HP ALLBASE/4GL
Installation Guide

For HP-UX Systems

HEWLETT PACKARD

NOTICE

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HP ALLBASE/4GL
Installation Guide

Introduction

This guide describes the procedure for installing release B.04 and later of the HP ALLBASE/4GL developer system and the HP ALLBASE/4GL run-time environment.

The guide is written for HP-UX system administrators who are familiar with the basic procedures for using the HP-UX operating system. This guide assumes that you have an HP 9000 computer system running under the HP-UX operating system.

HP-UX Revision

To use this release of ALLBASE/4GL, you must use the HP-UX revisions shown below.

HP 9000 System	HP-UX Revision
Series 300	Revision 8.0 or later
Series 800	Revision A.08.00 or later

Do not attempt to install this release of ALLBASE/4GL under earlier releases of HP-UX.

To check the revision of HP-UX, enter the following command at the HP-UX prompt:

```
uname -r Return
```

Disk Space

You must have at least 10 megabytes of free disk space on your system to load the ALLBASE/4GL developer system. The ALLBASE/4GL run-time environment needs 5 megabytes of free disk space.

If you're not sure how much disk space is available on your system, use the `df` command to check. This command shows the amount of free disk space in 512-byte blocks. The following table lists the number of blocks of free disk space you need to install ALLBASE/4GL.

ALLBASE/4GL System	Blocks Required for Installation
Developer System	20000 blocks
Run-Time Environment	10000 blocks

On AXE (Application Execution Environment) systems, the `df` command may not be available. You can still proceed with the installation because the ALLBASE/4GL installation script includes an automatic test that checks the amount of available disk space.

Caution	Do not start the installation procedure until you have read through the following overview of the process and followed the precautions listed under "Before You Start."

Overview

The installation procedure involves the following steps:

Step 1   If you are updating an existing HP ALLBASE/4GL system, you must unload your current applications from the existing system.

Step 2   Invoke the HP-UX update facility. This process installs two files on your system that will install ALLBASE/4GL on your system. Since the installation requires you to respond to some

prompts, you must invoke the install script after the update facility has finished.

Step 3   Run the `hp4_install` or the `hp4rt_install` script. Each script performs some preliminary checking, and then reads the ALLBASE/4GL fileset installed in the previous step. The script then calls a customizing script that completes the installation.

Step 4   Define the HP-UX user names for ALLBASE/4GL users.

Step 5   If you are updating an existing ALLBASE/4GL system, you must reload your applications.

Note   The `hp4_install` and `hp4rt_install` scripts apply only to ALLBASE/4GL installations under an HP-UX directory that is normally part of the host machine file system.

              If you are using a LAN (local area network), or installing ALLBASE/4GL on a mounted volume that is normally part of another HP-UX system, do not attempt to use the `hp4_install` script. You must use the `tar` utility to copy the ALLBASE/4GL file system from the Disk file installed from the update facility, and then run the `customize` script manually. Refer to "Manual Installation and Customization" for information about running the `customize` script manually.

Limitations

The ALLBASE/4GL installation procedure creates a default directory structure for ALLBASE/4GL. This directory structure is described in appendix C of the *HP ALLBASE/4GL Developer Administration Manual* and chapter 5 of the *HP ALLBASE/4GL Run-Time Administration Manual*. This directory structure will be satisfactory for most ALLBASE/4GL sites.

If you make any changes to the default directory structure, you must inform the ALLBASE/4GL system administrator of any precautions or changes to the documented procedures that may be required as a result. Some of the

procedures described in the *HP ALLBASE/4GL Developer Administration Manual* and the *HP ALLBASE/4GL Run-Time Administration Manual* assume that ALLBASE/4GL has been installed under the standard directory structure. These include the file backup and restoration procedures.

We suggest that you do not make any changes to the standard ALLBASE/4GL directory structure unless you are fully familiar with the HP-UX operating system.

Before You Start

User Id   You must be logged in to the HP-UX system as superuser to install ALLBASE/4GL.

System   Before you start the ALLBASE/4GL installation, we
Backup   recommend that you create a full system backup. During the installation procedure you might inadvertently crash the system. If you do not have backup copies of your system files and the system does crash, you will not be able to restore any lost files.

Printers   If you intend to use a printer with ALLBASE/4GL, the printer should be installed in HP-UX before you start the ALLBASE/4GL installation procedure. Refer to the *HP-UX System Administrator Manual* for details of the HP-UX printer installation procedure.

Upgrading an Existing ALLBASE/4GL or HP Today System

The steps shown here apply only if you are upgrading an existing ALLBASE/4GL or HP Today system. If this is a new installation, turn to "Installation Procedure." If you are updating an existing system, follow the steps shown here before you start the installation procedure.

If you are updating an existing system, you *must* unload all applications that you want to use with the new system *before* you install the new release of ALLBASE/4GL.

Caution	You may lose your applications if you do not unload them **before** you attempt to update an existing system.

You cannot unload applications from a run-time environment. After installing ALLBASE/4GL you will have to reload the applications.

Caution	Due to changes in the HP ALLBASE/SQL environment, previous applications using HP ALLBASE/SQL need to have their SQL logic blocks regenerated using ALLBASE /4GL version B.04.00 or later before they can be run.
	If you are using the run-time version of ALLBASE/4GL, contact your application supplier to get a new copy of your application generated on ALLBASE/4GL version B.04.00 or later before proceeding with the installation.

If you are upgrading an existing HP Today system, the names of directories, environment variables, scripts, application files, printer names, and message catalog names have been altered to indicate that they are part of ALLBASE/4GL. For instance, the directory HPtoday is now called HP4GL, and the directory HPtodayrt is now called HP4GLrt. The installation procedure will automatically alter the names of existing items.

Unloading Applications from a Developer System

To unload any existing applications from your existing system, sign on to your current ALLBASE/4GL system as the administrator. You can then use the application unloading screen to unload the applications that you want to transfer to the new ALLBASE/4GL system. If you have any versions of applications, remember to enter the names of the versions on the application unloading screen.

Caution

If you do not enter the names of versions you want to unload in the `Versions` fields on the application unloading screen, the versions will not be unloaded with the base application.

You may want to use the administrator documentation screen in the administrator utilities menu to print a report of the applications on your system. This report will show the details of the applications, and the names of any versions of the applications. Refer to the *HP ALLBASE/4GL Developer Administration Manual* for more information about the application unloading screen and the administrator documentation screen.

Application .uld (.tdy) Files and .dbm Files

The application unloading utility for ALLBASE/4GL creates an HP-UX file *name*.`uld` (HP Today creates an HP-UX file *name*.`tdy`) for each application, where *name* is the name of the application. The complete definition of an application that uses an HP ALLBASE/SQL database consists of the .`uld` (or .`tdy`) file for the application, plus the database module containing the stored sections for the application. The database module file for an application is identified as *name*.`dbm` where *name* is the name of the application.

ALLBASE/4GL creates these files in the HP-UX directory that contains the ALLBASE/4GL system files (S-files).

During installation, the ALLBASE/4GL customizing procedure automatically moves all files in the S-file directory to an `s.old` directory. Any files in the `s.old` directory (if it exists) are overwritten. To ensure that the unloaded applications are not lost during the update, you must move the .`uld` (or .`tdy`) files to a safe directory before you start the update. We suggest that you

move all the `.uld` (or `.tdy`) files that you want to keep into the auxiliary files directory.

Note

Accompanying the product name change from HP Today to ALLBASE/4GL, `.tdy` files have been renamed `.uld` files, and `.tdyfs` files have been renamed `.ufs` files. During installation, all `.tdy` and `.tdyfs` files under the HP Today directory structure will be automatically renamed.

You may reload existing `.tdy` or `.tdyfs` files after installation. However, you cannot use a `.tdyfs` file with a `.uld` file, nor can you use a `.ufs` file with a `.tdy` file. To avoid confusion, you should rename all application files existing in directories not under the HP Today or ALLBASE/4GL directory structure.

Administrator Definitions

When you update to the new ALLBASE/4GL system, all existing administrator definitions for the system are overwritten by the defaults provided by the new ALLBASE/4GL system. As a result, the following definitions will be lost during the update:

- User names and passwords.

- Menu item security definitions.

- System specifications for date and decimal number format, the currency float symbol, and the HP-UX environment specifications.

- Logic command synonyms and communication area synonyms.

- Master titles.

You may want to print reports of these items using the administrator documentation menu before you perform the update.

Installation Procedure

This section contains an overview of the installation process, followed by detailed descriptions of the steps you must follow to install ALLBASE/4GL.

How the Installation Works

The HP-UX update facility does not update the ALLBASE/4GL product on the system. The update facility loads an install script and a tar file from the distribution media into the HP-UX **/tmp** directory.

The files copied into the **/tmp** directory are:

For ALLBASE/4GL Developer	hp4_install
	HP4GL.tar
For ALLBASE/4GL Run-time	hp4rt_install
	HP4GLrt.tar

You then run the `hp4_install` or the `hp4rt_install` script. This script performs some checking, and installs the fileset in the destination directory you specify.

The script then calls the `customize` script to complete the installation.

Throughout the installation procedure, the script performs various checks to determine if the installation can proceed safely. At various points, the script asks you if you want to continue with the installation. You can terminate the installation by typing `QUIT` in response to these query messages.

On HP terminals, the script displays `NO`, `YES`, and `QUIT` function keys. You can use these function keys to respond to query messages where appropriate.

Some Preparations

To install ALLBASE/4GL, log in to HP-UX as superuser.

Before you start the installation, check the following points.

ALLBASE/4GL Users

If you are updating an existing system, you must make sure that nobody is using the product when you start the update, and that nobody attempts to sign on to the product while you are updating the system.

Printer Scheduler

We suggest that you shut down the printer scheduler before you start the installation. During the installation procedure, the `customize` script shuts down the printer scheduler if it is running. This does not cause any loss of data, but any reports that are printing when the scheduler is shut down will be restarted from the beginning when the scheduler is restarted.

If any users are currently printing large reports, you may want to wait until the reports finish printing before you start the installation procedure.

Starting the Installation

To start the installation, mount the update media and invoke the HP-UX update facility to load the ALLBASE/4GL installation files on your system. You must be logged in to HP-UX as superuser. The update procedure may have been done previously when updating other products on your system; check with your system administrator to see if this has already been completed.

To invoke the update facility, enter the following command:

```
/etc/update Return
```

Then follow the procedures normally associated with the update facility. The filesets for ALLBASE/4GL are AB-4GLDEV (Developer system) and AB-4GLRT (Run-time environment).

Once the update has completed, change directory to `/tmp` with the following command.

```
cd /tmp Return
```

Running the hp4_install Script

To run the `hp4_install` or `hp4rt_install` script, enter the appropriate command at the HP-UX prompt.

```
./hp4_install Return
```

       or

```
./hp4rt_install Return
```

The script performs a number of pre-installation checks. These include:

- Checking your user id. (You must be logged in as superuser.)

- Checking whether the printer scheduler is running. If it is running, the script displays a message asking whether you want to continue. If you do not want the printer scheduler to be shut down, enter **no**, and rerun the script at a time when the printer scheduler may be shut down.

  If you enter **yes**, the `customize` script, which is automatically invoked later on, will shut down the printer scheduler.

Destination Directory

The `hp4_install` or `hp4rt_install` script then prompts you to specify the destination directory for the ALLBASE/4GL system.

To install ALLBASE/4GL under the default configuration, press Return at this prompt. In the default configuration, ALLBASE/4GL is installed directly under the HP-UX root directory. The top directory of the ALLBASE/4GL developer system is /HP4GL, or /HP4GLrt for the ALLBASE/4GL run-time environment.

You can install ALLBASE/4GL under a different directory by specifying the directory pathname at this prompt. However, you may need to modify the normal ALLBASE/4GL file backup, restoration, data file logging and data file recovery procedures if you do not use the default configuration.

Installation Checking

After you have specified the destination directory, the script performs some further checking. These checks determine:

■ Whether there is enough disk space available to install ALLBASE/4GL.

■ Whether an HP Today or ALLBASE/4GL system already exists under the specified destination directory. If an existing system does exist, the installation procedure displays a warning message and asks if you want to continue. If you continue, the `hp4_install` script will overwrite the new system and will alter the names of all HP Today items to their new ALLBASE/4GL names.

■ Whether any users are running an existing ALLBASE/4GL or HP Today system.

■ Whether a backed-up set of ALLBASE/4GL or HP Today S-files exist in an `s.old` directory under the specified destination directory. (This may occur if you are updating an existing ALLBASE/4GL or HP Today system, or if you repeat the installation process and attempt to install ALLBASE/4GL twice.)

The installation process aborts if you do not have enough disk space available in the destination file system, or if it detects that any users are accessing an existing ALLBASE/4GL or HP Today system. If any other conditions are detected, the script displays warning messages and asks if you want to continue.

If all conditions are satisfactory, the script reads the ALLBASE/4GL fileset from the tar file into the specified destination directory. This will take a few minutes. This process creates the directory structure for ALLBASE/4GL if it does not already exist.

The `hp4_install` or `hp4rt_install` script then calls the `customize` script.

ALLBASE/4GL Directories

The installation process builds the directory structure described in appendix C of the *HP ALLBASE/4GL Developer Administration Manual* and section 5 of the *HP ALLBASE/4GL Run-Time Administration Manual*. If you install ALLBASE/4GL under the default configuration, the script builds the ALLBASE/4GL directory directly under the HP-UX root directory. The top

directory of the ALLBASE/4GL developer system is **/HP4GL**, and the top
directory of the ALLBASE/4GL run-time environment is **/HP4GLrt**.

If you install ALLBASE/4GL in a directory other than the root directory,
the installation process builds the ALLBASE/4GL directory as */path***/HP4GL**
(*/path***/HP4GLrt** for run-time environments) where */path* is the directory
pathname for the destination directory.

ALLBASE/4GL customize Script

After the **hp4_install** or **hp4rt_install** script has loaded the
ALLBASE/4GL fileset, it automatically runs the **customize** script to complete
the installation process. This script:

- Attempts to create a user **HP4GL** (**HP4user** for the run-time environment) and
  group called **HP4GL**. If there is an existing user called **HPtoday** (or **HP4user**),
  or an existing group **HPtoday**, it is renamed as **HP4GL**, **HP4user** or **HP4GL**,
  respectively.

- Transfers the ownership of the ALLBASE/4GL fileset to the user **HP4GL**
  (**HP4user**) and the group **HP4GL**.

- Builds the ALLBASE/4GL printer control subsystem.

Mounted File Systems

If the destination directory for the ALLBASE/4GL installation is on a
mounted volume other than the HP-UX root volume, the **customize** script
displays a message asking you if the destination device is normally part of the
current HP-UX system.

Enter **YES** to this message if the destination device is normally part of the
host HP-UX system, or enter **NO** if the destination device is normally mounted
on a different HP-UX system. If you enter **NO** or **QUIT** at this message, the
customize script terminates. You must then run the **customize** script
manually.

Environment Variables and User Names

The `customize` script attempts to set the ALLBASE/4GL environment variables in the ALLBASE/4GL sign-on scripts, and to adjust the entries it creates in the `/etc/passwd` file to suit the destination directory. In some circumstances, the `customize` script may not be able to identify the correct directory pathname to make these changes. Under these conditions, the `customize` script displays a warning message, and you must edit the `HP4GL/hp4gl` or `HP4GLrt/hp4gl` script file and the `/etc/passwd` file manually after you have completed the installation.

Upgrading an Existing System

If you are updating from HP Today, the `HPToday` or `HPtodayrt` directory will be renamed `HP4GL` or `HP4GLrt` before the `customize` script is run. The `customize` script checks the files and subdirectories (if any) that already exist in the `HP4GL` or `HP4GLrt` directory.

If the `HP4GL/s` or `HP4GLrt/s` directory exists, the script moves any files in this directory to a directory `HP4GL/s.old` or `HP4GLrt/s.old`. Note that if the `s.old` directory already exists, the `customize` script may overwrite any files in this directory.

If the `customize` script detects a non-empty backup volume catalog file, it converts it to serial format, and then installs a new, empty backup volume catalog file in the `HP4GL/control/backup_new` or `HP4GLrt/control/backup_new` directory. You can overwrite the existing catalog with the new empty catalog and delete the `HP4GLrt/control/backup_new` or `HP4GL/control/backup_new` directory if you wish.

The `customize` script displays a series of messages under these circumstances.

Message Catalog

New message catalog files are installed in subdirectories under
`/usr/lib/nls`. The messages catalog files consist of two parts: `HP4GL.dat`
and `HP4GL.idx`. The `customize` script installs the messages catalog
files under `/usr/lib/nls/american` and links them to files under
`/usr/lib/nls/n-computer`.

The `customize` script moves any existing messages catalog files (`HP4GL.dat`
and `HP4GL.idx`) to the `s.old` directory. You may delete these files if you wish.

Completing the Installation

At the end of the installation procedure, the `customize` script displays a
message to confirm that the script has run to completion. Press (Return) to
acknowledge this message.

If the printer scheduler was running when you started the `hp4_install` script,
it is restarted automatically.

You are then returned to the HP-UX prompt.

ALLBASE/4GL Users

Your next task is to complete the HP-UX definitions for the `HP4GL` or `HP4user`
user and the `HP4GL` group.

Since the requirements of different sites will vary, this guide can't describe
detailed techniques for defining ALLBASE/4GL users. However, the following
options are available.

■ You can use a single user name such as `HP4GL` for all ALLBASE/4GL users.
  When a user logs in to HP-UX under this name, HP-UX automatically runs
  a script to start ALLBASE/4GL.

■ You can allocate a different user name for each ALLBASE/4GL user. In this
  case, you may want HP-UX to run ALLBASE/4GL automatically when

the user logs in. Alternatively, if the user needs access to HP-UX facilities, or applications other than ALLBASE/4GL, you can allow the user to log in to HP-UX and then run a script to start ALLBASE/4GL by entering a command at the HP-UX prompt.

ALLBASE/4GL includes a script file `HP4GL` in the `HP4GL` or `HP4GLrt` directory. This script runs ALLBASE/4GL on standard terminals. Additional script files are supplied for monitors: the script file `wmhp4gl` runs ALLBASE/4GL on monitors under HP Windows/9000, and the script `x11hp4gl` runs ALLBASE/4GL on monitors under X11 (the X Window System).

In all cases, the user must enter an ALLBASE/4GL user name (and optionally a password) to sign on to ALLBASE/4GL. The *ALLBASE/4GL Developer Administration Manual* and the *ALLBASE/4GL Run-Time Administration Manual* describe the procedures for defining ALLBASE/4GL user names and passwords.

Defining Users

The installation procedure creates a user called `HP4GL` (`HP4user` for the run-time environment), and a user group called `HP4GL`. (If an existing HP Today system existed, the HP Today equivalent is renamed to this user and user group.)

The script defines the user with an identification number of 50, and the group with an identification number of 50. If a user or group with the same name already exists, the script does not create another user or group. If a user number 50 or a group number 50 already exists, the script uses the next highest available user or group number. If the `customize` script cannot create the user `HP4GL`or `HP4user` or the group `HP4GL` it displays a warning message.

The user names `HP4GL` and `HP4user` cannot be used directly. If you install ALLBASE/4GL under the default configuration, the following entry is created in the `/etc/passwd` file:

    HP4GL:*:50:50:HP4GL User Name:/HP4GL:/HP4GL/hp4gl

or

    HP4user:*:50:50:HP4GL Run-time User Name:/HP4GLrt:/HP4GLrt/hp4gl

To allow a user to log in to HP-UX under the name `HP4GL` (`HP4user`) you must
edit the entry created by ALLBASE/4GL in the `etc/passwd` file to read as
follows:

```
HP4GL:,..:50:50:HP4GL User Name:/HP4GL:/HP4GL/hp4gl
```

or

```
 HP4user:,..:50:50:HP4GL Run-time User Name:/HP4GLrt:/HP4GLrt/hp4gl
```

For an ALLBASE/4GL installation under a directory other than the root
directory, you may need to edit this entry to include the appropriate directory
pathname.

When the first user logs in to HP-UX under this name, the system prompts the
user to enter a new password. When the user next logs in under this name,
HP-UX automatically executes the script `/HP4GL/hp4gl` or `/HP4GLrt/hp4gl`.
This script takes the user directly to the ALLBASE/4GL sign-on screen.

Alternatively, you can create other HP-UX user names in the ALLBASE/4GL
user group, or even transfer the ownership of the ALLBASE/4GL files to
another group.

The `customize` script creates the following entry in the `/etc/group` file:

```
HP4GL:*:50:HP4GL
```

or

```
HP4GL:*:50:HP4user
```

This entry must be present to allow group ownership of the ALLBASE/4GL
fileset to be assigned to the group `HP4GL`.

Signing On to ALLBASE/4GL

Note

You *must* set the `TERM` HP-UX environment variable before you run ALLBASE/4GL. ALLBASE/4GL uses TERM to establish the terminal type and to set the display characteristics appropriately. If TERM is undefined, ALLBASE/4GL displays an error message and terminates.

You can now test the installation by signing on to ALLBASE/4GL. To run ALLBASE/4GL on a terminal, you can log in to HP-UX under the name `HP4GL` or `HP4user` if you have allowed access under this user name. HP-UX should run ALLBASE/4GL after you log in, and present the ALLBASE/4GL sign-on screen automatically.

You can also run ALLBASE/4GL on a terminal or terminal emulator when you are logged in as root or any other user who has access to the `HP4GL` or `HP4GLrt` directory by entering the command `/HP4GL/hp4gl` or `/HP4GLrt/hp4gl` at the HP-UX prompt.

To run ALLBASE/4GL on a bit mapped monitor, you must use HP Windows/9000 or X11 on the X Window System. To use HP Windows/9000, enter the command `/HP4GL/wmhp4gl` or `/HP4GLrt/wmhp4gl` at the HP-UX prompt. To use the X Window System, enter the command `/HP4GL/x11hp4gl` or `/HP4GLrt/x11hp4gl` at the HP-UX prompt. These commands start the window manager, and then run ALLBASE/4GL. If you are using a terminal emulator you can call hp4gl directly.

If you have installed ALLBASE/4GL under a directory other than the root directory, you must prefix these commands with the appropriate directory pathname. You may also need to edit the `HP4GL` script file in the `HP4GL` or `HP4GLrt` directory to set the environment variable HP4GLPATH correctly. (Refer to appendix C of the *ALLBASE/4GL Developer Administration Manual* for further details.)

ALLBASE/4GL Sign-On Screen

When the system displays the ALLBASE/4GL sign-on screen, you can sign on to ALLBASE/4GL as system administrator by entering the user name `administ`.

Refer to the *HP ALLBASE/4GL Developer Administration Manual* or the *HP ALLBASE/4GL Run-Time Administration Manual* for further details about the ALLBASE/4GL administrator application.

Completing an Upgrade

The following procedures only apply if you are upgrading an existing ALLBASE/4GL or HP Today system. If you are installing ALLBASE/4GL for the first time, turn to "Printer Installation."

If you have upgraded an existing ALLBASE/4GL or HP Today system, you must reload the applications you unloaded before starting the upgrade. You must also reenter the existing definitions for user names and passwords, system specifications, logic command and communication area synonyms, and master titles.

Loading Applications

To reload your existing applications, you must move the application `.uld` or `.tdy` files into the HP-UX directory containing the ALLBASE/4GL S-files. If you moved the `.tdy` or `.uld` files to the ALLBASE/4GL auxiliary file directory, you can move them back to the S-file directory by signing on to ALLBASE/4GL and then pressing the `System Keys`, `More Keys`, and `Op. System` function keys to create a temporary HP-UX shell.

To move the files, enter the following command at the HP-UX prompt:

```
mv $HP4APATH/*.uld $HP4SPATH Return
```

or

```
mv $HP4APATH/*.tdy $HP4SPATH Return
```

If you are updating an ALLBASE/4GL or HP Today run-time environment and you have copies of your applications on the original source media supplied by your ALLBASE/4GL or HP Today application developer, load them into the `/HP4GLrt/s` directory.

You can now use the application loading screen in the administrator utilities menu to load your applications into the new ALLBASE/4GL system. Do not attempt to run any applications yet.

When you are reloading applications, a message indicating an S-file inconsistency may be displayed. If so, you may wish to check and correct your S-files, using several utilities supplied within the developer environment. Refer to chapter 12 of the *HP ALLBASE/4GL Developer Reference Manual* for details.

HP ALLBASE/SQL

If any applications use HP ALLBASE/SQL, the SQL logic blocks must be regenerated before the application can continue.

Existing Customized Terminfo Files

Termdata files are an enhancement to the standard terminfo package. Previously customized files were placed in the `/usr/lib/terminfo` directory. These files are now placed in the `/usr/lib/termdata` directory.

If you have any existing customized terminfo files that you wish to continue using, you must move these terminfo files into the new termdata subdirectory.

Menu Item Security

The application unloading and loading process invalidates all menu item security definitions for applications. You must reenter the menu item security definitions for your applications.

Existing Applications that use HP ALLBASE/SQL

Database module (.dbm) files from applications created with earlier releases of ALLBASE/4GL are not compatible with the B.04 release of ALLBASE/4GL.

If your applications use HP ALLBASE/SQL, you must do the following:

ALLBASE/4GL Developer Sites. Load the applications as outlined above, sign on to ALLBASE/4GL as a developer user, and select `SQL Logic Blocks` from the Generates menu. This action generates all SQL logic blocks and creates the .dbm file.

ALLBASE/4GL Run-only Sites. Contact your ALLBASE/4GL application developer and arrange the delivery of an upgrade tape, cartridge, or disks with a copy of the regenerated applications (.uld files) and the database modules (.dbm files). Load the applications as outlined above.

Printer Installation

The normal ALLBASE/4GL installation process makes all the printers that are currently installed in the HP-UX system available to ALLBASE/4GL automatically. To use a printer with ALLBASE/4GL, it must be specified as an ALLBASE/4GL printer on the system-wide definition screen in the ALLBASE/4GL Administrator. You must sign on to the administrator application and complete the system definition screen before you can use a printer with ALLBASE/4GL. Even if you accept the default entries on this screen, you must press the `Commit Data` function key to create an entry in an internal ALLBASE/4GL printer control file. Refer to the *HP ALLBASE/4GL Developer Administration Manual* or the *HP ALLBASE/4GL Run-Time Administration Manual* for further information about this screen.

Installing Subsequent Printers

An executable script file `pr_install` in the `HP4GL/lib` or `HP4GLrt/lib` directory allows you to install subsequent printers in ALLBASE/4GL.

To install a printer, it must first be installed in HP-UX using the `lpadmin` command. (Refer to the *HP-UX System Administrator Manual* for details of

this command.) You can then install the printer in ALLBASE/4GL with the commands shown in the following steps. You must be logged in as superuser to execute these commands.

Step 1   Shut down the printer scheduler. The command to do this is:

        `/usr/lib/lpshut` `Return`

Step 2   Install the printers in ALLBASE/4GL. The command is:

        `/HP4GL/lib/install/pr_install` `Return`

For the ALLBASE/4GL run-time environment, this command is:

        `/HP4GLrt/lib/install/pr_install` `Return`

If you have installed ALLBASE/4GL under a directory other than the root directory, you must prefix these commands with the appropriate directory pathname.

This command executes the `pr_install` script. This script makes all currently installed HP-UX printers available to ALLBASE/4GL, and rebuilds the ALLBASE/4GL printer control subsystem. To use a new printer in ALLBASE/4GL, it must be defined as an ALLBASE/4GL printer on the system definition screen in the ALLBASE/4GL administrator.

Step 3   Restart the printer scheduler. The command is:

        `/usr/lib/lpsched` `Return`

ALLBASE/4GL Printer Control Subsystem

The ALLBASE/4GL installation procedure builds a number of subdirectories and files in the **/usr/spool/lp** directory. These files must be present for the ALLBASE/4GL printer control subsystem to operate.

You can rebuild these files by running the **pr_install** script if necessary.

Manual Installation and Customization

Under some circumstances, you may not be able to use the `hp4_install` or `hp4rt_install` script to install ALLBASE/4GL. This may occur under the following conditions:

- You are installing ALLBASE/4GL on a mounted volume that is normally part of a different HP-UX system.

- You are using a LAN to install ALLBASE/4GL on a remote system.

- You have sufficient disk space via a symbolic link to another mounted volume, but insufficient disk space on the installation volume. (The `hp4_install` and `hp4rt_install` scripts do not follow symbolic links.)

Under these circumstances you can read the ALLBASE/4GL fileset manually using the HP-UX `tar` utility. You can then run the `customize` script manually to complete the installation.

Reading the Fileset

To read the ALLBASE/4GL fileset manually, change your current directory to be the destination directory for the ALLBASE/4GL system.

If you are installing ALLBASE/4GL over a LAN, you may need to copy the ALLBASE/4GL fileset into a suitable directory on the host system, and then copy the fileset to the destination system using the LAN.

To read the ALLBASE/4GL developer system fileset manually, use the following command from the destination directory for the ALLBASE/4GL system.

```
tar -xvf /tmp/HP4GL.tar HP4GL system (Return)
```

To read the ALLBASE/4GL run-time environment system fileset manually, use the following command from the destination directory for the ALLBASE/4GL system.

```
tar -xvf /tmp/HP4GLrt.tar HP4GLrt system (Return)
```

System Directory Files

The commands shown above copy the entire ALLBASE/4GL fileset to the current HP-UX directory. If you have copied the ALLBASE/4GL fileset to a directory other than the HP-UX root directory, you must move some files to the `/system` directory to complete the installation of the ALLBASE/4GL fileset. This step is not necessary if you are installing ALLBASE/4GL under the HP-UX root directory.

If you are installing ALLBASE/4GL on a disk that is normally part of a different HP-UX system, you cannot perform this part of the installation until the disk is mounted on its normal HP-UX system.

Caution	The next two steps do **not** apply if you are installing ALLBASE/4GL under the HP-UX root directory. Executing these commands in the HP-UX root directory will damage the HP-UX file system.

You must execute these commands from the HP-UX directory containing the ALLBASE/4GL system.

To copy the system directory files to the correct directory, use the following command:

```
tar -cf - ./system | ( cd / ; tar xf - )  [Return]
```

You can now delete the `system` directory and the files under it from the directory containing the ALLBASE/4GL system. To do this, use the following command.

Caution	Do not execute this command in the HP-UX root directory.

```
/bin/rm -r system  [Return]
```

You can now run the `customize` script to complete the installation.

Running the customize Script

If you are installing ALLBASE/4GL on a disk that is normally part of a
different HP-UX system, you cannot run the customize script until the disk
has been mounted on its normal HP-UX system.

To run the customize script manually, use the following command. You must
run the customize script from the directory containing the ALLBASE/4GL
system.

`/system/HP4GL/customize` [Return]

　　　　or

`/system/HP4GLrt/customize` [Return]

Refer to "ALLBASE/4GL customize Script" for a description of the actions
performed by the customize script.