Install BASIC/WS 6.4 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:
- B64SYS – contains the bootable SYSTM file and essential drivers. A customised auto start program (AUTOST2) has been added to the image of the original boot disc.
- B64BIN – binary system files
- B64UTIL – various utilities
- B64HFS – utilities for HFS discs
- B64MANX – example programs
- COMPILER – the BASIC 6.x compiler (originally released as a separate product)

If you plan to install BASIC/WS 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 BASIC system 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 Pascal Workstation on the same disc):

```
basic:*:18:9:#BASIC Workstation user:/users/workstation/basic:/bin/false
pws:*:17:9:#Pascal Workstation user:/users/workstation/pws:/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 BASIC/WS onto the Target Hard Drive

BASIC/WS can be installed onto a drive that is already formatted as an HFS volume, for example by having installed Pascal Workstation, an earlier version of BASIC/WS or HP-UX with short file names. In this case, existing files, including earlier versions of BASIC/WS, will be preserved. Alternatively, the target hard disc can be reformatted as part of the installation, destroying all information previously on the drive. The two procedures differ only in step 4 below.

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

2. Insert the B64SYS disc into the floppy drive, start the HP workstation and boot SYSTEM_B64 from the B64SYS disc.[b]
3. At the prompt, insert the B64BIN diskette in place of B64SYS and press F2 to continue loading binaries. This will complete the booting process.
4. Insert the B64HFS diskette and enter the command `LOAD "DISC_UTIL",1`. This loads and runs the HFS disc utilities package. If you want to **reformat** the drive with a new HFS partition, **destroying all previous file systems**, then select the option to initialize the drive and choose HFS as the format. Otherwise, to use an existing HFS partition, simply proceed to the next step.
5. Use the HFS disc utilities package to utility to copy the binary files and to install the bootable system file on the target hard drive. Binary files will be copied to /WORKSTATIONS/BIN6.4 and the system file will be installed as SYSTEMBA64 in the root directory.
6. Using BASIC commands, copy the contents of the B64UTIL, B64HFS and B64MANX into subdirectories under /WORKSTATIONS. This process is faster if wildcards are enabled with the command: `WILDCARDS UX; ESCAPE "\"`. For example, if the floppy drive is on the HP-IB interface at select code 7 and address 0, and the target drive is on the SCSI interface at select code 14 and address 06 then, with the B64MANX disc in the floppy drive, use the following commands:

```
CREATE DIR "/WORKSTATIONS/EXAMPLES:,1406"
COPY "*:,700" TO "/WORKSTATIONS/EXAMPLES:,1406"
```

7. Optionally, copy the program AUTOST2 from the B64SYS diskette to /WORKSTSATIONS/AUTOST. This customised auto start program will execute automatically each time the system boots from the target hard drive; it sets the time zone [c] and also draws a grid pattern filling the whole screen which is useful for adjusting your monitor.
8. Optionally, copy the BASIC compiler from the COMPILER diskette to the /WORKSTATIONS directory on the target hard drive.

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 B64SYS.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.