Install Pascal Workstation 3.25 on HP 9000/300 Series Computer

Installation makes use of the '.hpi' images of the original installation diskettes and will install the software to an HP-IB or SCSI hard disc formatted as an HFS partition. The image files can be copied onto 3.5" DS/DD diskettes using the *HPDir* utility running on a host PC; the diskettes can then be used boot the HP 9000/300 series workstation and install the software. Alternatively, the image files can be used directly with the *HPDrive* utility emulating an HP-IB diskette drive on a host PC. In either case, the host PC will required a compatible IEEE 488.2 GPIB interface card and an HP-IB interface cable.

The disc image set comprises:
- BOOT2 – contains the bootable SYSTM file and essential drivers. The version provided is customised to include support for HFS drives, the SCSI interface and LAN. There is also a custom AUTOSTART program.
- SYSVOL – system files
- ACCESS – Filer, Editor, Librarian and various interface drivers
- CMP- Pascal compilers
- ASM – Assembler, Debugger and Reverse Assembler
- FLTLIB – graphics libraries
- HFS – utilities for HFS discs
- DOC – examples and other documents

If you plan to install Pascal Workstation on the same hard disc as HP-UX then install HP-UX first and be sure to select short filenames. The disc needs to be setup to allow the Pascal Workstation to access it as follows:

- Boot HP-UX and login as root
- Edit the file /etc/passwd (e.g. using vi) and add the following lines (the second is only needed if you also plan to install BASIC/WS on the same disc):

```
pws:*:17:9:#Pascal Workstation user:/users/workstation/pws:/bin/false
basic:*:18:9:#BASIC Workstation user:/users/workstation/basic:/bin/false
```

- Edit /etc/group and add the following line:

```
workstation::9:basic,pws
```

- Execute the following command to write enable the root and shutdown HP-UX:

```
cd /
chmod 777
shutdown –h now
```

Install Workstation Pascal onto a Previously-Formatted HFS Volume

Follow this procedure to install without reformatting the hard drive. The drive must be already formatted as an HFS volume, for example by having installed BASIC/WS, an earlier version of Pascal Workstation or HP-UX with short file names. Any previous installation of Pascal Workstation will be overwritten but other files will be preserved.

1. Power-up only the diskette drive from which the installation media will be read and the one hard drive onto which the system will be installed.[a]

2. Insert the BOOT2 disc into the floppy drive, start the HP workstation and boot SYSTEM_P from the BOOT2 disc.[b]

3. After the system boots, insert the ACCESS disc in place of BOOT2 and type `F` to launch the filer. Using the command `V` (for VOLS) verify that the target hard disc drive is recognised as unit #11. Use `L` to get a directory listing and verify that it is the correct target.

4. Follow the procedure detailed on pages 336-337 of the User's Guide to copy the Pascal system files to the /WORKSTATIONS/SYSTEM directory on the hard drive. It may be convenient to create a subdirectory /WORKSTATIONS/SYSTEM/DOC for the contents of the DOC diskette. One can use the wildcard "=" to copy all files on a diskette, e.g. `F` to invoke file copy then `#3:=, #11:/WORKSTATIONS/SYSTEM/DOC/$` to copy all files to the target directory. A modified AUTOSTART file, named AUTOST2, is provided on BOOT2 and this can be copied to the hard drive in place of the original AUTOSTART file.[c] The modified version prompts for the correct time zone and permanently loads the Filer and Editor.

5. Follow the procedure detailed on page 338 of the User's Guide to make the SYSTEM_P file bootable. The OSINSTALL utility should be located in /WORKSTATIONS/SYSTEM after the steps detailed above.

Format or Re-format a Hard Drive and Install Workstation Pascal

Following this procedure will format the hard drive as an HFS volume, erasing any previous file system. Any files on the drive will be destroyed.

1. Power-up only the diskette drive from which the installation media will be read and the one hard drive onto which the system will be installed.[a]

2. Insert the BOOT2 disc into the floppy drive, start the HP workstation and boot SYSTEM_P from the BOOT2 disc.[b]

3. After the system boots, insert the ACCESS disc in place of BOOT2 and type `X` to execute a file, `MEDIAINIT` to specify the operation and #11: at the prompt to indicate the volume to be formatted. This creates a lif file system.

4. Insert the HFS disc and type X to execute a file, MKHFS to specify the operation and #11: at the prompt to indicate the volume. This creates an HFS directory structure on top of the lif-formatted disc.

5. After the HFS directory structure has been initialized, insert the ACCESS disc and type `F` to launch the filer. Using the command `V` (for VOLS) verify that the target volume #11 is recognized. Use `L` to get a directory listing and verify that the volume has an HFS directory structure with exactly one directory called lost+found.

6. Follow the procedure detailed on pages 336-337 of the User's Guide to copy the Pascal system files to the /WORKSTATIONS/SYSTEM directory on the hard drive. It may be convenient to create a subdirectory /WORKSTATIONS/SYSTEM/DOC for the contents of the DOC diskette. One can use the wildcard "=" to copy all files on a diskette, e.g. `F` to invoke file copy then `#3:=, #11:/WORKSTATIONS/SYSTEM/DOC/$` to copy all files to the target directory. A modified AUTOSTART file, named AUTOST2, is provided on BOOT2 and this can be copied to the hard drive in place of the original AUTOSTART file. The modified version prompts for the correct time zone and permanently loads the Filer and Editor.

7. Follow the procedure detailed on page 338 of the User's Guide to make the SYSTEM_P file bootable. The OSINSTALL utility should be located in /WORKSTATIONS/SYSTEM after the steps detailed above.

Notes

[a] If using a SCSI2SD drive emulator to provide the target hard drive, other emulated drives can be temporarily disabled through the SCSI2SD software.

[b] If using *HPDrive* with the hpi image files as the install source, invoke on the PC host with the command `hpdrive -9122 –d BOOT2.hpi`. When prompted to change discs, use `Ctrl-c` to 'eject' the current disk image and start *HPDrive* again with the new image file.

[c] Selecting the time zone allows for compatibility with HP-UX under which the battery-backed real-time clock is set to universal, rather than local, time.