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## **Table of Contents**

Additional Core Enhancements (ACE)	
The Workstation Quality Pack .....	3
New Features/Functionality .....	4
Visualize-fxe	
USB Devices	
Consolidated NFS Patches	
Automatic Configuration of Graphics Cards	
IDE CD-ROM Drives	
Distributed Single Logical Screen	
Year 2000 Compliance .....	6
System Administration Information .....	6
Updates and Upgrades	
Using Software Distributor	
Installing Patches on a System with ACE Software	
System Administration Tasks .....	10
Cold Installing with ACE Software	
Updating with ACE Software	
Loading the Quality Pack	
Verifying Installation of ACE Software	
Removing ACE Software from Your Computer .....	19

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# Additional Core Enhancements

What does “ACE” mean? An ACE bundle is, as its name implies, a collection of enhancements to the HP-UX 10.20 Operating System. This ACE release (December 1999) extends HP-UX to support new hardware and software features. In addition to extending the capabilities of HP-UX 10.20, the ACE software corrects any critical or serious defects discovered since the original release of HP-UX 10.20. Other than correcting defects, ACE software does not modify the behavior of the base operating system. After you load ACE software on your computer, you will still be running HP-UX 10.20.

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## **The Workstation Quality Pack**

The Workstation Quality Pack is an important part of HP's software support strategy. We thoroughly test the Quality Pack and require it to meet the same software quality standards as a new operating system before we will release it. HP will update the Quality Pack two times per year, updating and adding new patches based on feedback from HP-UX application partners, support organizations, and end users. Our intent is to supply our customers with a high quality HP-UX operating system, and to improve that quality over time. HP Response Center engineers recommend loading the Quality Pack as the first step in resolving common HP-UX 10.20 software problems.

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## **New Features /Functionality**

### **VISUALIZE-*fxe***

VISUALIZE-*fxe* is HP's new entry-level, low cost, full-featured 3D graphics card which replaces the Visualize-*fx2* and Visualize-EG (8 plane, 2D) products. It is a full 24-bit true color graphics device for both 2D and 3D applications and markets.

### **USB Devices**

New four-port USB Hub (D6804A) and a three-button (no scroll wheel) USB Mouse. The USB Mouse is part of the A4983 USB Kit. Although not it's primary use model, the USB hub can be used to extend the length of the mouse/keyboard cable.

### **Consolidated NFS Patches**

HP has combined Networking product enablement patches that deliver the ONC+/NFS Networking ACE products as well as the ONCE+/NFS versions of older products contained in the older ONC/NFS product set. In addition, the new patches deliver enhancements to certain commands an executable scripts. These scripts will automatically modify the existing NFS configuration file (/etc/rc.config.d/nfsconf) which will select the desired behavior of the patched system.

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## **Automatic Configuration of Graphics Cards**

New patches deliver enhancements that preserve the relationship between /dev/crt devices special files and graphics devices. This applies to systems in which a graphics device is added or moved.

## **IDE CD-ROM Drives**

Minor changes have been made to the HP-UX IDE driver to accommodate slight differences in the implementation of the IDE protocol in IDE CD-ROM drives from various manufacturers. This driver delivered will also work with the old IDE/ATAPI CD-ROM drives.

## **Distributed Single Logical Screen (SLS/d)**

This functionality was originally released in 10.20 ACE (June 1999) and cooperates with HP OpenGL to enable the sharing of 2D and 3D OpenGL window across displays connected to multiple technical workstations.

The significant changes are:

- Improved mouse performance when running display list OpenGL applications.
- Ability to move the default visual to the image planes.

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## **Year 2000 Compliance**

The Year 2000 patches in the Quality Pack are necessary to make your computer Year 2000 compliant, but they are not sufficient; they only update the core operating system to address date-handling problems known at the time we released those patches.

In order to make your systems fully Year 2000 compliant, you may also need to upgrade application software from HP and independent software vendors. For information about Year 2000 compliance and patches for HP layered software, please visit the Hewlett-Packard website on this topic:

<http://www.hp.com/go/year2000>

## **System Administration Information**

Installing ACE bundles extend the functionality of HP-UX 10.20. You must install HP-UX 10.20 along with ACE software in order to use the functionality described in the New Features/Functionality section of this booklet.

## **Updates and Upgrades**

If you are running HP-UX 10.0, 10.01, or 10.10, you must update your system to HP-UX 10.20 before you can load the

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Additional Core Enhancements or install a Quality Pack bundle. If you need to update many workstations to HP-UX 10.20 and plan to use a cold-install process, you may benefit from using the HP-UX 10.20 Workstation Transition Toolkit. For more information about the Toolkit, visit the following URL:

[http://www.software.hp.com/OS\\_transition/](http://www.software.hp.com/OS_transition/)

### **Using Software Distributor**

This booklet describes how to load ACE software for HP-UX 10.20 on a PA-RISC workstation using the SAM interface to Software Distributor (SD-UX) tools. Most of the information here also applies when directly invoking SD commands `swinstall`, `swlist`, `swremove`, etc. from the command line, while still using the graphical user interface. If you need information about using the SD tools via the terminal interface, consult the manual *Managing HP-UX Software with SD-UX*.

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**WARNING**

You must load the Additional Core Enhancements as an entire bundle. HP recommends that you also load the Workstation Quality Pack for HP-UX 10.20 ACE from the Support Plus media. If you load individual patches from the Workstation ACE or the Networking ACE, the on-line Installed Product Database will not indicate that the ACE bundle is installed.

This booklet focuses on the case of loading the ACE software from a CD-ROM. However, most of the instructions also apply to DDS (tape) media or updating from a remote depot across a network. The only difference is the specification of the Source Depot Type.

**Installing Patches on a System with ACE Software**

When the ACE software is loaded on your computer, exercise caution in applying patches from other sources. Before adding any patch to HP-UX, you should compare it to the list of component patches in the ACE bundle. (You can find this information in the *Release Notes* document for the ACE software. Also consult

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the text files in the directory /tmp/PHTXT.)

**WARNING**

Do not “force” the loading of any patch that is superseded by a patch in an ACE bundle or Quality Pack. Loading an earlier version of one of these ACE patches may delete new features from your system. This action could leave your computer in a nonfunctional state.

If you cannot determine whether a specific patch is newer than the ACE software, contact your local HP Country Response Center or HP Sales and Service office for assistance.

Do not use the ACE software bundle as a source of individual patches to HP-UX. You should continue to obtain HP-UX patches from the HP Software Depot on the World Wide Web or the HP-UX Recommended Patches/Extension Software CD-ROM. If you need assistance to obtain a patch, contact your HP Country Response Center.

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## **System Administrator Tasks**

The following information is an abridged set of instructions to perform common system administration tasks. Consult the Installing and Updating HP-UX Workstation Additional Core Enhancements for 10.20 manual for additional information and more detailed instructions.

### **Cold Installing with ACE Software**

You can cold install from the Install/Update/Recovery CD-ROM that is packaged with this booklet. Hereafter, we will refer to this as the *ACE install media*.

The version of the install utility on the ACE install media will automatically load both the base operating system (HP-UX 10.20) and the Workstation ACE bundle that is present on the media.

The following is an abbreviated description of the cold install process. It focuses on the steps that are specific to cold installing the ACE software. The majority of the steps in this process are the same as in past releases of HP-UX 10.20.

1. Load the ACE install media in the CD-ROM drive for your workstation and boot the system. Follow the usual procedure for

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interacting with the boot process.

2. Select the CD-ROM drive as your boot device.
3. Select the cold install action in the **Install HP-UX** menu and continue as usual.
4. Stop when you reach the install utility screen with this title:

```
HP-UX Install Utility - View/Modify Basic Configuration
```

If you wish to load the ONC+ bundle as part of this installation, then mark **Load 10.20 Networking ACE** as **True**. This will ensure that **swinstall** loads the **s700 Networking ACE** bundle during the last stage of the install process. By default, this bundle is **not** loaded.

Resume the install process, by selecting **OK**.

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**WARNING**

If you choose to interact with SD-UX `swinstall`, do not select either the Workstation ACE bundle (B6193\*A) or the Networking ACE bundle (B6378\*A). The install utility will automatically load the Workstation ACE and optionally load the Networking ACE bundle if you selected the Load 10.20 Networking ACE item as described above. If you explicitly selected either of these bundles via the interactive interface to `swinstall`, you may end up with a non-functioning system.

5. Continue with the install process as you normally would. After you have responded to all questions, the install utility will finish the process.
6. Once the install utility completes loading the software, it will reboot your workstation.
7. After your workstation has rebooted, you may proceed with the instructions on “Loading the Quality Pack”, which occur later in this booklet.
8. See the section below on *Verifying Installation of ACE*

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*Software* for information about how to determine what ACE software is loaded on a system.

### **Updating HP-UX with ACE Software**

If you are already running HP-UX 10.20, you are ready to use SD-UX to load ACE software on your system.

**NOTE**

The update process for ACE bundles now involves loading software from **two** CD-ROMs, if you load the Quality Pack. The necessary discs are included in the box with this booklet.

1. Load the Install/Update/Recovery CD-ROM in your drive and mount it, if necessary. (You can use SAM to perform this operation, but make sure you uncheck the “Mount at Every System Boot” option.)
2. Select Software Management from the main SAM menu.
3. Select Install Software to Local Host to invoke swinstall.

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4. Specify the following information:

Source Depot Type: Local CDRom

*(If you are loading software from DDS media, then select the Local Tape option.)*

Source Host Name: *<hostname>*

Source Depot Path: *<CD mount path>*

After verifying that this information is correct, select the “OK” button.

5. SAM will list the software bundles and products on the CD. Go to the Actions menu, and select Match What Target Has.

Note that the Match Target approach will load all ACE bundles from the ACE media onto your system. If you want to install only the Networking ACE (B6378\*A), you must explicitly select it— via the Mark for Install action— rather than using the “Match Target” approach.

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**6. Go to the `Actions` menu and select the `Install (analysis)...` item.**

**7. After the analysis phase completes, you can select the `Logfile` button to check for errors, warnings, and notes. If you are ready to continue, select "OK" to install the software.**

**8. Following the install phase, the `swinstall` command will reboot your workstation. (This is necessary because the ACE bundle contains kernel enhancements.)**

**9. After your system reboots, you have completed the first stage of updating with the ACE software. Remove the ACE media from the drive and, if you choose to load the `Quality Pack` bundle, proceed to the next section.**

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## Loading the Quality Pack

1. Insert the Support Plus CD-ROM and mount it.
2. Select Software Management from the main SAM menu.
3. Select Install Software to Local Host to invoke `swinstall`.
4. Specify the following information:

Source Depot Type: *<CD mount path>*

Source Host Name: *<hostname>*

Source Depot Path: *<cdrom>/700QPK1020*  
*(where <cdrom> refers to the mount point for the CD-ROM)*

Once you have verified that this information is correct, select the "OK" button.

5. SAM will list the Quality Pack bundle(s) in the Support Plus depot. Go to the Actions menu, and select Match

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What Target Has.

6. Go to the Actions menu and select the `Install(analysis)...item`.

7. After the analysis phase completes, you can select the “Logfile” button to check for errors, warnings, and notes. If you are ready to continue, select “OK” to install the Quality Pack.

8. Following the install phase, the `swinstall` command will reboot your workstation. (This is necessary because the Quality Pack contains kernel patches.)

9. After your system has rebooted, you have finished updating with the ACE software. You can now remove the Support Plus media from the drive.

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## **Verifying Installation of ACE Software**

To verify that ACE software is loaded on your computer, execute this command:

```
/usr/sbin/swlist -l bundle | grep ACE
```

The output of these commands is a list of all ACE bundles resident on your computer. See the table on the next page for more information about the most recent ACE bundles. Starting April 1999, HP has modified the ACE bundles to remove references in the Installed Product Database to older ACE bundles.

For up-to-date information about ACE bundles for workstations or copies of older ACD bundles, check the HP Software Depot on the World Wide Web:

<http://www.software.hp.com/ACE>

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## **Removing ACE Software from Your Computer**

Removing an ACE bundle or the Quality Pack from your system can lead to unexpected consequences, including a non-functional or partially functioning operating system. This is true even if you have installed the software on an older-model workstation that does not require the ACE software in order to run.

The ACE bundles and Quality Packs are collections of patches. As such, they interact with each other, and also with patches that you load individually on your system. You, the system administrator, should not remove one of these bundles unless you thoroughly understand the HP-UX 10.x patch program and the limitations of the SD-UX tools when loading, replacing, or deleting patches from a system.

If you choose to remove an ACE bundle or Quality Pack from your system, first make a backup copy of your file system, so that you can roll back to a known good system in case you experience problems with the software removal process. After you complete the backup, remove the software following the guidelines in the SD-UX documentation and the HP-UX 10.x Patch Program white paper.

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## **Related HP-UX Documentation**

*Upgrading from HP-UX 9.x to 10.x*  
p/n B3782-90073

*Installing and Updating HP-UX 10.x*  
p/n B2355-90126

*Installing and Updating HP-UX Workstation Additional  
Core Enhancements for 10.20*  
p/n B3782-90795

*Managing HP-UX Software with SD-UX (for HP-UX 10.20)*  
p/n B2355-90107

*Support Plus User's Guide*  
p/n B3782-90812

For release notes and white papers on HP-UX 10.20 and ACE software, consult the `/usr/share/doc` directory in the file system.

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