

## AIX 4.1 Packaging

### Filesets

AIX 4.1 has approximately 2,200 packages called filesets that can be separately installed. For example, the `bos.rte.up` fileset contains the uniprocessor kernel and the `bos.rte.archive` fileset contains archive commands such as `tar`, `cpio`, and `backup`. This new packaging allows installation of only what is necessary, generally requiring less disk space than AIX Version 3. Since each fileset can be serviced separately, fixes for AIX 4.1 are smaller and more localized. Fixes are delivered in fileset packages and are cumulative; that is, each new level of a fileset contains all previous changes.

### VRMF

In AIX 3.2, Program Temporary Fix (PTF) numbers were used for revision control, making it difficult to determine the level of a system component. In AIX 4.1, Version Release Modification Fix (VRMF) levels are used for revision control. For example, the AIX 4.1.1 `bos.rte.up` fileset had a VRMF of 4.1.1.0, indicating Version 4, Release 1, Modification Level 1, Fix Level 0.

**Version number:** Incremented to indicate a new product. For example, AIX Version 4 is a different product from AIX Version 3. New versions contain major functional enhancements and typically come two or more years apart.

**Release number:** Incremented to show a product enhancement; we expect new releases of AIX Version 4 will come approximately one year apart.

**Modification level:** Incremented for two reasons: accumulation of maintenance and support of new processors or devices. Neither the maintenance nor the new support enhances the behavior of the product on existing systems. When the modification level is adjusted, the fix level is reset to zero. We expect modification levels of AIX Version 4 three to six months apart.

**Fix level:** Incremented when a fix is added to a fileset. When the modification level is adjusted, the fix level is reset to zero. Fixes for AIX Version 4 are produced on customer demand.

Maintenance and fix levels for AIX Version 4 do not change application interfaces; applications that are written to documented interfaces should function identically on different maintenance and fix levels.

### Costs

Customers are charged when upgrading to a new version or release. There is no charge for maintenance or fixes, although there may be a media charge unless the fix is obtained electronically through FixDist.

### When to Update to the Next Level

Here are guidelines for updating to the next level:

- ◆ Update to the next fix level only when requiring a fix for a particular problem.
- ◆ Update to the next maintenance level when you need support for new hardware or want to apply preventive maintenance
- ◆ Update to the next version or release to take advantage of new or enhanced function

## Overview of AIX 3.2.5 Common Mode

When an application is compiled on AIX, libraries are bound statically within the application. In AIX 3.2.5 and prior releases, these static libraries were compiled in Power Mode. When the application is run on a PowerPC, the Power instructions in those static libraries will be emulated in software. The application will run successfully, but the emulation may decrease performance slightly.

Compiling in *Common Mode* generates common binaries between the POWER, POWER2, and PowerPC processors. By building an application using this feature, the static libraries that are bound in the application will be compiled in full Common Mode. Since the application will have been built on AIX 3.2.5, it will be fully compatible with AIX 3.2.5. Also, since future releases of AIX will preserve the upward binary compatibility of executables wherever possible, the applications built using this feature will run well on future releases of AIX, including AIX 4.1.1.

We recommend that AIX Version 3.2.5 plus the above feature be the development platform for applications intended to run on AIX Version 3.2.x and AIX Version 4.1.1. In AIX Version 3.2.5, the IBM XL C Version 1.3, C Set ++ Version 2.1, XL Fortran Version 3.1, and XL Pascal Version 1.1.3 compilers support the common mode of compilation.

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**Important Note:** This toolkit of libraries will provide full common mode if your application is compiled in common mode or if you do not bind shared libraries statically (override the shared attribute).

For more information, refer to the document *All About AIX 4.1*. Information is also available through IBM's World Wide Web server on the Internet. To access, open the following URL:

<http://www.austin.ibm.com/services/vendors/aix41/aix41.html>.

To receive the AIX 3.2.5 Common Mode Static Libraries, send a note to [ibmspsc@austin.ibm.com](mailto:ibmspsc@austin.ibm.com) or call the SPSC Support Line at 1-800-445-3440.