.1.3
POWER4 server	AIX 5L Version 5.1 ML 02 or higher	C Set ++ Runtime for AIX 5.0 at level 6.0.0.1 XL Fortran Runtime Environment at 7.1.1.3
Any other PowerPC 604e or POWER3 server	AIX Version 4.3.3 ML 06 or higher or AIX 5L Version 5.1 ML 02 or higher	C Set ++ for AIX Application Runtime 5.0.2.7 XL Fortran Runtime Environment for AIX at minimum level 5.1.0, 7.1.0, or 7.1.1

Refer to the latest program directories of the various CATIA and ENOVIA products for a list of the software requirements.

Provided are the base minimum required software levels for CATIA and ENOVIA. However, we recommend installing the latest available AIX maintenance package as additional service. At the time of writing, AIX 5100-05 maintenance package (IY48486) is available.

If you have dependencies with other software applications, ensure that you install at least the minimum level.

2

Migration methods

This chapter provides an introduction to migration and explains why customers should migrate to AIX 5L. The following different migration methods are described in detail:

► Migration installation

► New or complete overwrite installation

► Preservation installation

This chapter also describes the various resources that can be used for a migration, such as CD-ROM, Network Installation Management, or alternate disk.

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2.1 Definition of migration

The term *migration* is defined in the information technology field as the change of one operating environment for another. This can involve moving to new hardware, to new software, or both.

In the way it is used in this document, migration is defined as an upgrade of an operating system (OS), but although the words upgrade and migration are often used interchangeably, there is a difference:

- ► An *upgrade* refers to an addition to an existing system. This could be the installation of a Programming Temporary Fix (PTF) or maintenance level within a particular release of AIX.

- ► The term *migration* for this document means to move the software of a system environment from one AIX version or release to a different one; in our case, from AIX Version 4.3 to AIX 5L Version 5.1.

  The new OS version that is installed replaces the existing operating system, removing software that is no longer used and installing new software that enhances the usability of the upgraded system. The new release also provides a new revised kernel. AIX 5L provides either 32-bit or 64-bit kernels.

The difference between a migration and a complete overwrite installation is that the root volume group is kept with all of its file systems except /tmp, which is deleted and rebuilt while migrating.

There is a third way to install the operating system, which is the preservation installation. It only keeps the /home directory with the user files but overwrites the other file systems of the root volume group.

2.2 Reasons to migrate

This section is intended to answer the first question you should ask when we try to convince you to migrate to AIX 5L:

"This sounds like a lot of work and expense. Why should I? What's in it for me?"

The answer has two parts:

- ► If your environment is stable and you do not intend to make any changes or additions whatsoever in the future, you could stay with your current version of AIX. But, if you want to take advantage of the new AIX 5L function, such as online backups, a migration is worth it.

- ► Since AIX 4.3.3 was withdrawn from marketing (WDFM) in June 2003 and from service (WDFS) December 31, 2003, there is a valid reason to migrate in a CATIA or ENOVIA environment. After December 31, 2003 there is no direct method to receive defect support.

2.3 Migration methods

The following section describes the various migration methods and their advantages and disadvantages. To provide a complete overview about the migration methods, we also describe the preservation installation. Based on our customer experiences, we see the migration installation or new and complete overwrite installation as the preferred methods to move to AIX 5L.

2.3.1 Migration installation

Migration installation is the default method to move from AIX 3.2 or any release of AIX Version 4 to AIX 5L. During a migration, the installation process determines which optional software products are installed on the existing version of the operating system. Any configuration file that cannot be migrated will be saved in a specific directory under /tmp. System messages will inform you of the location of the saved files. Information will also be stored in the system installation log /var/adm/ras/devinst.log.

The migration process attempts to preserve all user configuration, while moving the operating system to a new level of software.

The advantage of a migration installation compared to a new and complete overwrite is that many files are preserved. This includes almost all directories, such as /home, /var, /usr, the root volume group, logical volumes, system configurations, and previously installed software. The only file system that will be refreshed after the migration is /tmp. You can easily avoid losing information you have stored in this directory by copying the important information to another directory before the migration and move it back afterwards. Additionally, after the migration, you can import your user volume groups. It is probably the easiest way to upgrade your system to AIX 5L while maintaining all customized information and configuration. Another migration advantage, especially if you need to minimize the downtime of your system, is that there are fewer reconfiguration tasks to perform when the migration process has completed.

If an application has the requirement to use a large file system in a server environment (up to 32 TB) you must use the JFS2 file system, which was introduced with AIX 5L. By doing a migration installation to move from AIX 4.3.3 to AIX 5L, existing JFS file systems cannot be converted to JFS2 file systems. This is only possible for new and complete overwrite and preservation installations. If installed graphics software support or other additional software, selected from the installation menu during an overwrite installation, this option is not available at migration installation time. However, after the migration is completed, you can select additional filesets to install from various CDs or, alternatively, you can prepare software resources over the network before migrating your system and install them after the migration process completes.

> **Note:** After a migration installation, if you want to install the next recommended maintenance level of AIX, use the SMIT update_all fast path or the `install_all_updates` command to update the filesets currently installed.

2.3.2 New and complete overwrite installation

The new and complete overwrite installation should be used to install AIX 5L Version 5.1 on a new system or on a system on which you do not wish to preserve the existing version of AIX, its configuration, and possibly some of the user data. The main advantage of this method is that your resulting AIX 5L Version 5.1 installation is cleaned of obsolete data. On the other hand, the system will need to be reconfigured. The complexity of your installation will determine the amount of additional work required. This work must be evaluated before choosing such a method.

User-defined volume groups (non-root volume groups) will be preserved and will remain there after the new installation. You should import these volume groups and mount the file systems created on them.

Following are some of the tasks you might perform, based on your specific environment, when selecting a new and complete installation.

- ► Set the system date and time for your time zone.
- ► Set a root user account password to restrict access to system resources.
- ► Confirm or change the install device you want to use for installing additional software. The device may be a CD-ROM, a tape drive, or a local or remote directory.
- ► Check the system storage and paging space needed for installing and using additional software applications.
- ► Set your National Language Support (NLS) environment.
- ► Import user-defined volume groups.
- ► Create user accounts and passwords.
- ► Install third-party device drivers (for example, LAN printer server).
- ► Set your system network configuration (if applicable).
- ► Create local and remote terminals.
- ► Configure local and remote printers.
- ► Install and configure additional LPPs.
- ► Install and configure third-party software.

This method can be suitable for a stand-alone system with a simple configuration.

2.3.3 Preservation installation

Preservation installation was the default installation method of the Base Operating System (BOS) for systems running AIX Version 3.1. Since AIX Version 3.2, the migration installation is the default and recommended method. However, there is still the option to migrate to AIX 5L by using the preservation installation method.

With a preservation installation, the contents of /usr, /, /var, and /tmp will be deleted. The process will save the previous paging space and dump device, /home, and other user-created file systems in rootvg.

User-defined volume groups (non-root volume groups) will be preserved and activated automatically after the preservation installation completes. Before mounting the file systems belonging to these user-defined volume groups, you need to recreate the file systems′ mounting directories that were removed during the installation (directories under / or /usr, for example).

Configuration files, with the exception of /etc/filesystems, will be deleted. If you want any additional configuration files to be saved during the preservation installation, you must edit the /etc/preserve.list file on your existing AIX system, and add the full path names of the configuration files you want to save. There must be sufficient disk space in the /tmp file system to store the files listed in the /etc/preserve.list file.

2.4 Migration sources

The following sections give an overview about the various sources that can be used for the migration.

2.4.1 AIX and compiler CDs

Installation CDs are required for a migration, even if used as the base installation media or used to set up a Network Installation Management (NIM) server. All appropriate CDs are required, including the AIX 5L base operating, compiler, and other software products.

2.4.2 Network Installation Management

Network Installation Management (NIM) is a component of the AIX operating system and is an excellent tool for teams or companies that have a need to install, clone, or upgrade many RS/6000 or pSeries machines with the same images at the same time.

All the migration methods discussed in the previous section (migration installation, new and complete overwrite installation, preservation installation) can also be done through a network by using NIM. The primary difference is that a NIM server is used instead of an installation device (CD-ROM or tape drive).

In order to perform a migration installation using a Local Area Network (LAN), NIM must be installed and configured on a server running AIX 5L. The installation resources, a SPOT (shared product object tree), and the pSeries to be migrated will have to be defined as objects on the NIM server environment.

Installation resources have to be allocated to the system objects, and then the chosen installation method can be performed from the NIM server. A migration installation using NIM is suitable for migrating multiple LAN-connected systems.

For more information about NIM and how to set up a NIM environment refer to the *AIX 5L Version 5.1 Network Installation Management Guide* located on the AIX Documentation CD; *NIM: From A to Z in AIX 4.3*, SG24-5524; or *AIX Version 4.3 to 5L Migration Guide*, SG24-6924.

2.5 Alternate disk migration

An option to migrate your existing AIX Version 4.3.3 to AIX 5L with as little downtime as possible is the alternate disk migration installation. An additional spare disk is required for this process. The only administrative task is to prepare the NIM server with the necessary filesets and then initiate the process of alternate disk migration by using the `nimadm` command. The procedure behind this command is a mixture of cloning the rootvg and using Network Installation Management (NIM). It is done by your server automatically and involves several steps. AIX creates a copy of the root volume group on a free disk in your system. Simultaneously, this disk is migrated to AIX 5L while your original AIX Version 4.3 system is still running as normal.

An advantage is that your downtime is reduced because you migrate the system while it is still running and functioning. A simple reboot is required to start the new system. Another advantage is that if the migration installation on your cloned rootvg fails, the changes made from the migration are only made to the copy of the rootvg. You can either clean up the failed migration or redo the entire process, including making a copy of the rootvg again. The only impact to your running production system may be a small performance decrease on your active rootvg during the cloning due to increased disk I/O and CPU usage.

This option is suitable for a server with a spare disk, which not all workstations have available.

3

Planning the migration

This chapter documents the existing production environment to ensure a straightforward migration process of AIX Version 4.3 to AIX 5L Version 5.1. Careful planning and detailed documentation will provide a successful migration and a minimal downtime of workstation and servers.

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3.1 Shell scripts

With AIX 5L, there are a few functional enhancements of ksh, the Korn shell. The default shell is still /usr/bin/ksh. It is hard linked to /usr/bin/psh, /usr/bin/sh, and /usr/bin/tsh. It is an implementation of the 1988 version of the Korn Shell, enhanced to be POSIX compliant. In addition to this shell, an unmodified version of the 1993 version of ksh is supplied as /usr/bin/ksh93. This version is also POSIX compliant. For a detailed description of the enhancements, refer to the KornShell Web site at:

http://www.kornshell.com

One important issue is that the shell attribute is changed to the root user. In AIX Version 4.3 it is /bin/ksh, which means it relies on the link between /bin and /usr/bin. This could lead to boot problems because of the unavailability of a shell. The new shell attribute is /usr/bin/ksh. This means that as part of your migration task, you need to verify the compatibility of your shell scripts.

3.2 CDE or TCL/Tk

To prepare the new AIX 5L environment for the workstation, all user-created Shell scripts, CDE (Common Desktop Environment) enhancements, or TCL/Tk (Tool Command Language/ Toolkit) programs should be transferred to a new installed AIX 5L machine for verification. Depending on the complexity and history of the programs, additional filesets are needed to install, for example, compatibility libraries for X11R5 or older versions.

For user-written C, C++, or FORTRAN programs a functionality check is required to ensure that all required libraries are installed on the machine. It is also a good time to recompile the source programs in the new AIX 5L environment.

During the verification process, it is a good time to define a specific environment to store all necessary software in a common installation filetree. In our example the path /usr/mylpp represents a single file system with several subdirectories for different purposes. The advantage in using this environment is that all programs are located in a common path and for future changes the entire file system could be replaced. See Table 3-1.

At the end of all installation and verification tasks, the migrated machine represents the "master client" or the "reference client". All future changes will be checked on the "master or reference client" before distribution of updates to other servers.
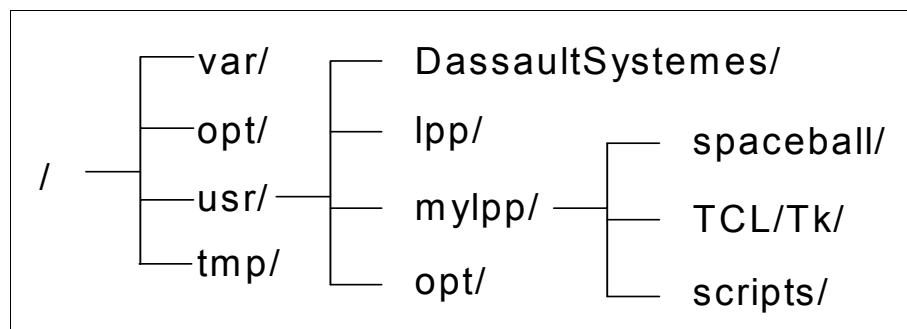
Figure 3-1   Common filetree example

3.3 Microcode

An important task is to identify the current microcode level of all workstations and servers. For the use of AIX 5L and future releases a required microcode level for processors and adapters are absolutely necessary. To examine the newest microcode level, visit the Web at:

http://techsupport.services.ibm.com/server/mdownload

To determine the currently installed firmware level, read the documentation for the appropriate hardware system. For example, use the following AIX command for checking the firmware level of the IntelliStation POWER 275:

```
lscfg -vp | grep -p Platform
```

This command will produce a system configuration report similar to the following:

```
    Platform Firmware:
        ROM Level.(alterable).......3F030703
        Version.....................RS6K
        System Info Specific.(YL)...U1.18-P1-H2/Y2
      Physical Location: U1.18-P1-H2/Y2
```

The ROM Level line lists the level of the currently installed firmware. In the example, the current firmware level is 3F030703.

At the time of writing, Table 3-1 and Table 3-2 provide an overview of the latest microcode levels available for download. Periodically a check for revised microcode levels should be done to ensure a stable environment.

Table 3-1   Actual workstation microcodes

Workstation	Last updated	Version
7043-140	2003/01/24	TIG02316
7043-150	2003/09/17	TCP03126
7044-170	2003/09/03	SPH03232 + sh030819
7043-260	2003/05/12	SPX03021 + px020627
7044-270	2003/09/03	SPH03232 + sh030819
7028-6E4	2003/09/03	3R030718
9112-265	2003/09/03	CLT03210 + ct030818
9114-275	2003/09/29	3F030829

Table 3-2   Actual server microcodes

Server	Last updated	Version
7025-F50	2003/11/04	L03273 + wc010611
7025-F80, 7025-6F0, 7025-6F1	2003/09/29	CL030829
7026-H70	2003/07/10	SST03115 + ss020419
7026-H80, 7026-6H0, 7026-6H1	2003/09/29	CL030829
7038-6M2	2003/09/29	3K030916

3.4 IBM ℮server pSeries Customer-Managed Microcode

The pSeries and RS/6000 Customer-Managed Microcode is a methodology that allows you to manage and install microcode updates on pSeries and RS/6000 systems, and associated I/O adapters.

The Microcode Update Application is the primary tool to use (for customers using AIX 5L Version 5.1 and Version 5.2). It is a different concept from the microcode distribution, and this application exists on systems that are considered standalone (no HMC attached) or HMC controlled. The Microcode Update Application executes a microcode survey process to determine if there is a microcode update for the system. The distribution methods used for microcode fixes have become more flexible. The traditional distribution method has been by the IBM Service Support Representative delivering a diskette. Customers for some pSeries and RS/6000 systems now have the option of downloading the microcode from the Web. With the Microcode Update Application, you will be able to survey, receive, distribute, and install microcode through the Internet or by CD-ROM. The Microcode Update Application tool for AIX 5L Version 5.1 and Version 5.2 or later will allow you to get the latest microcode available from three different repositories:

► If you have access to the Internet, the tool will access the pSeries and RS/6000 Microcode Update Web site, which contains the latest level of microcode.

► You can order the Microcode Update Files and Discovery Tool V1.1 on CD, which will have the latest level microcode. You can also use this tool to survey, report, and retrieve microcode directly from the CD without having to connect to the Internet.

► You can FTP to and from another machine or site that you may have downloaded the latest level of microcode to for temporary storage or test purposes, for example.

For more detailed information visit the IBM Microcode Web Site:

http://techsupport.services.ibm.com/server/mdownload

3.5 Installation preparation

To avoid a break in the planning and installation phase, it is important to have all the necessary equipment checked and available. Figure 3-3 provides a list of the required material to have on hand prior to an installation. It is in the form of a checklist.

Table 3-3   Required material

Description	OK
Latest microcode (see "Microcode" on page 13)	
CDs labeled Microcode Update Files and discovery Toll V1.1, LCD4-1170	
CDs labeled AIX 5L for POWER V 5.1 5765-E61 (Volume 1-5), LCD4-1061	
CDs labeled AIX 5L for POWER V 5.1 Bonus Pack 5765-E61 (Volume 1-3), LCD4-1062	
CDs labeled AIX 5L for POWER V 5.1 Expansion Pack 5765-E61, LCD4-1079	
CDs labeled AIX 5L for POWER V 5.1 Documentation CD 5765-E61, LCD4-1064	
CDs labeled AIX Toolbox for Linux Applications for POWER Systems, LCD4-1077	
AIX Maintenance level CD set (APAR IY48486 AIX 5100-05 Recommended Maintenance Package)	
Individual PTF CD (if required)	

Description	OK
FORTRAN CD (Runtime and Compiler) and PTF set	
C++ CD (Runtime and Compiler) and PTF set	
Installation bundle for AIX 5L Version 5.1 (see "AIX 5L Version 5.1 Bundle" on page 39)	
Workstation checklist (see Appendix B, "Checklists" on page 43)	
Individual software (local shell scripts, TCL/Tk, CDE, and so on)	
Tapes for system backup (4 mm or 8 mm)	

3.6 AIX and compiler runtime download Web sites

In some cases you need to order or download general AIX PTFs. CATIA and ENOVIA also require specific FORTRAN and C++ Run Time Environment levels. These filesets are available for download from the Web, as shown in the next sections.

3.6.1 AIX fix delivery center

In order to get PTFs for AIX there is a comprehensive fix delivery service for pSeries systems running AIX or Linux. This new service makes it easier to find both software fixes and hardware microcode updates. Fix Central consolidates existing pSeries fix-delivery interfaces. Refer to the following link to access the fix delivery center:

http://www-912.ibm.com/eserver/support/fixes/fcgui.jsp

3.6.2 FORTRAN

To download the FORTRAN runtime environment at level 7.1.1.3 refer to the following link:

http://www.ibm.com/servers/eserver/pseries/solutions/plm/plm_download.html

3.6.3 C++ runtime

To download the C++ runtime environment at levels 5.0.0.2 or 6.0.0.0 refer to the following link:

https://techsupport.services.ibm.com/server/aix.fixsearch51

Once you are on this site, change the content in the search field from "Fileset or PTF number" to "APAR Number or abstract" and enter in the string "C runtime". In the result window search for "VISUALAGE C++ V6 RUNTIME LIBRARIES". Highlight the entry and select **Add to list**. Follow the messages in the upcoming procedure.

The recommended URL is also important to check for new AIX 5L V5.1 updates.

4

Starting the migration

This chapter describes the environment used to perform and test the migration process using a straightforward method provided by Network Installation Management (NIM). Depending on the complexity and the size of the environment, different migration paths and plans are useful and important.

For the most common migrations in a current customer environment, the information in this chapter can be used as a basis to start on.

4.1 Hardware layout

To cover the most common installed hardware configurations used in several customer environments, the layout shown in Figure 4-1 was chosen to perform the migration tasks.

The final hardware in customer implementation will vary, and if there is no additional, exotic, or non-IBM hardware implemented, the migration steps will run without any problems. Keep in mind that it is not possible to document all customer migrations such as those using OEM hardware components for networking, or individual OEM devices such as tapes.
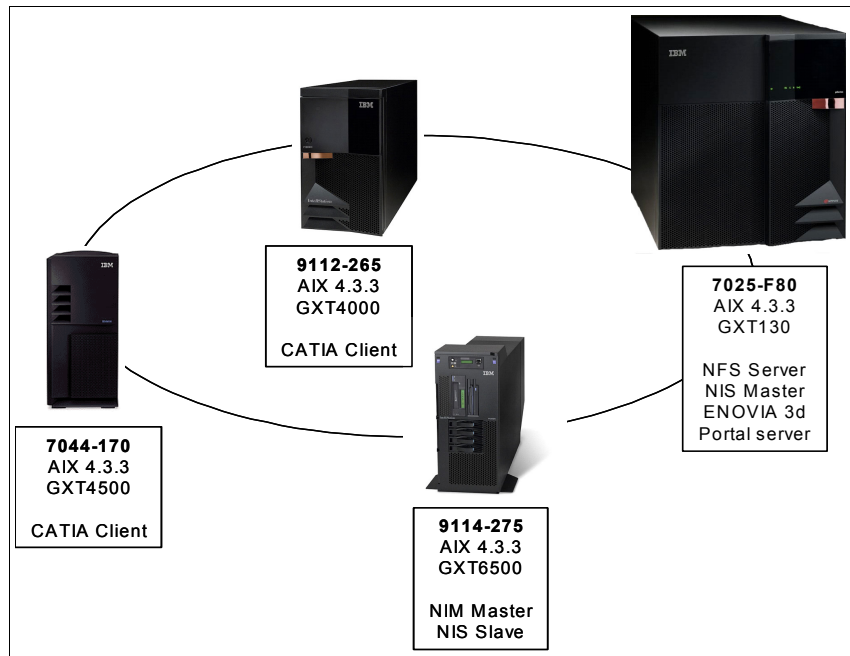
Figure 4-1   Migration hardware used

During our migration testing we used the following software products installed on the CATIA clients and the F80 Server:

► AIX Version 4.3.3 with Maintenance Level 10

► CATIA Version 4.2.4 Refresh 2

► CATIA Version 5 Release 12

► EDNOVIA 3D Portal Server Verion 5 Release 12

We have migrated the AIZ operating system level to AIX 5L Version 5.1 with Maintenance Level 5. Both CATIA versions and the EDNOVIA 3D Portal Server products ran well after the migration.

4.2 Migration using NIM

We selected NIM for the test migration. With NIM we could do the migration in a singe step without changing AIX base operating CDs, the AIX bonus pack CD, AIX expansion pack CDs, AIX documentation CDs, compiler CDs, and maintenance level CDs. In other words, a lot of time sitting in front of the servers was saved by this remote process, and we feel it will be saved for you as well.

As the NIM master in a NIM environment has to be at the highest available AIX level, we set up the NIM master at AIX 5L Version 5.2 with maintenance level 02. If your NIM master is based on AIX Version 4.3.3, we recommend that you migrate the NIM master first to AIX 5L Version 5.1 or 5.2 before starting to migrate the clients. For more information on how to set up the NIM master refer to the *AIX 5L Version 5.1 Network Installation Management Guide* located on the AIX Documentation CD; *NIM: From A to Z in AIX 4.3*, SG24-5524; or *AIX Version 4.3 to 5L Migration Guide*, SG24-6924, which is also valid for AIX 5L.

There is nothing special to consider for the NIM master when you start a migration installation on your clients.

For our migration we created the necessary AIX 5L Version 5.1 lpp_source and SPOT resources by installing the content of all AIX 5.1 CDs into one lpp_source NIM resource and used this lpp_source as the base installation device. Figure 4-2 shows the Web-based System Manager launch panel for the test system NIM operation.
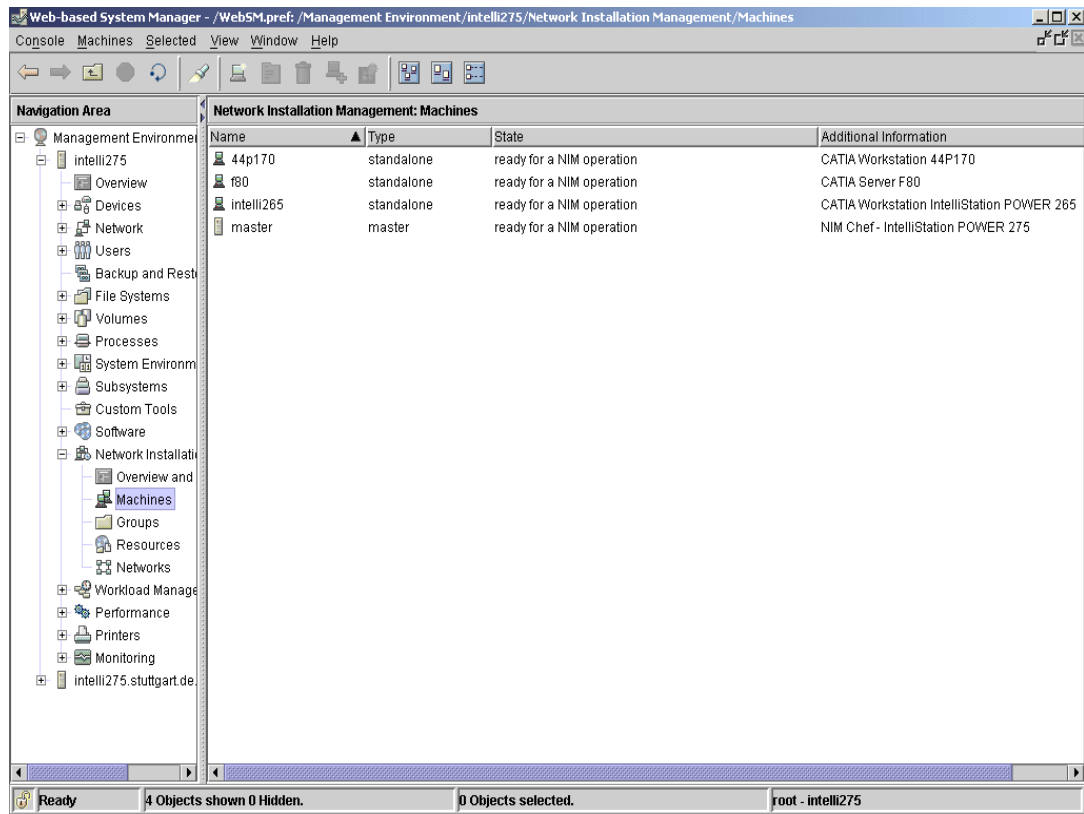
Figure 4-2   WebSM NIM launch panel

Beginning with AIX 5l Version 5.1, software license agreements are shipped and displayed electronically, saving paper and allowing for electronic software distribution in the future. If you start a migration over NIM, you have to check the "Accept new licence agreements" box, as shown in Figure 4-3.
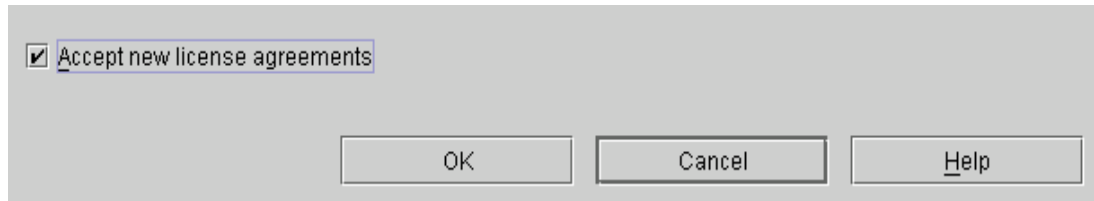
Figure 4-3   Accept new license agreement checkmark

The entire migration process is left out of this document. We assume that you have the appropriated skills to run a migration installation. If not, we recommend that you read the documentation previously cited.

Starting the migration over is not a very complex process. You have to choose the **rte - Install from installation images** panel and select the appropriate lpp_source and SPOT for AIX 5L Version 5.1. After the client was rebooted the installation main menu appears (if you have not decided to use a bosinst.data resource for an unattended installation). You can go through that menu and then the migration confirmation menu appears. Press Enter to continue and you can leave the migration alone.

The duration of the migration process depends on the software installed on the system and the hardware type. For example, a migration on a POWER3 hardware is faster than on a PowerPC 604.

Migration experiences

In this chapter we provide the information received during the migration process executed on the CATIA clients and the NFS and NIS server.

Though not all individual AIX configurations are covered, most of the installation is similar to a customer environment.

The overall outcome of the migration process is very good. In most of our tested cases, the migration worked without incident. Only a few things occurred that required manual intervention from a system administrator.

CATIA and ENOVIA performed as designed after the migration without changing anything within these software products. Therefore, we recommend that you migrate directly to the AIX 5L Version 5.1 5100-05 maintenance package, as we discovered no software failure that caused CATIA and ENOVIA to abend.

5.1 Post-migration tasks

After the migration, you will need to perform several tasks. The list of tasks required depends on your actual environment. During the migration process, installation messages of the `installp` command are shown on the display console. The `installp` output goes to the file devinst.log, which is located in the /var/adm/ras directory. This file contains information on the software installed during the migration. We recommend that you view this logfile to see if all required software has been installed.

The BosMenus.log file located in the /var/adm/ras directory contains the migration menus and selections you have made during the migration. You can view and edit this file.

During the preparation phase, you should have compiled a list of tests and procedures that will need to be carried out to confirm the success of the migration and additional software. If at any stage during post-migration testing you discover a problem, you should be prepared to restore your system to its original condition, thereby allowing work to continue while you investigate, fix, or circumvent the issue. The point at which you must begin to restore the system depends upon the amount of time you have left before work must begin and the length of time it will take to restore the system. This point should have been determined while planning the migration and should be prominent on your migration schedules. As mentioned previously, before restoring the system to its original configuration, you may want to run the `snap` command and also take a full backup of the system. This will allow you to return to your existing state, when a solution to the problem has been found, without having to run through a full migration again.

A few post-installation tasks are listed in the checklists in Table B-1 on page 44 and Table B-2 on page 45.

During our migration testing there was nothing needed to be done for CATIA and ENOVIA to operate. It continued to be run as it did on AIX Version 4.3.3 prior to the migration.

5.2 Migration experiences for AIX

The following sections provide information about our experiences with AIX made during the migration.

5.2.1 Umlaute on a German language keyboard

After the migration from AIX 4.3.3 to AIX 5L Version 5.1 the German umlaute did not work correctly. This is not a problem of the migration only. It also occurs if AIX 5L Version 5.1 is installed with the new and complete overwrite installation method. This problem might also occur with other languages.

To fix this problem, you need to install the X11.loc.de_DE fileset. You can either do it manually or provide a shell script executed by NIM after the migration process is finished. Example 5-1 provides an example of the shell script we used during the migration:

Example 5-1   Example shell script

```
#!/bin/ksh
#
# This shellscript is executed after a NIM migration installation
# and installs the german locales for AIX 5.1 in order to support
# the German umlaute in a X11 environment.
#
```

```
# (c) IBM Deutschland GmbH, Gregor Linzmeier and Volker Haug
#
######################################################################

mount intelli275:/stuff /mnt
if [ $? != 0 ]
  then
   echo "Error mounting NFS filesystem from the NIM server"
   echo "Error mounting NFS filesystem from the NIM server" >> /tmp/install_de_locale.error
  else
   echo "Mounting of NFS filesystem from NIM server was ok"
   echo "Mounting of NFS filesystem from NIM server was ok" >> /tmp/install_de_locale.ok
fi

/usr/lib/instl/sm_inst installp_cmd -a -l -d '/mnt' -f 'X11.loc.de_DE  \
ALL  @@I:X11.loc.de_DE _all_filesets' '-c' '-N' '-g' '-X'

if [ $? != 0 ]
  then
   echo "Installation of X11.loc.de_DE failed"
   echo "Installation of X11.loc.de_DE failed" >> /tmp/install_de_locale.error
  else
   echo "Installation of X11.loc.de_DE was successful"
   echo "Installation of X11.loc.de_DE was successful" >> /tmp/install_de_locale.ok
   unmount /mnt
fi
```

5.2.2 Activating spaceball or spacemouse

After the migration was finished a spaceball or spacemouse attached to the system was not
working properly. We used the following command to activate the device:

/usr/lpp/X11/bin/sbinstall -a 1 -l '<number_of_tty>'

5.2.3 Netscape cannot be launched

In particular cases the Netscape browser cannot be launched after the migration, and a
message similar to the following is received:

```
exec(): 0509-036 Cannot load program /usr/netscape/communicator/us/netscape_aix4 because of
the following errors:
0509-130 Symbol resolution failed for /usr/lib/libi18n.a (shr.o) because:
0509-136 Symbol __xwctomb (number 14) is not exported from dependent module
/usr/netscape/communicator/lib510/libc_r.a
```

Netscape uses a different directory to load the libc.a library. You will need to do the following
to make Netscape work:

1. **cd usr/netscape/communicator/lib510**

2. **mv libc.a libc.a.old**

3. **cp /usr/lib/libc.a .**

After these commands are run, Netscape will work properly.

5.2.4 Documentation cannot be launched

We had the AIX 4.3.3 documentation installed on our server. To migrate the documentation,
we added the AIX 5L Version 5.1 documentation filesets into the lpp_source located on our

NIM server. During the migration the previous 4.3.3 documentation filesets are replaced by the ones for AIX 5L Version 5.1.

But it might occur that you cannot start the documentation search engine or the documentation itself. To recover from that you need to remove the bos.html.* and bos.man.en_US.cmds filesets and reinstall them.

5.2.5 AIX CDE login hang

If your $HOME directory is located at the server and is NFS mounted using the AIX automounter daemons, you may receive a hang after login to CDE. You need to install IY45769, IY43548, and IY43971 to recover from that hang. At the time of writing, these PTFs are not included in the AIX 5100-05 maintenance package.

5.3 Migration experiences for CATIA and ENOVIA

After the migration to AIX 5L Version 5.1 maintenance level 04 you might receive no pointer markers within CATIA. This is fixed by AIX APAR IY45738, which is part of the AIX 5100-05 maintenance package.

<div style="text-align: right;">**A**</div>
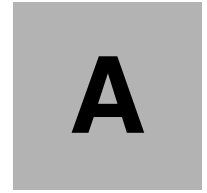
Fileset and bundle information

In this appendix we provide detailed information for system administrators to compare the listings of the fileset information used in the migration process. Additionally, a new developed AIX 5L Version 5.1 bundle file is included to ease the installation process for an initial installation method.

AIX Version 4.3.3 ML10 filesets

Example A-1 shows the actual installed filesets for an AIX client running AIX Version 4.3.3. We used an IBM RS/6000 44P-170 as the AIX client.

Example: A-1   lslpp -L from AIX Version 4.3.3

```
Fileset                    Level   State  Description
----------------------------------------------------------------------------
 IMNSearch.bld.DBCS         1.2.3.0    C    NetQuestion DBCS Buildtime Modules
 IMNSearch.bld.SBCS         1.2.3.0    C    NetQuestion SBCS Buildtime Modules
 IMNSearch.rte.DBCS         1.2.3.1    C    NetQuestion DBCS Search Engine
 IMNSearch.rte.SBCS         1.2.3.1    C    NetQuestion SBCS Search Engine
 IMNSearch.rte.httpdlite    2.0.0.1    C    NetQuestion Web Server
 Java.rte.bin               1.1.8.0    C    Java Runtime Environment Executables
 Java.rte.classes           1.1.8.0    C    Java Runtime Environment Classes
 Java.rte.lib               1.1.8.0    C    Java Runtime Environment Libraries
 Netscape.communicator.com  4.7.9.0    C    Netscape Communicator Common Files
 Netscape.communicator.plugins
                            4.7.9.0    C    Netscape Communicator Plugins
 Netscape.communicator.us   4.7.9.0    C    Netscape Communicator U.S. Version
 Netscape.help.en_US.communicator.rte
                            4.7.9.0    C    Netscape Communicator Help - U.S. English
 Netscape.msg.en_US.communicator.rte
                            4.7.9.0    C    Netscape Communicator Messages - U.S. English
 OpenGL.OpenGL_X.dev.pci.14101b02.PPC
                            4.3.3.0    C    OpenGL GXT6500P Device Dependent Software - PowerPC
 OpenGL.OpenGL_X.dev.pci.14101c02.PPC
                            4.3.3.0    C    OpenGL GXT4500P Device Dependent Software - PowerPC
 OpenGL.OpenGL_X.dev.pci.14106e01.PPC
                            4.3.3.75   C    OpenGL GXT4000P Device Dependent Software - PowerPC
 OpenGL.OpenGL_X.dev.pci.14107001.PPC
                            4.3.3.75   C    OpenGL GXT6000P Device Dependent Software - PowerPC
 OpenGL.OpenGL_X.dev.pci.14108e00.PPC
                            4.3.3.75   C    OpenGL GXT3000P Device Dependent Software - PowerPC
 OpenGL.OpenGL_X.dev.pci.1410b800.PPC
                            4.3.3.75   C    OpenGL GXT2000P Device Dependent Software - PowerPC
 OpenGL.OpenGL_X.dev.vfb    4.3.3.75   C    OpenGL Virtual Frame Buffer Support
 OpenGL.OpenGL_X.rte.base   4.3.3.75   C    OpenGL Base Runtime Environment
 OpenGL.OpenGL_X.rte.base+
                            4.3.3.75   C    OpenGL Enhanced Geometry Pipeline
 OpenGL.OpenGL_X.rte.base_mp
                            4.3.3.75   C    OpenGL MP Base Runtime Environment
 OpenGL.OpenGL_X.rte.pipe++
                            4.3.3.75   C    Enhanced OpenGL Graphics Pipeline
 OpenGL.OpenGL_X.rte.soft   4.3.3.75   C    OpenGL Soft Runtime Environment
 PEX_PHIGS.dev.pci.14101b02
                            4.3.3.0    C    PEX/graPHIGS GXT6500P Device Dependent Software
 PEX_PHIGS.dev.pci.14101c02
                            4.3.3.0    C    PEX/graPHIGS GXT4500P Device Dependent Software
 PEX_PHIGS.dev.pci.14106e01
                            4.3.3.75   C    PEX/graPHIGS GXT4000P Device Dependent Software
 PEX_PHIGS.dev.pci.14107001
                            4.3.3.75   C    PEX/graPHIGS GXT6000P Device Dependent Software
 PEX_PHIGS.dev.pci.14108e00
                            4.3.3.50   C    PEX/graPHIGS GXT3000P Device Dependent Software
 PEX_PHIGS.dev.pci.1410b800
                            4.3.3.50   C    PEX/graPHIGS GXT2000P Device Dependent Software
 PEX_PHIGS.graPHIGS.rte.6098
                            4.3.3.0    C    graPHIGS 6098 Support
 PEX_PHIGS.graPHIGS.rte.base
                            4.3.3.75   C    graPHIGS Base Runtime Environment
 PEX_PHIGS.graPHIGS.rte.pipe
                            4.3.3.75   C    graPHIGS Pipeline Runtime Environment
 PEX_PHIGS.graPHIGS.rte.plot
                            4.3.3.25   C    graPHIGS IBM/CALCOMP/VERSATEC Plotter Support
 PEX_PHIGS.graPHIGS.rte.rnuc
                            4.3.3.0    C    graPHIGS Remote Nucleus Support
 PEX_PHIGS.graPHIGS.rte.soft
                            4.3.3.25   C    graPHIGS Soft Runtime Environment
 PEX_PHIGS.msg.en_US.graPHIGS.rte.6098
                            4.3.0.0    C    graPHIGS 6098 Support Messages - U.S. English
 UMS.H_32x                  2.3.0.0    C    Ultimedia Services H.32x Collaboration Support
 UMS.loc.en_US.objects      2.3.0.0    C    Ultimedia Services Locales - U.S. English
 UMS.msg.en_US.objects      2.3.0.0    C    Ultimedia Services Messages - U.S. English
 UMS.objects                2.3.0.1    C    Ultimedia Services
 UMS.samples                2.3.0.0    C    Ultimedia Services Samples
 UMS.video_ext              2.3.0.0    C    AIX Ultimedia Services Video Extensions
 X11.Dt.ToolTalk            4.3.3.50   C    AIX CDE ToolTalk Support
 X11.Dt.adt                 4.3.3.10   C    AIX CDE Application Developers' Toolkit
```

```
X11.Dt.bitmaps            4.3.3.0    C    AIX CDE Bitmaps
X11.Dt.compat             4.3.3.0    C    AIX CDE Compatibility
X11.Dt.helpinfo           4.3.3.10   C    AIX CDE Help Files and Volumes
X11.Dt.helpmin            4.3.3.0    C    AIX CDE Minimum Help Files
X11.Dt.helprun            4.3.3.0    C    AIX CDE Runtime Help
X11.Dt.lib                4.3.3.75   C    AIX CDE Runtime Libraries
X11.Dt.rte                4.3.3.75   C    AIX Common Desktop Environment (CDE) 1.0
X11.Dt.xdt2cde            4.3.3.0    C    AIX CDE Migration Tool
X11.adt.bitmaps           4.3.3.0    C    AIXwindows Application Development Toolkit Bitmap Files
X11.adt.ext               4.3.3.75   C    AIXwindows Application Development Toolkit for X Extensions
X11.adt.imake             4.3.3.25   C    AIXwindows Application Development Toolkit imake
X11.adt.include           4.3.3.75   C    AIXwindows Application Development Toolkit Include Files
X11.adt.lib               4.3.3.10   C    AIXwindows Application Development Toolkit Libraries
X11.adt.motif             4.3.3.50   C    AIXwindows Application Development Toolkit Motif
X11.apps.aixterm          4.3.3.75   C    AIXwindows aixterm Application
X11.apps.clients          4.3.3.25   C    AIXwindows Client Applications
X11.apps.config           4.3.3.50   C    AIXwindows Configuration Applications
X11.apps.custom           4.3.3.0    C    AIXwindows Customizing Tool
X11.apps.msmit            4.3.3.50   C    AIXwindows msmit Application
X11.apps.pm               4.3.3.0    C    AIXwindows Power Management GUI Utility
X11.apps.rte              4.3.3.75   C    AIXwindows Runtime Configuration Applications
X11.apps.util             4.3.3.0    C    AIXwindows Utility Applications
X11.apps.xterm            4.3.3.75   C    AIXwindows xterm Application
X11.base.common           4.3.3.0    C    AIXwindows Runtime Common Directories
X11.base.lib              4.3.3.75   C    AIXwindows Runtime Libraries
X11.base.rte              4.3.3.75   C    AIXwindows Runtime Environment
X11.base.smt              4.3.3.50   C    AIXwindows Runtime Shared Memory Transport
X11.compat.adt.Motif12    4.3.3.0    C    AIXwindows Motif 1.2 Compatibility Development Toolkit
X11.compat.fnt.pc         4.3.3.0    C    AIXwindows PC850 Fonts Compatibility
X11.compat.lib.Motif10    4.3.3.0    C    AIXwindows Motif 1.0 Libraries Compatibility
X11.compat.lib.Motif114   4.3.3.0    C    AIXwindows Motif 1.1.4 Libraries Compatibility
X11.compat.lib.X11R3      4.3.3.0    C    AIXwindows X11R3 Libraries Compatibility
X11.compat.lib.X11R4      4.3.3.0    C    AIXwindows X11R4 Libraries Compatibility
X11.compat.lib.X11R5      4.3.3.75   C    AIXwindows X11R5 Compatibility Libraries
X11.fnt.coreX             4.3.3.0    C    AIXwindows X Consortium Fonts
X11.fnt.defaultFonts      4.3.3.0    C    AIXwindows Default Fonts
X11.fnt.iso1              4.3.3.10   C    AIXwindows Latin 1 Fonts
X11.loc.en_US.Dt.rte      4.3.3.0    C    AIX CDE Locale Configuration - U.S. English
X11.loc.en_US.base.lib    4.3.0.0    C    AIXwindows Client Locale Config - U.S. English
X11.loc.en_US.base.rte    4.3.0.0    C    AIXwindows Locale Configuration - U.S. English
X11.motif.lib             4.3.3.75   C    AIXwindows Motif Libraries
X11.motif.mwm             4.3.3.75   C    AIXwindows Motif Window Manager
X11.msg.en_US.Dt.helpmin  4.3.0.0    C    AIX CDE Minimum Help Files - U.S. English
X11.msg.en_US.Dt.rte      4.3.0.0    C    AIX CDE Messages - U.S. English
X11.msg.en_US.adt.ext     4.3.0.0    C    AIXwindows X Extensions Messages - U.S. English
X11.msg.en_US.adt.imake   4.3.2.0    C    AIXwindows imake Messages - U.S. English
X11.msg.en_US.apps.aixterm
                          4.3.0.0    C    AIXwindows aixterm Messages - U.S. English
X11.msg.en_US.apps.clients
                          4.3.0.0    C    AIXwindows Client Application Msgs - U.S. English
X11.msg.en_US.apps.config 4.3.0.0    C    AIXwindows Config Application Msgs - U.S. English
X11.msg.en_US.apps.custom 4.3.0.0    C    AIXwindows Customizing Tool Msgs - U.S. English
X11.msg.en_US.apps.pm     4.3.0.0    C    AIXwindows Power Mgmt GUI Msgs - U.S. English
X11.msg.en_US.apps.rte    4.3.0.0    C    AIXwindows Runtime Config Messages - U.S. English
X11.msg.en_US.base.common 4.3.0.0    C    AIXwindows Common Messages - U.S. English
X11.msg.en_US.base.rte    4.3.1.0    C    AIXwindows Runtime Env. Messages - U.S. English
X11.msg.en_US.motif.lib   4.3.0.0    C    AIXwindows Motif Libraries Messages - U.S. English
X11.msg.en_US.motif.mwm   4.3.0.0    C    AIXwindows Motif Window Mgr Msgs - U.S. English
X11.msg.en_US.vsm.rte     4.3.3.0    C    Visual System Mgmt. Helps & Msgs - U.S. English
X11.vfb                   4.3.3.50   C    Virtual Frame Buffer Software for AIXwindows
X11.vsm.helps             4.3.0.0    C    Visual System Management Default Helps
X11.vsm.icons             4.3.0.0    C    Visual System Management Icons
X11.vsm.lib               4.3.3.25   C    Visual System Managment Library
X11.vsm.rte               4.3.3.0    C    Visual System Management Runtime Environment
bos.64bit                 4.3.3.75   C    Base Operating System 64 bit Runtime
bos.acct                  4.3.3.75   C    Accounting Services
bos.adt.base              4.3.3.75   C    Base Application Development Toolkit
bos.adt.data              4.3.3.0    C    Base Application Development Toolkit Data
bos.adt.debug             4.3.3.75   C    Base Application Development Debuggers
bos.adt.graphics          4.3.3.75   C    Base Application Development Graphics Include Files
bos.adt.include           4.3.3.75   C    Base Application Development Include Files
bos.adt.lib               4.3.3.10   C    Base Application Development Libraries
bos.adt.libm              4.3.3.50   C    Base Application Development Math Library
bos.adt.prof              4.3.3.75   C    Base Profiling Support
bos.adt.prt_tools         4.3.3.0    C    Printer Support Development Toolkit
bos.adt.samples           4.3.3.75   C    Base Operating System Samples
bos.adt.sccs              4.3.3.0    C    SCCS Application Development Toolkit
bos.adt.syscalls          4.3.3.50   C    System Calls Application Development Toolkit
bos.adt.utils             4.3.3.50   C    Base Application Development Utilities - lex and yacc
bos.compat.NetInstl       4.3.3.0    C    AIX 3.2 Network Installation Tools
bos.compat.cmds           4.3.3.0    C    AIX 3.2 Compatibility Commands
bos.compat.imk            4.3.3.0    C    Base System Locale 3.1 Compatibility Links
bos.compat.lan            4.3.3.10   C    LAN COMIO Compatibility Software
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bos.compat.libs            4.3.3.0    C    AIX 3.2 Compatibility Libraries
bos.compat.links           4.3.3.0    C    AIX 3.2 to 4 Compatibility Links
bos.compat.net             4.3.3.0    C    AIX 3.2 TCP/IP Compatability Commands
bos.compat.termcap         4.3.3.0    C    AIX 3.2 Termcap Source and Library
bos.compat.termcap.data    4.3.0.0    C    AIX 3.2 Termcap Source Data
bos.content_list           4.3.3.50   C    AIX Release Content List
bos.data                   4.3.0.0    C    Base Operating System Data
bos.diag.com               4.3.3.75   C    Common Hardware Diagnostics
bos.diag.rte               4.3.3.75   C    Hardware Diagnostics
bos.diag.util              4.3.3.75   C    Hardware Diagnostics Utilities
bos.docregister.com        4.3.3.10   C    Docregister Common
bos.docsearch.client.Dt    4.3.3.0    C    DocSearch Client CDE Application Integration
bos.docsearch.client.com   4.3.3.0    C    DocSearch Client Common Files
bos.docsearch.rte          4.3.3.75   C    DocSearch Runtime
bos.dosutil                4.3.3.0    C    DOS Utilities
bos.help.msg.en_US.com     4.3.3.0    C    WebSM/SMIT Context Helps - U.S. English
bos.help.msg.en_US.smit    4.3.3.0    C    SMIT Context Helps - U.S. English
bos.html.en_US.topnav.navigate
                           4.3.3.0    C    Top Level Navigation - U. S. English
bos.iconv.com              4.3.3.75   C    Common Language to Language Converters
bos.iconv.de_DE            4.3.3.0    C    EBCDIC & ASCII Language Converters - German
bos.iconv.ucs.com          4.3.3.25   C    Unicode Base Converters for AIX Code Sets/Fonts
bos.loc.iso.de_DE          4.3.3.25   C    Base System Locale ISO Code Set - German
bos.loc.iso.en_US          4.3.3.25   C    Base System Locale ISO Code Set - U.S. English
bos.mp                     4.3.3.78   C    Base Operating System Multiprocessor Runtime
bos.msg.en_US.diag.rte     4.3.3.0    C    Hardware Diagnostics Messages - U.S. English
bos.msg.en_US.docregister.com
                           4.3.1.0    C    Docregister Common Messages - U.S. English
bos.msg.en_US.docsearch.client.Dt
                           4.3.2.0    C    DocSearch CDE Action - U.S. English
bos.msg.en_US.docsearch.client.com
                           4.3.3.0    C    DocSearch Common Messages - U.S. English
bos.msg.en_US.net.tcp.client
                           4.3.3.0    C    TCP/IP Messages - U.S. English
bos.msg.en_US.rte          4.3.3.0    C    Base Operating System Runtime
                                           Msgs - U.S. English
bos.msg.en_US.txt.tfs      4.3.1.0    C    Text Formatting Services
                                           Messages - U.S. English
bos.net.ncs                4.3.3.25   C    Network Computing System 1.5.1
bos.net.nfs.client         4.3.3.75   C    Network File System Client
bos.net.nfs.server         4.3.3.10   C    Network File System Server
bos.net.nis.client         4.3.3.75   C    Network Information Service Client
bos.net.snapp              4.3.3.76   C    System Networking Analysis and Performance Pilot
bos.net.tcp.client         4.3.3.75   C    TCP/IP Client Support
bos.net.tcp.server         4.3.3.75   C    TCP/IP Server
bos.net.tcp.smit           4.3.3.75   C    TCP/IP SMIT Support
bos.perf.diag_tool         4.3.3.75   C    Performance Diagnostic Tool
bos.perf.perfstat          4.3.3.0    C    Performance Statistics Interface
bos.powermgt.rte           4.3.3.0    C    Power Management Runtime Software
bos.rte                    4.3.3.75   C    Base Operating System Runtime
bos.rte.Dt                 4.3.0.0    C    Desktop Integrator
bos.rte.ILS                4.3.3.75   C    International Language Support
bos.rte.SRC                4.3.3.75   C    System Resource Controller
bos.rte.X11                4.3.0.0    C    AIXwindows Device Support
bos.rte.aio                4.3.3.75   C    Asynchronous I/O Extension
bos.rte.archive            4.3.3.75   C    Archive Commands
bos.rte.bind_cmds          4.3.3.75   C    Binder and Loader Commands
bos.rte.boot               4.3.3.75   C    Boot Commands
bos.rte.bosinst            4.3.3.75   C    Base OS Install Commands
bos.rte.commands           4.3.3.75   C    Commands
bos.rte.compare            4.3.3.75   C    File Compare Commands
bos.rte.console            4.3.3.75   C    Console
bos.rte.control            4.3.3.75   C    System Control Commands
bos.rte.cron               4.3.3.75   C    Batch Operations
bos.rte.date               4.3.3.75   C    Date Control Commands
bos.rte.devices            4.3.3.0    C    Base Device Drivers
bos.rte.devices_msg        4.3.3.75   C    Device Driver Messages
bos.rte.diag               4.3.3.75   C    Diagnostics
bos.rte.edit               4.3.3.75   C    Editors
bos.rte.filesystem         4.3.3.75   C    Filesystem Administration
bos.rte.iconv              4.3.3.0    C    Language Converters
bos.rte.ifor_ls            4.3.3.75   C    iFOR/LS Libraries
bos.rte.im                 4.3.3.75   C    Input Methods
bos.rte.install            4.3.3.78   C    LPP Install Commands
bos.rte.jfscomp            4.3.1.0    C    JFS Compression
bos.rte.libc               4.3.3.75   C    libc Library
bos.rte.libcfg             4.3.3.75   C    libcfg Library
bos.rte.libcur             4.3.3.75   C    libcurses Library
bos.rte.libdbm             4.3.3.0    C    libdbm Library
bos.rte.libnetsvc          4.3.0.0    C    Network Services Libraries
bos.rte.libpthreads        4.3.3.75   C    pthreads Library
bos.rte.libqb              4.3.3.75   C    libqb Library
bos.rte.libs               4.3.3.0    C    libs Library
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bos.rte.loc               4.3.3.75    C    Base Locale Support
bos.rte.lvm               4.3.3.75    C    Logical Volume Manager
bos.rte.man               4.3.3.75    C    Man Commands
bos.rte.methods           4.3.3.75    C    Device Config Methods
bos.rte.misc_cmds         4.3.3.75    C    Miscellaneous Commands
bos.rte.net               4.3.3.75    C    Network
bos.rte.odm               4.3.3.75    C    Object Data Manager
bos.rte.printers          4.3.3.75    C    Front End Printer Support
bos.rte.security          4.3.3.75    C    Base Security Function
bos.rte.serv_aid          4.3.3.75    C    Error Log Service Aids
bos.rte.shell             4.3.3.75    C    Shells (bsh, ksh, csh)
bos.rte.streams           4.3.3.75    C    Streams Libraries
bos.rte.tty               4.3.3.75    C    Base TTY Support and Commands
bos.som.comp              4.1.3.0     C    SOM Compiler
bos.som.rte               4.1.3.0     C    SOM Run-time Kernel and Interface Repository Framework
bos.som.util              4.1.3.0     C    SOMobjects Utility Classes
bos.sysmgt.loginlic       4.3.3.0     C    License Management
bos.sysmgt.nim.client     4.3.3.75    C    Network Install Manager - Client Tools
bos.sysmgt.serv_aid       4.3.3.75    C    Software Error Logging and Dump Service Aids
bos.sysmgt.smit           4.3.3.75    C    System Management Interface Tool (SMIT)
bos.sysmgt.sysbr          4.3.3.75    C    System Backup and BOS Install Utilities
bos.sysmgt.trace          4.3.3.75    C    Software Trace Service Aids
bos.terminfo.com.data     4.3.3.0     C    Common Terminal Definitions
bos.terminfo.dec.data     4.3.3.0     C    Digital Equipment Corp. Terminal Definitions
bos.terminfo.ibm.data     4.3.3.0     C    IBM Terminal Definitions
bos.terminfo.pc.data      4.3.2.50    C    Personal Computer Terminal Definitions
bos.terminfo.rte          4.3.3.0     C    Run-time Environment for AIX Terminals
bos.txt.spell             4.3.3.0     C    Writer's Tools Commands
bos.txt.spell.data        4.3.0.0     C    Writer's Tools Data
bos.txt.tfs               4.3.3.0     C    Text Formatting Services Commands
bos.txt.tfs.data          4.3.2.0     C    Text Formatting Services Data
bos.up                    4.3.3.78    C    Base Operating System Uniprocessor Runtime
devices.chrp.base.diag    4.3.3.75    C    RISC CHRP Base System Device Diagnostics
devices.chrp.base.rte     4.3.3.75    C    RISC PC Base System Device Software (CHRP)
devices.chrp.pci.rte      4.3.3.75    C    PCI Bus Software (CHRP)
devices.common.IBM.async.diag
                          4.3.3.25    C    Common Serial Adapter Diagnostics
devices.common.IBM.disk.rte
                          4.3.3.0     C    Common IBM Disk Software
devices.common.IBM.ethernet.rte
                          4.3.3.75    C    Common Ethernet Software
devices.common.IBM.fda.diag
                          4.3.3.50    C    Common Diskette Adapter and Device Diagnostics
devices.common.IBM.fda.rte
                          4.3.3.0     C    Common Diskette Device Software
devices.common.IBM.ktm_std.diag
                          4.3.0.0     C    Common Keyboard, Mouse, and Tablet Device Diagnostics
devices.common.IBM.ktm_std.rte
                          4.3.3.0     C    Common Keyboard, Tablet, and Mouse Software
devices.common.IBM.modemcfg.data
                          4.3.1.0     C    Sample Service Processor Modem Configuration Files
devices.common.IBM.pmmd_chrp.rte
                          4.3.3.0     C    CHRP Power Management Software
devices.common.IBM.ppa.diag
                          4.3.3.25    C    Common Parallel Printer Adapter Diagnostics
devices.common.IBM.ppa.rte
                          4.3.3.0     C    Common Parallel Printer Adapter Software
devices.common.IBM.scsi.rte
                          4.3.3.75    C    Common SCSI I/O Controller Software
devices.common.IBM.son.diag
                          4.3.3.75    C    GXT Common Graphics Adapter Diagnostics I
devices.common.IBM.ssa.diag
                          4.3.3.75    C    SSA Common Adapter Diagnostics
devices.common.IBM.ssa.rte
                          4.3.3.75    C    Common SSA Adapter Software
devices.common.IBM.tokenring.rte
                          4.3.3.50    C    Common Token Ring Software
devices.common.base.diag  4.3.3.75    C    Common Base System Diagnostics
devices.common.rspcbase.rte
                          4.3.3.0     C    RISC PC Common Base System Device Software
devices.graphics.com      4.3.3.75    C    Graphics Adapter Common Software
devices.isa_sio.IBM0017.diag
                          4.3.3.75    C    Ultimedia Integrated Audio Diagnostics
devices.isa_sio.IBM0017.rte
                          4.3.2.0     C    AIX Ultimedia Services RISC PC Audio Device (CS4232)
devices.isa_sio.IBM0019.diag
                          4.3.3.0     C    ISA Tablet Software (IBM0019) Diagnostics
devices.isa_sio.IBM0019.rte
                          4.3.3.25    C    ISA Tablet Software (IBM0019)
devices.isa_sio.PNP0303.diag
                          4.3.3.50    C    ISA Keyboard Diagnostics (PNP0303)
devices.isa_sio.PNP0400.rte
                          4.3.3.75    C    RISC PC Standard Parallel Port Adapter Software (PNP0400)
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devices.isa_sio.PNP0501.rte
                      4.3.3.50    C    RISC PC Standard Serial Adapter Software (PNP0501)
devices.isa_sio.PNP0700.rte
                      4.3.3.25    C    RISC PC Diskette Adapter Software (PNP0700)
devices.isa_sio.PNP0F03.diag
                      4.3.3.25    C    ISA Mouse Diagnostics (PNP0F03)
devices.isa_sio.baud.rte   4.3.2.1    C    AIX Ultimedia Services New RISC PC Audio Device
devices.isa_sio.chrp.8042.diag
                      4.3.0.0     C    ISA Keyboard & Mouse Diagnostics (CHRP)
devices.isa_sio.chrp.8042.rte
                      4.3.3.50    C    ISA Keyboard & Mouse Software (CHRP)
devices.isa_sio.chrp.ecp.diag
                      4.3.1.25    C    CHRP IEEE 1284 Parallel Port Adapter Diagnostics
devices.isa_sio.chrp.ecp.rte
                      4.3.3.75    C    CHRP IEEE1284 Parallel Port Adapter Software
devices.isa_sio.km.diag   4.3.3.50    C    ISA Keyboard & Mouse Diagnostics
devices.isa_sio.km.rte    4.3.3.50    C    ISA Keyboard, Tablet, and Mouse Software
devices.isa_sio.pnpPNP.400.diag
                      4.3.1.0     C    Standard Parallel Adapter Diagnostic (pnpPNP,400) Software
devices.isa_sio.pnpPNP.400.rte
                      4.3.0.0     C    RISC PC Standard Parallel Port Adapter Software (pnpPNP,400)
devices.isa_sio.pnpPNP.501.diag
                      4.3.0.0     C    CHRP Serial Adapter Diagnostics (pnpPNP.501)
devices.isa_sio.pnpPNP.501.rte
                      4.3.3.0     C    CHRP Serial Adapter Software (pnpPNP.501)
devices.isa_sio.pnpPNP.700.diag
                      4.3.0.0     C    CHRP Diskette Adapter Diagnostic Software (pnpPNP.700)
devices.isa_sio.pnpPNP.700.rte
                      4.3.3.0     C    CHRP Diskette Adapter Software (pnpPNP.700)
devices.msg.en_US.base.com
                      4.3.3.0     C    Base System Device Software Msgs - U.S. English
devices.msg.en_US.diag.rte
                      4.3.3.0     C    Device Diagnostics Messages - U.S. English
devices.msg.en_US.rspc.base.com
                      4.3.2.2     C    RISC PC Software Messages - U.S.English
devices.msg.en_US.sys.mca.rte
                      4.3.3.0     C    Micro Channel Bus Software Messages - U.S. English
devices.pci.00100100.com  4.3.3.75    C    Common Symbios PCI SCSI I/O Controller Software
devices.pci.00100300.diag
                      4.3.3.75    C    PCI 16-bit SCSI I/O Controller Diagnostics
devices.pci.00100b00.diag
                      4.3.3.25    C    SYM53C896 Dual Channel PCI-2 Ultra2 SCSI Adapter Diagnostics
devices.pci.00100b00.rte  4.3.3.0     C    SYM53C896 Dual Channel PCI SCSI I/O Controller
devices.pci.00100f00.rte  4.3.3.75    C    SYM53C8xxA PCI SCSI I/O Controller Software
devices.pci.00102100.diag 4.3.3.0     C    SYM53C1010 Dual Channel PCI Ultra3 SCSI Adapter Diagnostics
devices.pci.00102100.rte  4.3.3.0     C    SYM53C1010 PCI Ultra-3 SCSI I/O Controller Software
devices.pci.14101b02.X11  4.3.3.0     C    AIXwindows GXT6500P Graphics Adapter Software
devices.pci.14101b02.diag 4.3.3.0     C    GXT6500P Graphics Adapter Diagnostics
devices.pci.14101b02.rte  4.3.3.0     C    GXT6500P Graphics Adapter Software
devices.pci.14101c02.X11  4.3.3.0     C    AIXwindows GXT4500P Graphics Adapter Software
devices.pci.14101c02.diag 4.3.3.0     C    GXT4500P Graphics Adapter Diagnostics
devices.pci.14101c02.rte  4.3.3.0     C    GXT4500P Graphics Adapter Software
devices.pci.14103e00.diag
                      4.3.3.75    C    IBM PCI Tokenring Adapter (14103e00) Diagnostics
devices.pci.14103e00.rte  4.3.3.75    C    IBM PCI Token-Ring Adapter Software
devices.pci.14106e01.X11  4.3.3.75    C    AIXwindows GXT4000P Graphics Adapter Software
devices.pci.14106e01.diag 4.3.3.0     C    GXT4000P Graphics Adapter Diagnostics
devices.pci.14106e01.rte  4.3.3.75    C    GXT4000P Graphics Adapter Software
devices.pci.14107001.X11  4.3.3.75    C    AIXwindows GXT6000P Graphics Adapter Software
devices.pci.14107001.diag 4.3.3.0     C    GXT6000P Graphics Adapter Diagnostics
devices.pci.14107001.rte  4.3.3.75    C    GXT6000P Graphics Adapter Software
devices.pci.14108e00.X11  4.3.3.75    C    AIXwindows GXT3000P Graphics Adapter Software
devices.pci.14108e00.diag
                      4.3.3.10    C    GXT3000P Graphics Adapter Diagnostics
devices.pci.14108e00.rte  4.3.3.75    C    GXT3000P Graphics Adapter Software
devices.pci.14109100.diag
                      4.3.3.50    C    SSA Adapter (14109100) Diagnostics
devices.pci.14109100.rte  4.3.3.26    C    SSA Adapter (14109100) Software
devices.pci.1410b800.X11  4.3.3.75    C    AIXwindows GXT2000P Graphics Adapter Software
devices.pci.1410b800.diag 4.3.3.0     C    GXT2000P Graphics Adapter Diagnostics
devices.pci.1410b800.rte  4.3.3.75    C    GXT2000P Graphics Adapter Software
devices.pci.1410ff01.diag 4.3.3.0     C    10/100Mbps Ethernet PCI Adapter II Diagnostics
devices.pci.1410ff01.rte  4.3.3.0     C    10/100 Mbps Ethernet PCI Adapter II Software
devices.pci.23100020.diag
                      4.3.3.50    C    IBM PCI 10/100 Mb Ethernet Adapter (23100020) Diagnostics
devices.pci.23100020.rte  4.3.3.75    C    IBM PCI 10/100 Ethernet Adapter Software
devices.pci.86808404.com  4.3.0.0     C    Common ISA Bus Software
devices.pci.86808404.rte  4.3.3.0     C    ISA Bus Software
devices.pci.PNP0A03.rte   4.3.0.0     C    PCI Bus Bridge Software
devices.pci.ad100501.com  4.3.3.0     C    IDE Adapter Driver for Winbond 553F Chip Common
devices.pci.ad100501.rte  4.3.3.0     C    IDE Adapter Driver for Winbond 553F Chip Software
devices.pci.isa.rte       4.3.3.0     C    ISA Bus Bridge Software (CHRP)
devices.pci.pci.rte       4.3.3.0     C    PCI Bus Bridge Software (CHRP)
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devices.scsi.disk.diag.com
                          4.3.3.75   C   Common Disk Diagnostic Service Aid
devices.scsi.disk.diag.rte
                          4.3.3.75   C   SCSI CD_ROM, Disk Device Diagnostics
devices.scsi.disk.rspc    4.3.3.25   C   RISC PC SCSI CD-ROM, Disk, Read/Write Optical Software
devices.scsi.disk.rte     4.3.3.75   C   SCSI CD-ROM, Disk, Read/Write Optical Device Software
devices.scsi.tape.diag    4.3.3.75   C   SCSI Tape Device Diagnostics
devices.scsi.tape.rspc    4.3.3.25   C   RISC PC SCSI Tape Device Software
devices.scsi.tape.rte     4.3.3.10   C   SCSI Tape Device Software
devices.serial.sb1.X11    4.3.1.0    C   AIXwindows 6094-030 Spaceball 3-D Input Device Software
devices.ssa.IBM_raid.rte  4.3.3.50   C   SSA Raid Manager Software
devices.ssa.disk.rte      4.3.3.75   C   SSA DASD Software
devices.sys.pci.rte       4.3.3.75   C   PCI Bus Software
devices.tty.rte           4.3.3.0    C   TTY Device Driver Support Software
ifor_ls.base.cli          4.3.3.25   C   License Use Management Runtime Code
ifor_ls.base.gui          4.3.3.25   C   License Use Management Runtime GUI
ifor_ls.client.base       4.3.3.0    C   License Use Management Client Runtime
ifor_ls.client.gui        4.3.3.0    C   License Use Management Client GUI
ifor_ls.msg.en_US.base.cli
                          4.3.3.0    C   LUM Runtime Code Messages - U.S. English
ifor_ls.msg.en_US.base.gui
                          4.3.3.0    C   LUM Runtime GUI Messages - U.S. English
invscout.ldb              1.3.0.0    C   Inventory Scout Logic Database
invscout.msg.en_US.rte    1.2.0.0    C   Inventory Scout Messages - U.S. English
invscout.rte              1.3.0.0    C   Inventory Scout Runtime
ipfx.adt                  2.2.0.0    C   IBM Information Presentation
                                         Facility Development Kit/6000
ipfx.msg.en_US.adt        2.2.0.0    C   English ISO8859-1 message and grammer files
ipfx.msg.en_US.rte        2.2.0.0    C   IPF Messages - U.S. English
ipfx.rte                  2.2.0.0    C   Information Presentation Facility Runtime
perfagent.tools           2.2.33.75  C   Local Performance Analysis & Control Commands
perl.rte                  5.5.3.75   C   Perl Version 5 Runtime Environment
printers.msg.en_US.rte    4.3.1.1    C   Printer Backend Messages - U.S. English
printers.rte              4.3.3.75   C   Printer Backend
sysmgt.help.msg.en_US.websm
                          4.3.3.0    C   WebSM Context Helps - U.S. English
sysmgt.msg.en_US.websm.apps
                          4.3.3.10   C   WebSM Client Apps. Messages - U.S. English
sysmgt.sguide.rte         4.3.3.10   C   TaskGuide Runtime Environment
sysmgt.websm.apps         4.3.3.75   C   Web-based System Manager Applications
sysmgt.websm.diag         4.3.3.10   C   Web-based System Manager
                                         Diagnostic Applications
sysmgt.websm.framework    4.3.3.10   C   Web-based System Manager Client/Server Support
sysmgt.websm.icons        4.3.3.0    C   Web-based System Manager Icons
sysmgt.websm.rte          4.3.3.75   C   Web-based System Manager Runtime Environment
sysmgt.websm.ucf          4.3.3.0    C   Web-based System Manager Container Framework
sysmgt.websm.widgets      4.3.3.75   C   Web-based System Manager Base Widgets
xlC.aix43.rte             5.0.2.0    C   C Set ++ Runtime for AIX 4.3
xlC.cpp                   4.3.0.1    C   C for AIX Preprocessor
xlC.msg.en_US.cpp         4.3.0.1    C   C for AIX Preprocessor Messages en_US
xlC.msg.en_US.rte         5.0.2.0    C   C Set ++ Runtime Messages--U.S. English
xlC.rte                   5.0.2.0    C   C Set ++ Runtime
xldb.msg.en_US            1.2.2.4    C   IBM XLDB Source Level Debugger Messages
xlfcmp                    5.1.1.0    C   XL Fortran Compiler
xlfcmp.msg.en_US          5.1.1.0    C   XL Fortran Compiler Messages - U.S. English
xlfrte                    5.1.1.0    C   XL Fortran Runtime Environment
xlfrte.msg.en_US          5.1.1.0    C   XL Fortran Runtime Messages - U.S. English
xlsmp.msg.en_US.rte       1.2.0.0    C   XL SMP Runtime Messages - U.S. English
xlsmp.rte                 1.2.0.0    C   SMP Runtime Library
```

AIX 5L Version 5.1 ML05 filesets

Example A-2 shows the actual installed filesets after the migration to AIX 5L Version 5.1 on the IBM RS/6000 44P-170.

Example: A-2   lslpp -L from AIX 5L Version 5.1

```
Fileset                    Level  State  Type  Description (Uninstaller)
  ----------------------------------------------------------------------
  IMNSearch.bld.DBCS         2.3.1.15   C    F    NetQuestion DBCS Buildtime Modules
  IMNSearch.bld.SBCS         2.3.1.15   C    F    NetQuestion SBCS Buildtime Modules
  IMNSearch.msg.en_US.rte.com
                             2.3.1.0    C    F    Text Search Messages - U.S. English
  IMNSearch.rte.DBCS         2.3.1.50   C    F    NetQuestion DBCS Search Engine
  IMNSearch.rte.SBCS         2.3.1.50   C    F    NetQuestion SBCS Search Engine
  IMNSearch.rte.client       2.3.1.0    C    F    Text Search Client
  IMNSearch.rte.com          2.3.1.15   C    F    Text Search Client/Server Shared Files
  IMNSearch.rte.httpdlite    2.0.0.15   C    F    Lite NetQuestion Local Web Server
  IMNSearch.rte.server       2.3.1.0    C    F    Text Search Server
  Java.rte.bin               1.1.8.0    C    F    Java Runtime Environment Executables
  Java.rte.classes           1.1.8.0    C    F    Java Runtime Environment Classes
  Java.rte.lib               1.1.8.0    C    F    Java Runtime Environment Libraries
  Java130.rte.bin            1.3.0.18   C    F    Java Runtime Environment Executables
  Java130.rte.lib            1.3.0.18   C    F    Java Runtime Environment Libraries
  Netscape.communicator.com  4.8.0.0    C    F    Netscape Communicator Common Files
  Netscape.communicator.us   4.8.0.0    C    F    Netscape Communicator U.S. Version
  Netscape.help.en_US.communicator.rte
                             4.7.9.0    C    F    Netscape Communicator Help - U.S. English
  Netscape.msg.en_US.communicator.rte
                             4.7.9.0    C    F    Netscape Communicator Messages - U.S. English
  OpenGL.OpenGL_X.dev.pci.14101b02.PPC
                             5.1.0.51   C    F    OpenGL GXT6500P Device Dependent Software - PowerPC
  OpenGL.OpenGL_X.dev.pci.14101c02.PPC
                             5.1.0.50   C    F    OpenGL GXT4500P Device Dependent Software - PowerPC
  OpenGL.OpenGL_X.dev.pci.14106e01.PPC
                             5.1.0.50   C    F    OpenGL GXT4000P Device Dependent Software - PowerPC
  OpenGL.OpenGL_X.dev.pci.14107001.PPC
                             5.1.0.51   C    F    OpenGL GXT6000P Device Dependent Software - PowerPC
  OpenGL.OpenGL_X.dev.pci.14108e00.PPC
                             5.1.0.50   C    F    OpenGL GXT3000P Device Dependent Software - PowerPC
  OpenGL.OpenGL_X.dev.pci.1410b800.PPC
                             5.1.0.50   C    F    OpenGL GXT2000P Device Dependent Software - PowerPC
  OpenGL.OpenGL_X.dev.vfb    5.1.0.50   C    F    OpenGL Virtual Frame Buffer Support
  OpenGL.OpenGL_X.rte.base   5.1.0.52   C    F    OpenGL Base Runtime Environment
  OpenGL.OpenGL_X.rte.base+
                             5.1.0.11   C    F    OpenGL Enhanced Geometry Pipeline
  OpenGL.OpenGL_X.rte.base_mp
                             5.1.0.10   C    F    OpenGL MP Base Runtime Environment
  OpenGL.OpenGL_X.rte.pipe++
                             5.1.0.35   C    F    Enhanced OpenGL Graphics Pipeline
  OpenGL.OpenGL_X.rte.soft   5.1.0.50   C    F    OpenGL Soft Runtime Environment
  PEX_PHIGS.dev.pci.14101b02
                             5.1.0.52   C    F    PEX/graPHIGS GXT6500P Device Dependent Software
  PEX_PHIGS.dev.pci.14101c02
                             5.1.0.52   C    F    PEX/graPHIGS GXT4500P Device Dependent Software
  PEX_PHIGS.dev.pci.14106e01
                             5.1.0.52   C    F    PEX/graPHIGS GXT4000P Device Dependent Software
  PEX_PHIGS.dev.pci.14107001
                             5.1.0.52   C    F    PEX/graPHIGS GXT6000P Device Dependent Software
  PEX_PHIGS.dev.pci.14108e00
                             5.1.0.50   C    F    PEX/graPHIGS GXT3000P Device Dependent Software
  PEX_PHIGS.dev.pci.1410b800
                             5.1.0.50   C    F    PEX/graPHIGS GXT2000P Device Dependent Software
  PEX_PHIGS.graPHIGS.rte.6098
                             5.1.0.0    C    F    graPHIGS 6098 Support
  PEX_PHIGS.graPHIGS.rte.base
                             5.1.0.52   C    F    graPHIGS Base Runtime Environment
  PEX_PHIGS.graPHIGS.rte.pipe
                             5.1.0.50   C    F    graPHIGS Pipeline Runtime Environment
  PEX_PHIGS.graPHIGS.rte.plot
                             5.1.0.0    C    F    graPHIGS IBM/CALCOMP/VERSATEC Plotter Support
  PEX_PHIGS.graPHIGS.rte.rnuc
                             5.1.0.0    C    F    graPHIGS Remote Nucleus Support
  PEX_PHIGS.graPHIGS.rte.soft
                             5.1.0.50   C    F    graPHIGS Soft Runtime Environment
  PEX_PHIGS.msg.en_US.graPHIGS.rte.6098
                             5.1.0.0    C    F    graPHIGS 6098 Support Messages - U.S. English
  Tivoli_Management_Agent.client.rte
                             3.7.1.0    C    F    Management Framework Endpoint Runtime"
  X11.Dt.ToolTalk            5.1.0.50   C    F    AIX CDE ToolTalk Support
```

```
X11.Dt.adt                 5.1.0.0    C    F    AIX CDE Application Developers' Toolkit
X11.Dt.bitmaps             5.1.0.0    C    F    AIX CDE Bitmaps
X11.Dt.compat              5.1.0.0    C    F    AIX CDE Compatibility
X11.Dt.helpinfo            5.1.0.0    C    F    AIX CDE Help Files and Volumes
X11.Dt.helpmin             5.1.0.0    C    F    AIX CDE Minimum Help Files
X11.Dt.helprun             5.1.0.0    C    F    AIX CDE Runtime Help
X11.Dt.lib                 5.1.0.50   C    F    AIX CDE Runtime Libraries
X11.Dt.rte                 5.1.0.52   C    F    AIX Common Desktop Environment (CDE) 1.0
X11.Dt.xdt2cde             5.1.0.0    C    F    AIX CDE Migration Tool
X11.adt.bitmaps            5.1.0.0    C    F    AIXwindows Application Development Toolkit Bitmap Files
X11.adt.ext                5.1.0.25   C    F    AIXwindows Application Development Toolkit for X Extensions
X11.adt.imake              5.1.0.15   C    F    AIXwindows Application Development Toolkit imake
X11.adt.include            5.1.0.0    C    F    AIXwindows Application Development Toolkit Include Files
X11.adt.lib                5.1.0.0    C    F    AIXwindows Application Development Toolkit Libraries
X11.adt.motif              5.1.0.0    C    F    AIXwindows Application Development Toolkit Motif
X11.apps.aixterm           5.1.0.36   C    F    AIXwindows aixterm Application
X11.apps.clients           5.1.0.0    C    F    AIXwindows Client Applications
X11.apps.config            5.1.0.0    C    F    AIXwindows Configuration Applications
X11.apps.custom            5.1.0.0    C    F    AIXwindows Customizing Tool
X11.apps.msmit             5.1.0.50   C    F    AIXwindows msmit Application
X11.apps.pm                5.1.0.0    C    F    AIXwindows Power Management GUI Utility
X11.apps.rte               5.1.0.0    C    F    AIXwindows Runtime Configuration Applications
X11.apps.util              5.1.0.0    C    F    AIXwindows Utility Applications
X11.apps.xdm               5.1.0.25   C    F    AIXwindows xdm Application
X11.apps.xterm             5.1.0.10   C    F    AIXwindows xterm Application
X11.base.common            5.1.0.0    C    F    AIXwindows Runtime Common Directories
X11.base.lib               5.1.0.50   C    F    AIXwindows Runtime Libraries
X11.base.rte               5.1.0.51   C    F    AIXwindows Runtime Environment
X11.base.smt               5.1.0.25   C    F    AIXwindows Runtime Shared Memory Transport
X11.compat.adt.Motif12     5.1.0.50   C    F    AIXwindows Motif 1.2Compatibility Development Toolkit
X11.compat.fnt.pc          5.1.0.0    C    F    AIXwindows PC850 Fonts Compatibility
X11.compat.lib.Motif10     5.1.0.0    C    F    AIXwindows Motif 1.0 Libraries Compatibility
X11.compat.lib.Motif114    5.1.0.0    C    F    AIXwindows Motif 1.1.4 Libraries Compatibility
X11.compat.lib.X11R3       5.1.0.0    C    F    AIXwindows X11R3 Libraries Compatibility
X11.compat.lib.X11R4       5.1.0.0    C    F    AIXwindows X11R4 Libraries Compatibility
X11.compat.lib.X11R5       5.1.0.50   C    F    AIXwindows X11R5 Compatibility Libraries
X11.fnt.coreX              5.1.0.0    C    F    AIXwindows X Consortium Fonts
X11.fnt.defaultFonts       5.1.0.0    C    F    AIXwindows Default Fonts
X11.fnt.iso1               5.1.0.25   C    F    AIXwindows Latin 1 Fonts
X11.loc.de_DE.Dt.rte       5.1.0.0    C    F    CDE Locale Configuration - German
X11.loc.de_DE.base.lib     5.1.0.0    C    F    AIXwindows Client Locale Config - German
X11.loc.de_DE.base.rte     5.1.0.0    C    F    AIXwindows Locale Configuration - German
X11.loc.en_US.Dt.rte       5.1.0.0    C    F    CDE Locale Configuration -U.S. English
X11.loc.en_US.base.lib     5.1.0.0    C    F    AIXwindows Client Locale Config - U.S. English
X11.loc.en_US.base.rte     5.1.0.15   C    F    AIXwindows Locale Configuration - U.S. English
X11.motif.lib              5.1.0.53   C    F    AIXwindows Motif Libraries
X11.motif.mwm              5.1.0.36   C    F    AIXwindows Motif Window Manager
X11.msg.en_US.Dt.helpmin   5.1.0.0    C    F    AIX CDE Minimum Help Files - U.S. English
X11.msg.en_US.Dt.rte       5.1.0.0    C    F    AIX CDE Messages - U.S. English
X11.msg.en_US.adt.ext      5.1.0.0    C    F    AIXwindows X Extensions
                                                Messages - U.S. English
X11.msg.en_US.adt.imake    5.1.0.0    C    F    AIXwindows imake Messages - U.S. English
X11.msg.en_US.apps.aixterm
                           5.1.0.0    C    F    AIXwindows aixterm Messages - U.S. English
X11.msg.en_US.apps.clients
                           5.1.0.0    C    F    AIXwindows Client Application Msgs - U.S. English
X11.msg.en_US.apps.config  5.1.0.0    C    F    AIXwindows Config Application Msgs - U.S. English
X11.msg.en_US.apps.custom  5.1.0.0    C    F    AIXwindows Customizing Tool Msgs - U.S. English
X11.msg.en_US.apps.pm      5.1.0.0    C    F    AIXwindows Power Mgmt GUI Msgs - U.S. English
X11.msg.en_US.apps.rte     5.1.0.0    C    F    AIXwindows Runtime Config Messages - U.S. English
X11.msg.en_US.apps.xdm     5.1.0.0    C    F    AIXwindows xdm Messages - U.S. English
X11.msg.en_US.base.common  5.1.0.0    C    F    AIXwindows Common Messages - U.S. English
X11.msg.en_US.base.rte     5.1.0.0    C    F    AIXwindows Runtime Env. Messages - U.S. English
X11.msg.en_US.motif.lib    5.1.0.0    C    F    AIXwindows Motif Libraries Messages - U.S. English
X11.msg.en_US.motif.mwm    5.1.0.0    C    F    AIXwindows Motif Window Mgr Msgs - U.S. English
X11.msg.en_US.vsm.rte      5.1.0.0    C    F    Visual System Mgmt. Helps & Msgs - U.S. English
X11.samples.apps.clients   5.1.0.0    C    F    AIXwindows Sample X Consortium Clients Binary/Source
X11.samples.common         5.1.0.0    C    F    AIXwindows Imakefile Structure for Samples
X11.samples.lib.Core       5.1.0.0    C    F    AIXwindows Sample X Consortium Core Libraries Binary/Source
X11.vfb                    5.1.0.16   C    F    Virtual Frame Buffer Software for AIXwindows
X11.vsm.lib                5.1.0.25   C    F    Visual System Managment Library
bos.64bit                  5.1.0.52   C    F    Base Operating System 64 bit Runtime
bos.acct                   5.1.0.52   C    F    Accounting Services
bos.adt.base               5.1.0.51   C    F    Base Application Development Toolkit
bos.adt.data               5.1.0.0    C    F    Base Application Development Toolkit Data
bos.adt.debug              5.1.0.50   C    F    Base Application Development Debuggers
bos.adt.graphics           5.1.0.25   C    F    Base Application Development Graphics Include Files
bos.adt.include            5.1.0.55   C    F    Base Application Development Include Files
bos.adt.lib                5.1.0.35   C    F    Base Application Development Libraries
bos.adt.libm               5.1.0.26   C    F    Base Application Development Math Library
bos.adt.prof               5.1.0.55   C    F    Base Profiling Support
bos.adt.prt_tools          5.1.0.0    C    F    Printer Support Development Toolkit
bos.adt.samples            5.1.0.52   C    F    Base Operating System Samples
```

```
bos.adt.sccs              5.1.0.25   C   F   SCCS Application Development Toolkit
bos.adt.syscalls          5.1.0.50   C   F   System Calls Application Development Toolkit
bos.adt.utils             5.1.0.0    C   F   Base Application Development Utilities - lex and yacc
bos.compat.NetInstl       4.3.3.0    C   F   AIX 3.2 Network Installation Tools
bos.compat.cmds           5.1.0.0    C   F   AIX 3.2 Compatibility Commands
bos.compat.imk            5.1.0.0    C   F   Base System Locale 3.1 Compatibility Links
bos.compat.lan            5.1.0.35   C   F   LAN COMIO Compatibility Software
bos.compat.libs           5.1.0.0    C   F   AIX 3.2 Compatibility Libraries
bos.compat.links          5.1.0.0    C   F   AIX 3.2 to 4 Compatibility Links
bos.compat.net            5.1.0.25   C   F   AIX 3.2 TCP/IP Compatability Commands
bos.compat.termcap        5.1.0.0    C   F   AIX 3.2 Termcap Source and Library
bos.compat.termcap.data   5.1.0.0    C   F   AIX 3.2 Termcap Source Data
bos.content_list          5.1.0.0    C   F   AIX Release Content List
bos.data                  5.1.0.0    C   F   Base Operating System Data
bos.diag.com              5.1.0.52   C   F   Common Hardware Diagnostics
bos.diag.rte              5.1.0.51   C   F   Hardware Diagnostics
bos.diag.util             5.1.0.51   C   F   Hardware Diagnostics Utilities
bos.docregister.com       5.1.0.35   C   F   Docregister Common
bos.docsearch.client.Dt   5.1.0.0    C   F   DocSearch Client CDE
                                             Application Integration
bos.docsearch.client.com  5.1.0.0    C   F   DocSearch Client Common Files
bos.docsearch.rte         5.1.0.25   C   F   DocSearch Runtime
bos.dosutil               5.1.0.25   C   F   DOS Utilities
bos.help.msg.en_US.com    5.1.0.0    C   F   WebSM/SMIT Context Helps - U.S. English
bos.help.msg.en_US.smit   5.1.0.0    C   F   SMIT Context Helps - U.S. English
bos.html.en_US.topnav.navigate
                          5.1.0.0    C   F   Top Level Navigation - U.S. English
bos.iconv.com             5.1.0.53   C   F   Common Language to Language Converters
bos.iconv.de_DE           5.1.0.0    C   F   EBCDIC & ASCII Language Converters - German
bos.iconv.ucs.com         5.1.0.52   C   F   Unicode Base Converters for AIX Code Sets/Fonts
bos.loc.iso.de_DE         5.1.0.0    C   F   Base System Locale ISO Code Set - German
bos.loc.iso.en_US         5.1.0.0    C   F   Base System Locale ISO Code Set - U.S. English
bos.man.en_US.cmds        5.1.0.0    C   F   AIX Man Commands - U.S. English
bos.mh                    5.1.0.35   C   F   Mail Handler
bos.mp                    5.1.0.55   C   F   Base Operating System Multiprocessor Runtime
bos.mp64                  5.1.0.56   C   F   Base Operating System 64-bit Multiprocessor Runtime
bos.msg.en_US.diag.rte    5.1.0.0    C   F   Hardware Diagnostics Messages - U.S. English
bos.msg.en_US.docregister.com
                          5.1.0.0    C   F   Docregister Common Messages - U.S. English
bos.msg.en_US.docsearch.client.Dt
                          5.1.0.0    C   F   DocSearch CDE Action - U.S. English
bos.msg.en_US.docsearch.client.com
                          5.1.0.0    C   F   DocSearch Common Messages - U.S. English
bos.msg.en_US.mp          5.1.0.0    C   F   Base Operating System MP Messages - U.S. English
bos.msg.en_US.net.ipsec   5.1.0.0    C   F   IP Security Messages - U.S. English
bos.msg.en_US.net.tcp.client
                          5.1.0.0    C   F   TCP/IP Messages - U.S. English
bos.msg.en_US.rte         5.1.0.0    C   F   Base Operating System Runtime Msgs - U.S. English
bos.msg.en_US.svprint     5.1.0.0    C   F   System V Print Subsystem Messages - U.S. English
bos.msg.en_US.txt.tfs     5.1.0.0    C   F   Text Formatting Services Messages - U.S. English
bos.net.ipsec.keymgt      5.1.0.51   C   F   IP Security Key Management
bos.net.ipsec.rte         5.1.0.51   C   F   IP Security
bos.net.ncs               5.1.0.25   C   F   Network Computing System 1.5.1
bos.net.nfs.adt           5.1.0.50   C   F   Network File System
                                             Development Toolkit
bos.net.nfs.cachefs       5.1.0.53   C   F   CacheFS File System
bos.net.nfs.client        5.1.0.55   C   F   Network File System Client
bos.net.nfs.server        5.1.0.50   C   F   Network File System Server
bos.net.nis.client        5.1.0.50   C   F   Network Information Service Client
bos.net.nis.server        5.1.0.51   C   F   Network Information Service Server
bos.net.snapp             5.1.0.0    C   F   System Networking Analysis and Performance Pilot
bos.net.tcp.adt           5.1.0.35   C   F   TCP/IP Application Toolkit
bos.net.tcp.client        5.1.0.56   C   F   TCP/IP Client Support
bos.net.tcp.server        5.1.0.53   C   F   TCP/IP Server
bos.net.tcp.smit          5.1.0.51   C   F   TCP/IP SMIT Support
bos.net.uucp              5.1.0.35   C   F   Unix to Unix Copy Program
bos.perf.diag_tool        5.1.0.25   C   F   Performance Diagnostic Tool
bos.perf.perfstat         5.1.0.51   C   F   Performance Statistics Interface
bos.perf.tools            5.1.0.54   C   F   Base Performance Tools
bos.powermgt.rte          5.1.0.10   C   F   Power Management Runtime Software
bos.rte                   5.1.0.51   C   F   Base Operating System Runtime
bos.rte.Dt                5.1.0.0    C   F   Desktop Integrator
bos.rte.ILS               5.1.0.50   C   F   International Language Support
bos.rte.SRC               5.1.0.50   C   F   System Resource Controller
bos.rte.X11               5.1.0.0    C   F   AIXwindows Device Support
bos.rte.aio               5.1.0.51   C   F   Asynchronous I/O Extension
bos.rte.archive           5.1.0.54   C   F   Archive Commands
bos.rte.bind_cmds         5.1.0.52   C   F   Binder and Loader Commands
bos.rte.boot              5.1.0.50   C   F   Boot Commands
bos.rte.bosinst           5.1.0.50   C   F   Base OS Install Commands
bos.rte.commands          5.1.0.52   C   F   Commands
bos.rte.compare           5.1.0.0    C   F   File Compare Commands
bos.rte.console           5.1.0.50   C   F   Console
```

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bos.rte.control            5.1.0.53   C   F   System Control Commands
bos.rte.cron               5.1.0.52   C   F   Batch Operations
bos.rte.date               5.1.0.50   C   F   Date Control Commands
bos.rte.devices            5.1.0.10   C   F   Base Device Drivers
bos.rte.devices_msg        5.1.0.50   C   F   Device Driver Messages
bos.rte.diag               5.1.0.50   C   F   Diagnostics
bos.rte.edit               5.1.0.50   C   F   Editors
bos.rte.filesystem         5.1.0.54   C   F   Filesystem Administration
bos.rte.iconv              5.1.0.25   C   F   Language Converters
bos.rte.ifor_ls            5.1.0.50   C   F   iFOR/LS Libraries
bos.rte.im                 5.1.0.50   C   F   Input Methods
bos.rte.install            5.1.0.54   C   F   LPP Install Commands
bos.rte.jfscomp            5.1.0.25   C   F   JFS Compression
bos.rte.libc               5.1.0.55   C   F   libc Library
bos.rte.libcfg             5.1.0.35   C   F   libcfg Library
bos.rte.libcur             5.1.0.50   C   F   libcurses Library
bos.rte.libdbm              5.1.0.0   C   F   libdbm Library
bos.rte.libnetsvc           5.1.0.0   C   F   Network Services Libraries
bos.rte.libpthreads        5.1.0.51   C   F   libpthreads Library
bos.rte.libqb               5.1.0.0   C   F   libqb Library
bos.rte.libs               5.1.0.50   C   F   libs Library
bos.rte.loc                5.1.0.52   C   F   Base Locale Support
bos.rte.lvm                5.1.0.54   C   F   Logical Volume Manager
bos.rte.man                5.1.0.35   C   F   Man Commands
bos.rte.methods            5.1.0.50   C   F   Device Config Methods
bos.rte.misc_cmds          5.1.0.36   C   F   Miscellaneous Commands
bos.rte.net                 5.1.0.0   C   F   Network
bos.rte.odm                5.1.0.51   C   F   Object Data Manager
bos.rte.printers           5.1.0.53   C   F   Front End Printer Support
bos.rte.security           5.1.0.53   C   F   Base Security Function
bos.rte.serv_aid           5.1.0.52   C   F   Error Log Service Aids
bos.rte.shell              5.1.0.54   C   F   Shells (bsh, ksh, csh)
bos.rte.streams            5.1.0.37   C   F   Streams Libraries
bos.rte.tty                5.1.0.53   C   F   Base TTY Support and Commands
bos.svprint.fonts           5.1.0.0   C   F   System V Print Fonts
bos.svprint.hpnp            5.1.0.0   C   F   System V Hewlett-Packard JetDirect
bos.svprint.ps              5.1.0.0   C   F   System V Print Postscript
bos.svprint.rte            5.1.0.52   C   F   System V Print Subsystem
bos.sysmgt.loginlic         5.1.0.0   C   F   License Management
bos.sysmgt.nim.client      5.1.0.51   C   F   Network Install Manager - Client Tools
bos.sysmgt.serv_aid        5.1.0.54   C   F   Software Error Logging and Dump Service Aids
bos.sysmgt.smit            5.1.0.52   C   F   System Management Interface Tool (SMIT)
bos.sysmgt.sysbr           5.1.0.54   C   F   System Backup and BOS Install Utilities
bos.sysmgt.trace           5.1.0.53   C   F   Software Trace Service Aids
bos.terminfo.ansi.data      5.1.0.0   C   F   Amer National Stds Institute Terminal Defs
bos.terminfo.com.data       5.1.0.0   C   F   Common Terminal Definitions
bos.terminfo.dec.data      5.1.0.15   C   F   Digital Equipment Corp. Terminal Definitions
bos.terminfo.ibm.data       5.1.0.0   C   F   IBM Terminal Definitions
bos.terminfo.pc.data        5.1.0.0   C   F   Personal Computer Terminal Definitions
bos.terminfo.rte           5.1.0.35   C   F   Run-time Environment for AIX Terminals
bos.terminfo.svprint.data   5.1.0.0   C   F   System V Printer Terminal Definitions
bos.txt.spell               5.1.0.0   C   F   Writer's Tools Commands
bos.txt.spell.data          5.1.0.0   C   F   Writer's Tools Data
bos.txt.tfs                 5.1.0.0   C   F   Text Formatting Services Commands
bos.txt.tfs.data            5.1.0.0   C   F   Text Formatting Services Data
bos.up                     5.1.0.55   C   F   Base Operating System Uniprocessor Runtime
csm.client                  1.1.1.3   C   F   Cluster Systems Management Client
csm.core                    1.1.1.3   C   F   Cluster Systems Management Core
devices.chrp.base.ServiceRM
                            1.1.0.50   C   F   RSCT Service Resource Manager
devices.chrp.base.diag     5.1.0.52   C   F   RISC CHRP Base System Device Diagnostics
devices.chrp.base.rte      5.1.0.53   C   F   RISC PC Base System Device Software (CHRP)
devices.chrp.pci.rte       5.1.0.25   C   F   PCI Bus Software (CHRP)
devices.common.IBM.async.diag
                            5.1.0.50   C   F   Common Serial Adapter Diagnostics
devices.common.IBM.disk.rte
                            5.1.0.25   C   F   Common IBM Disk Software
devices.common.IBM.ethernet.rte
                            5.1.0.55   C   F   Common Ethernet Software
devices.common.IBM.fda.diag
                            5.1.0.50   C   F   Common Diskette Adapter and Device Diagnostics
devices.common.IBM.fda.rte
                            5.1.0.25   C   F   Common Diskette Device Software
devices.common.IBM.ide.rte
                             5.1.0.0   C   F   Common IDE I/O Controller Software
devices.common.IBM.ktm_std.diag
                             5.1.0.0   C   F   Common Keyboard, Mouse, and Tablet Device Diagnostics
devices.common.IBM.ktm_std.rte
                             5.1.0.0   C   F   Common Keyboard, Tablet, and Mouse Software
devices.common.IBM.modemcfg.data
                             5.1.0.0   C   F   Sample Service Processor Modem Configuration Files
devices.common.IBM.pmmd_chrp.rte
                             5.1.0.0   C   F   CHRP Power Management Software
```

```
devices.common.IBM.ppa.diag
                          5.1.0.0    C    F    Common Parallel Printer Adapter Diagnostics
devices.common.IBM.ppa.rte
                          5.1.0.0    C    F    Common Parallel Printer Adapter Software
devices.common.IBM.scsi.rte
                          5.1.0.50   C    F    Common SCSI I/O Controller Software
devices.common.IBM.son.diag
                          5.1.0.50   C    F    GXT Common Graphics Adapter Diagnostics I
devices.common.IBM.ssa.diag
                          5.1.0.50   C    F    SSA Common Adapter Diagnostics
devices.common.IBM.ssa.rte
                          5.1.0.51   C    F    Common SSA Adapter Software
devices.common.IBM.tokenring.rte
                          5.1.0.10   C    F    Common Token Ring Software
devices.common.base.diag  5.1.0.50  C    F    Common Base System Diagnostics
devices.common.rspcbase.rte
                          5.1.0.0    C    F    RISC PC Common Base System Device Software
devices.graphics.com      5.1.0.35  C    F    Graphics Adapter Common Software
devices.isa_sio.IBM0017.diag
                          5.1.0.50   C    F    Audio Device Diagnostics
devices.isa_sio.IBM0017.rte
                          5.1.0.0    C    F    Audio Device
devices.isa_sio.IBM0019.diag
                          5.1.0.0    C    F    ISA Tablet Software (IBM0019) Diagnostics
devices.isa_sio.IBM0019.rte
                          5.1.0.35   C    F    ISA Tablet Software (IBM0019)
devices.isa_sio.PNP0303.diag
                          5.1.0.35   C    F    ISA Keyboard Diagnostics (PNP0303)
devices.isa_sio.PNP0400.rte
                          5.1.0.10   C    F    RISC PC Standard Parallel Port Adapter Software (PNP0400)
devices.isa_sio.PNP0501.rte
                          5.1.0.52   C    F    RISC PC Standard Serial Adapter Software (PNP0501)
devices.isa_sio.PNP0700.rte
                          5.1.0.50   C    F    RISC PC Diskette Adapter Software (PNP0700)
devices.isa_sio.PNP0F03.diag
                          5.1.0.0    C    F    ISA Mouse Diagnostics (PNP0F03)
devices.isa_sio.baud.rte  5.1.0.25  C    F    Audio Device Software
devices.isa_sio.chrp.8042.diag
                          5.1.0.0    C    F    ISA Keyboard & Mouse Diagnostics (CHRP)
devices.isa_sio.chrp.8042.rte
                          5.1.0.35   C    F    ISA Keyboard & Mouse Software (CHRP)
devices.isa_sio.chrp.ecp.diag
                          5.1.0.0    C    F    CHRP IEEE 1284 Parallel Port Adapter Diagnostics
devices.isa_sio.chrp.ecp.rte
                          5.1.0.35   C    F    CHRP IEEE1284 Parallel Port Adapter Software
devices.isa_sio.km.diag   5.1.0.0   C    F    ISA Keyboard & Mouse Diagnostics
devices.isa_sio.km.rte    5.1.0.35  C    F    ISA Keyboard, Tablet, and Mouse Software
devices.isa_sio.pnpPNP.400.diag
                          5.1.0.0    C    F    Standard Parallel Adapter Diagnostic (pnpPNP,400) Software
devices.isa_sio.pnpPNP.400.rte
                          5.1.0.0    C    F    RISC PC Standard Parallel Port Adapter Software (pnpPNP,400)
devices.isa_sio.pnpPNP.501.diag
                          5.1.0.0    C    F    CHRP Serial Adapter Diagnostics (pnpPNP.501)
devices.isa_sio.pnpPNP.501.rte
                          5.1.0.0    C    F    CHRP Serial Adapter Software (pnpPNP.501)
devices.isa_sio.pnpPNP.700.diag
                          5.1.0.0    C    F    CHRP Diskette Adapter Diagnostic Software (pnpPNP.700)
devices.isa_sio.pnpPNP.700.rte
                          5.1.0.0    C    F    CHRP Diskette Adapter Software (pnpPNP.700)
devices.msg.en_US.base.com
                          5.1.0.0    C    F    Base System Device Software Msgs - U.S. English
devices.msg.en_US.diag.rte
                          5.1.0.0    C    F    Device Diagnostics Messages - U.S. English
devices.msg.en_US.rspc.base.com
                          5.1.0.0    C    F    RISC PC Software Messages - U.S. English
devices.msg.en_US.sys.mca.rte
                          5.1.0.0    C    F    Micro Channel Bus Software Messages - U.S. English
devices.pci.00100100.com  5.1.0.35  C    F    Common Symbios PCI SCSI I/O Controller Software
devices.pci.00100300.diag
                          5.1.0.50   C    F    PCI 16-bit SCSI I/O Controller Diagnostics
devices.pci.00100b00.diag
                          5.1.0.15   C    F    SYM53C896 Dual Channel PCI-2 Ultra2 SCSI Adapter Diagnostics
devices.pci.00100b00.rte  5.1.0.10  C    F    SYM53C896 Dual Channel PCI SCSI I/O Controller
devices.pci.00100f00.rte  5.1.0.51  C    F    SYM53C8xxA PCI SCSI I/O Controller Software
devices.pci.00102100.diag
                          5.1.0.15   C    F    SYM53C1010 Dual Channel PCI Ultra3 SCSI Adapter Diagnostics
devices.pci.00102100.rte  5.1.0.0   C    F    SYM53C1010 PCI Ultra-3 SCSI I/O Controller Software
devices.pci.14101b02.X11  5.1.0.50  C    F    AIXwindows GXT6500P Graphics Adapter Software
devices.pci.14101b02.diag 5.1.0.0   C    F    GXT6500P Graphics Adapter Diagnostics
devices.pci.14101b02.rte  5.1.0.51  C    F    GXT6500P Graphics Adapter Software
devices.pci.14101c02.X11  5.1.0.50  C    F    AIXwindows GXT4500P Graphics Adapter Software
devices.pci.14101c02.diag 5.1.0.0   C    F    GXT4500P Graphics Adapter Diagnostics
devices.pci.14101c02.rte  5.1.0.51  C    F    GXT4500P Graphics Adapter Software
```

```
devices.pci.14103e00.diag
                          5.1.0.35    C    F    IBM PCI Tokenring Adapter (14103e00) Diagnostics
devices.pci.14103e00.rte  5.1.0.51    C    F    IBM PCI Token-Ring Adapter Software
devices.pci.14106e01.X11  5.1.0.50    C    F    AIXwindows GXT4000P Graphics Adapter Software
devices.pci.14106e01.diag 5.1.0.0     C    F    GXT4000P Graphics Adapter Diagnostics
devices.pci.14106e01.rte  5.1.0.51    C    F    GXT4000P Graphics Adapter Software
devices.pci.14107001.X11  5.1.0.50    C    F    AIXwindows GXT6000P Graphics Adapter Software
devices.pci.14107001.diag 5.1.0.0     C    F    GXT6000P Graphics Adapter Diagnostics
devices.pci.14107001.rte  5.1.0.51    C    F    GXT6000P Graphics Adapter Software
devices.pci.14108e00.X11  5.1.0.50    C    F    AIXwindows GXT3000P Graphics Adapter Software
devices.pci.14108e00.diag 5.1.0.0     C    F    GXT3000P Graphics Adapter Diagnostics
devices.pci.14108e00.rte  5.1.0.50    C    F    GXT3000P Graphics Adapter Software
devices.pci.14109100.diag 5.1.0.0     C    F    SSA Adapter (14109100) Diagnostics
devices.pci.14109100.rte  5.1.0.15    C    F    SSA Adapter (14109100) Software
devices.pci.1410b800.X11  5.1.0.50    C    F    AIXwindows GXT2000P Graphics Adapter Software
devices.pci.1410b800.diag 5.1.0.0     C    F    GXT2000P Graphics Adapter Diagnostics
devices.pci.1410b800.rte  5.1.0.50    C    F    GXT2000P Graphics Adapter Software
devices.pci.1410ff01.diag
                          5.1.0.50    C    F    10/100Mbps Ethernet PCI Adapter II Diagnostics
devices.pci.1410ff01.rte  5.1.0.51    C    F    10/100 Mbps Ethernet PCI Adapter II Software
devices.pci.23100020.diag
                          5.1.0.51    C    F    IBM PCI 10/100 Mb Ethernet Adapter (23100020) Diagnostics
devices.pci.23100020.rte  5.1.0.50    C    F    IBM PCI 10/100 Ethernet Adapter Software
devices.pci.86808404.com  5.1.0.0     C    F    Common ISA Bus Software
devices.pci.86808404.rte  5.1.0.50    C    F    ISA Bus Software
devices.pci.PNP0A03.rte   5.1.0.0     C    F    PCI Bus Bridge Software
devices.pci.ad100501.rte  5.1.0.51    C    F    IDE Adapter Driver for Winbond 553F Chip Software
devices.pci.isa.rte       5.1.0.0     C    F    ISA Bus Bridge Software (CHRP)
devices.pci.pci.rte       5.1.0.0     C    F    PCI Bus Bridge Software (CHRP)
devices.scsi.disk.diag.com
                          5.1.0.51    C    F    Common Disk Diagnostic Service Aid
devices.scsi.disk.diag.rte
                          5.1.0.51    C    F    SCSI CD_ROM, Disk Device Diagnostics
devices.scsi.disk.rspc    5.1.0.0     C    F    RISC PC SCSI CD-ROM, Disk, Read/Write Optical Software
devices.scsi.disk.rte     5.1.0.54    C    F    SCSI CD-ROM, Disk, Read/Write Optical Device Software
devices.scsi.tape.diag    5.1.0.50    C    F    SCSI Tape Device Diagnostics
devices.scsi.tape.rspc    5.1.0.0     C    F    RISC PC SCSI Tape Device Software
devices.scsi.tape.rte     5.1.0.51    C    F    SCSI Tape Device Software
devices.serial.sb1.X11    5.1.0.0     C    F    AIXwindows 6094-030 Spaceball 3-D Input Device Software
devices.ssa.IBM_raid.rte  5.1.0.51    C    F    SSA Raid Manager Software
devices.ssa.disk.rte      5.1.0.51    C    F    SSA DASD Software
devices.sys.pci.rte       5.1.0.52    C    F    PCI Bus Software
devices.tty.rte           5.1.0.51    C    F    TTY Device Driver Support Software
ifor_ls.base.cli          5.1.0.25    C    F    License Use Management Runtime Code
ifor_ls.msg.en_US.base.cli
                          5.1.0.0     C    F    LUM Runtime Code Messages - U.S. English
invscout.com              2.1.0.1     C    F    Inventory Scout Microcode Catalog
invscout.ldb              2.1.0.3     C    F    Inventory Scout Logic Database
invscout.msg.en_US.rte    1.5.0.0     C    F    Inventory Scout Messages - U.S. English
invscout.rte              2.1.0.2     C    F    Inventory Scout Runtime
ipfx.adt                  2.2.0.0     C    F    IBM Information Presentation
                                                Facility Development Kit/6000
ipfx.msg.en_US.adt        2.2.0.0     C    F    English ISO8859-1 message and grammer files
ipfx.msg.en_US.rte        2.2.0.0     C    F    IPF Messages - U.S. English
ipfx.rte                  2.2.0.0     C    F    Information Presentation Facility Runtime
perfagent.tools           5.1.0.51    C    F    Local Performance Analysis & Control Commands
perl.rte                  5.6.0.0     C    F    Perl Version 5 Runtime Environment
printers.msg.en_US.rte    5.1.0.0     C    F    Printer Backend Messages - U.S. English
printers.rte              5.1.0.50    C    F    Printer Backend
rpm.rte                   3.0.5.35    C    F    RPM Package Manager
rsct.core.auditrm         2.2.1.30    C    F    RSCT Audit Log Resource Manager
rsct.core.errm            2.2.1.30    C    F    RSCT Event Response Resouce Manager
rsct.core.fsrm            2.2.1.30    C    F    RSCT File System Resource Manager
rsct.core.gui             2.2.1.30    C    F    RSCT Graphical User Interface
rsct.core.hostrm          2.2.1.30    C    F    RSCT Host Resource Manager
rsct.core.rmc             2.2.1.30    C    F    RSCT Resource Monitoring and Control
rsct.core.sec             2.2.1.30    C    F    RSCT Security
rsct.core.sr              2.2.1.30    C    F    RSCT Registry
rsct.core.utils           2.2.1.30    C    F    RSCT Utilities
rsct.msg.EN_US.core.auditrm
                          2.2.0.0     C    F    RSCT Audit Log RM Msgs - U.S. English (UTF)
rsct.msg.EN_US.core.errm  2.2.0.0     C    F    RSCT Event Response RM Msgs - U.S. English (UTF)
rsct.msg.EN_US.core.fsrm  2.2.0.0     C    F    RSCT File System RM Msgs - U.S. English (UTF)
rsct.msg.EN_US.core.gui   2.2.0.0     C    F    RSCT GUI Msgs - U.S. English (UTF)
rsct.msg.EN_US.core.hostrm
                          2.2.0.0     C    F    RSCT Host RM Msgs - U.S. English (UTF)
rsct.msg.EN_US.core.rmc   2.2.0.0     C    F    RSCT RMC Msgs - U.S. English (UTF)
rsct.msg.EN_US.core.sec   2.2.0.0     C    F    RSCT Security Msgs - U.S. English (UTF)
rsct.msg.EN_US.core.sr    2.2.0.0     C    F    RSCT Registry Msgs - U.S. English (UTF)
rsct.msg.EN_US.core.utils 2.2.0.0     C    F    RSCT Utilities Msgs - U.S. English (UTF)
rsct.msg.en_US.core.auditrm
                          2.2.0.0     C    F    RSCT Audit Log RM Msgs - U.S. English
rsct.msg.en_US.core.errm  2.2.0.0     C    F    RSCT Event Response RM Msgs - U.S. English
```

```
rsct.msg.en_US.core.fsrm   2.2.0.0   C   F   RSCT File System RM Msgs - U.S. English
rsct.msg.en_US.core.gui    2.2.0.0   C   F   RSCT GUI Msgs - U.S. English rsct.msg.en_US.core.hostrm
                           2.2.0.0   C   F   RSCT Host RM Msgs - U.S. English
rsct.msg.en_US.core.rmc    2.2.0.0   C   F   RSCT RMC Msgs - U.S. English
rsct.msg.en_US.core.sec    2.2.0.0   C   F   RSCT Security Msgs - U.S. English
rsct.msg.en_US.core.sr     2.2.0.0   C   F   RSCT Registry Msgs - U.S. English
rsct.msg.en_US.core.utils  2.2.0.0   C   F   RSCT Utilities Msgs - U.S. English
sysmgt.help.en_US.websm    5.1.0.0   C   F   WebSM Extended Helps - U.S. English
sysmgt.help.msg.en_US.websm
                           5.1.0.0   C   F   WebSM Context Helps - U.S. English
sysmgt.msg.en_US.sguide.rte
                           5.1.0.0   C   F   TaskGuide Viewer Messages - U.S. English
sysmgt.msg.en_US.websm.apps
                           5.1.0.0   C   F   WebSM Client Apps. Messages - U.S. English
sysmgt.sguide.rte          5.1.0.50  C   F   TaskGuide Runtime Environment
sysmgt.websm.apps          5.1.0.50  C   F   Web-based System Manager Applications
sysmgt.websm.diag          5.1.0.50  C   F   Web-based System Manager Diagnostic Applications
sysmgt.websm.framework     5.1.0.50  C   F   Web-based System Manager Client/Server Support
sysmgt.websm.icons         5.1.0.50  C   F   Web-based System Manager Icons
sysmgt.websm.rte           5.1.0.50  C   F   Web-based System Manager Runtime Environment
sysmgt.websm.webaccess     5.1.0.50  C   F   WebSM Web Access Enablement
xlC.aix50.rte              5.0.2.2   C   F   C Set ++ Runtime for AIX 5.0
xlC.cpp                    5.0.2.0   C   F   C for AIX Preprocessor
xlC.msg.en_US.cpp          5.0.2.0   C   F   C for AIX Preprocessor Messages--U.S. English
xlC.msg.en_US.rte          5.0.2.0   C   F   C Set ++ Runtime Messages--U.S. English
xlC.rte                    5.0.2.1   C   F   C Set ++ Runtime
xldb.msg.en_US             1.2.2.4   C   F   IBM XLDB Source Level Debugger Messages
xlfcmp                     5.1.1.0   C   F   XL Fortran Compiler
xlfcmp.msg.en_US           5.1.1.0   C   F   XL Fortran Compiler Messages - U.S. English
xlfrte                     7.1.1.3   C   F   XL Fortran Runtime
xlfrte.aix43               7.1.1.3   C   F   XL Fortran Runtime Environment AIX 4.3 Libraries
xlfrte.aix51               7.1.1.3   C   F   XL Fortran Runtime Environment AIX 5.1 Libraries
xlfrte.msg.EN_US           7.1.1.0   C   F   XL Fortran Runtime Environment Messages - U.S. English UTF-8
xlfrte.msg.En_US           7.1.1.0   C   F   XL Fortran Runtime Environment Messages - U.S. English IBM-850
xlfrte.msg.JA_JP           7.1.1.0   C   F   XL Fortran Runtime Environment Messages - Japanese UTF-8
xlfrte.msg.Ja_JP           7.1.1.0   C   F   XL Fortran Runtime Environment Messages - Japanese
xlfrte.msg.en_US           7.1.1.0   C   F   XL Fortran Runtime Messages - U.S. English
xlfrte.msg.ja_JP           7.1.1.0   C   F   XL Fortran Runtime Environment Messages - Japanese IBM-eucJP
xlopt.rte                  1.2.0.0   C   F   Optimization Runtime
xlsmp.msg.en_US.rte        1.3.5.0   C   F   XL SMP Runtime Messages - U.S. English
xlsmp.rte                  1.3.5.0   C   F   SMP Runtime Library
AIX-rpm                  5.1.0.51-1  C   R   Virtual Package for libraries and shells installed on system
                                             (/bin/rpm)
cdrecord                   1.9-4     C   R   A command line CD/DVD recording program. (/bin/rpm)
mkisofs                    1.13-4    C   R   Creates an image of an ISO9660 filesystem. (/bin/rpm)
mtools                     3.9.8-1   C   R   Programs for accessing MS-DOS disks without mounting the
                                             disks. (/bin/rpm)
```

AIX 5L Version 5.1 Bundle

To support system administrators, the following sample bundle file is provided to ensure that all nessesary filesets are installed to run CATIA and ENOVIA products. The contents of the bundle information are filesets that should be installed afer an inital CD installation. Most of the required filesets to keep the machine up and running are installed with the initial installation. The bundle shown in Example A-3 may be used as a skeleton to add individual filesets to meet all system requirements.

Example: A-3   AIX 5L Version 5.1 Bundle file

```
#====================================================================
# AIX 5L Version 5.1 Bundle
#====================================================================
# INSTALLATION BUNDLE FOR CATIA 4.2.4 Refresh 2 and CATIA V5 Release 1x

#========================================================================
#
# DEVICES FILESETS
#
#========================================================================
#
# GXT4000P
devices.pci.14106e01
#
# GXT6000P
devices.pci.14107001
#
# GXT4500P
devices.pci.14101c02
#
# GXT6500P
devices.pci.14101b02

# Java130 Develop
Java130.adt.debug
Java130.adt.includes

# Java130 Extention
Java130.ext.commapi
Java130.ext.jaas
Java130.ext.plugin
#
# GL for additional application
OpenGL.GL32.adt.include
OpenGL.GL32.adt.util
OpenGL.GL32.rte

# OpenGL
OpenGL X-Extensions
OpenGL.OpenGL_X.rte
OpenGL.OpenGL_X.dev



OpenGL.OpenGL_X.adt.include
OpenGL.OpenGL_X.adt.samples

# Phigs extention to X
PEX_PHIGS.graPHIGS.rte
```

```
PEX_PHIGS.graPHIGS.adt.clients
PEX_PHIGS.graPHIGS.adt.gks

# X11
X11.compat.adt.Motif12
X11.compat.fnt.pc
X11.compat.lib.
X11.vfb

# Dos utilities
bos.dosutil

# GXT6500P rte + X11 + dig
devices.pci.14101b02.X11
devices.pci.14101b02.diag
devices.pci.14101b02.rte

# GXT4500P rte + X11 + dig
devices.pci.14101c02.X11
devices.pci.14101c02.diag
devices.pci.14101c02.rte

# GXT4000P rte + X11 + dig
devices.pci.14106e01.X11
devices.pci.14106e01.diag
devices.pci.14106e01.rte

# GXT6000P rte + X11 + dig
devices.pci.14107001.X11
devices.pci.14107001.diag
devices.pci.14107001.rte

# Ifor Graphical User Interface
ifor_ls.java.gui

# OpenGL GXT6500P Device Dependent Software
OpenGL.OpenGL_X.dev.pci.14101b02.PPC64

# OpenGL GXT4500P Device Dependent Software
OpenGL.OpenGL_X.dev.pci.14101c02.PPC64

# OpenGL GXT4000P Device Dependent Software
OpenGL.OpenGL_X.dev.pci.14106e01.PPC64

#OpenGL GXT6000P Device Dependent Software
OpenGL.OpenGL_X.dev.pci.14107001.PPC64

# OpenGL Virtual Frame Buffre
OpenGL.OpenGL_X.dev.vfb

# # PEX/graPHIGS GXT6500P Device
PEX_PHIGS.dev.pci.14101b02

# # PEX/graPHIGS GXT4500P Device
PEX_PHIGS.dev.pci.14101c02

# # PEX/graPHIGS GXT4000P Device
PEX_PHIGS.dev.pci.14106e01

# # PEX/graPHIGS GXT6000P Device
```

B

Checklists

This appendix provides system administrators with a checklist to prepare the nessesary environment. We used these lists to check the installation before and after a migration installation, but you can also use them to create a master client based on AIX 5L Version 5.1 and then clone it to all your workstations in a NIM environment.

Client checklist

Depending on your customer's choice, a mix of migration methods and installation from scratch will be done. Espesically for a base installation, Table B-1 should be used to examine the current system settings and to ensure that all important environment parameters are set to their proper values. Also for the first migration installation, the checklist could be used to check the system environment parameter before and after the migration process.

Table B-1   Workstation checklist

Workstation checklist		
Task	Value	Checked
Environment		
Check actual microcode		
Check Timezone (TZ) parameter		
Check /etc/security/limits (fsize,...)		
Check crontab entries		
Check vmtune parameter		
Check number of users simultanously login		
Check number of processes per user		
Check /etc/inittab entries		
Check SpaceBall or SpaceMouse driver		
Check local login for root user		
Check X server settings (-x mbx replaced by -x dbe)		
Networking		
Check /etc/hosts		
Check DNS settings		
Check /etc/netsvc.conf or NSORDER variable		
Check NIS (yp) settings		
Check NFS settings (mount tables)		
Check NFS automounter settings and files		
Check .rhosts for individual script execution		
Check LUM (Licence) definition		
CATIA and ENOVIA		
Basic settings CAT_MEM or V5MEM		
Enlarge /tmp (for *.roll and *.save files)		
Check asyncron IO (for VPM DB clients)		
Licences for Fortran (nodelocked or LUM Server)		
Licences for C++ (nodelocked or LUM Server)		

Server checklist

Before and after a migration of a server machine, all entries in Table B-2 should be checked.

Table B-2   Server checklist

Server checklist		
Task	Value	Checked
Environment		
Check actual microcode (processor and adapter)		
Check Timezone (TZ) parameter		
Check /etc/security/limits (fsize,...)		
Check vmtune parameters		
Check crontab entries		
Check /etc/inittab entries		
Check local lofin for root user		
Networking		
Check /etc/hosts entries		
Check DNS settings		
Check /etc/netsvc.conf or NSORDER variable		
Check NIS (yp) settings		
Check NFS settings (export tables)		

Abbreviations and acronyms

AIX	Advanced Interactive Execute		*YP*	Yellow Page
APAR	Authorized Program Analysis Report			
BOS	Base Operating System			
CDE	Common Desktop Environment			
CD-ROM	Compact Disc - Read Only Memory			
CHRP	Common Hardware Reference Platform			
CPU	Central Processing Unit			
DNS	Domain Name System			
FTP	File Transfer Program			
GB	Giga Byte			
HMC	Hardware Management Console			
IBM	International Business Machines Corporation			
ITSO	International Technical Support Organization			
JFS	Journaled File System			
KSH	Korn Shell Environment			
LAN	Local Area Network			
LPP	Licence Program Product			
LUM	Licence Use Managemant			
LVM	Logical Volume Manager			
MCA	Micro Channel Architecture			
ML	Maintenance Level			
NFS	Network File System			
NIM	Network Installation Management			
NIS	Network Information Service			
NLS	National Language Support			
OS	Operating System			
PreP	Power Reference Platform			
RISC	Reduced Instruction Set Computing			
RTE	Runtime Environment			
SMIT	System Management Interface Tool			
SPOT	Shared Product Object Tree			
TCL/TK	Tool Command Language / Toolkit			
TZ	Time Zone			
VPM	Virtual Product Modeling			
WDFM	Withdrawn from Marketing			
WDFS	Withdrawn from Service			

Related publications

The publications listed in this section are considered particularly suitable for a more detailed discussion of the topics covered in this Redpaper.

IBM Redbooks

For information on ordering these publications, see "How to get IBM Redbooks" on page 50. Note that some of the documents referenced here may be available in softcopy only.

► *AIX Version 4.3 to 5L Migration Guide*, SG24-6924

► *AIX 5L Differences Guide Version 5.1 Edition*, SG24-5765-01

► *AIX 5L Differences Guide Version 5.2 Edition*, SG24-5765-02

► *NIM: From A to Z in AIX 4.3,* SG24-5524

Other publications

These publications are also relevant as further information sources:

► *AIX 5L Version 5.1 Installation Guide,* SC23-4374

► *AIX 5L Version 5.1 Network Installation Management Guide and Reference (available online only)*

Online resources

These Web sites and URLs are also relevant as further information sources:

► CATIA V5 / ENOVIA DMU V5: Supported hardware configuration for UNIX

http://www.catia.com/your_catia/html/hwunix2.htm

► Product Lifecycle Management Support

http://techsupport.services.ibm.com/engineering/support
http://techsupport.services.ibm.com/engineering/techknow?expanded=catiacfg#catia
http://techsupport.services.ibm.com/server/mdownload

► IBM eServer pSeries Information Center:

http://publib16.boulder.ibm.com/pseries/en_US/infocenter/base/

► Korn Shell information and home page

http://www.kornshell.com

► AIX Fix Distribution Center

http://www-912.ibm.com/eserver/support/fixes/fcgui.jsp

► Fortran runtime support page

http://www.ibm.com/servers/eserver/pseries/solutions/plm/plm_download.html

► C runtime support page

https://techsupport.services.ibm.com/server/aix.fixsearch51

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AIX 4.3 to AIX 5L Migration in a CATIA and ENOVIA Environment

This IBM Redpaper is a guide covering the migration of the AIX operating system from AIX Version 4.3 to AIX 5L in a CATIA or ENOVIA environment.

This document was written to guide an AIX administrator through the steps of a migration to AIX 5L, and provides the experiences made during the migration from AIX Version 4.

Professionals wishing to acquire a better understanding of the migration process may consider reading this document. The intended audience includes:

► Customers

► Sales and marketing professionals

► Technical support professionals

► IBM Business Partners

This publication does not replace the latest pSeries and PLM marketing materials and tools. It is intended as an additional source of information that, together with existing sources, may be used to enhance your knowledge of software migration. During the development of this publication, several migrations were performed to successfully verify software migration on different machines and configurations.

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