To: All Field Engineers

Date: April 30, 1987 (Updated from March 23)

From: Mike Ramsden & Jim Thompson

Subject: 8.2 UPDATE information and installation "gotchas"

IMPORTANT!
Because of: (a) the switch to "vinstall" for installing UNIX and application software, and (b) the various options for boot disk, it is no longer safe to use a generic 0-AC tape to fix systems which have corrupted root file systems. Doing so could make installing later software updates a very painful experience.

Therefore it is ESSENTIAL that XBKUP tapes be made for every system, and that these tapes get updated any time "vinstall" is invoked. See FEB 127 for more details.

The following problems/anomalies were seen during the installation of 8.2 on systems in Tech Support. Some are explained in more detail in the 8.2 Software Anomalies or Note to User for Valid's 8.2 Release documents.

1. 8.0 / 8.2 Incompatibility
Because of a change made to EFS in the 8.2 release, you can run into problems accessing application data files across the network from a non-8.2 system. This can be avoided by updating the server system before any client systems.

2. 8.2 / DECNET 1.3 Incompatibility
Because DECNET requires a modified kernel, and the 8.2 kernel has not yet been modified for DECNET, 8.2 cannot be installed at DECNET Beta sites.

3. Space limitation on Priam drives
The vtroff software package is too large for a Priam disk root partition. Before installing the vtroff package, do the following:
mkdir /u0/vfont
ln -s /u0/vfont /usr/vfont

4. New location for spool directories
The file /etc/printcap will be incorrect if restored onto a system which has been reconfigured for root on an Eagle. Edit the /etc/printcap and change all references of /u0/spool to /usr/spool.

5. Bogus error messages when using 1/4 inch tape
If the system being upgraded has 1/4 inch tape on a Rimfire controller, the following error message may randomly appear on your console: rt4: no tape. This error message can be ignored. After installation of the 8.2.1 UNIX update tape (and a system reboot), this error will cease.
6. Error in analog designer installation
The file /usr/vinstall/vinstallhist (history file) may get corrupted when running vinstall to install the analog designer package. Before installing the analog designer kit, do the following:
wc -l /usr/vinstall/vinstallhist
If the line count is less than 2700, proceed with the installation. If it exceeds 2700, call Tech. Support for assistance before you install the package.

7. Running mkfs from DII
If you are making file systems by using mkfs in DII, be sure to use DECIMAL numbers when specifying the partition numbers.

8. Installing libraries with vinstall
Libraries can be installed in directories other than /u0/lib by creating symbolic links in /u0/lib to the actual location of the library.
For example, suppose you want the lsttl library to be in /u6/lsttl. Before running vinstall, do the following:
cd /u6
mkdir lsttl
ln -s /u6/lsttl lsttl
Then install the library from the vinstall tape.

9. vinstall bug
The file /u0/lib/master.lib does not get updated automatically by the library format program in vinstall. You can either edit this file after installing libraries, or save a copy before starting the install.

10. vinstall bug
ALL file systems in /etc/fstab must be mounted before running vinstall.
Failure to do this will cause vinstall to quit with the following error message:
vinstall: fatal error in "df | awk '$1== "filesystem" {print "free", $6,$4}" on line 3: syntax error
vinstall quit because of errors.

11. Missing applications files in root
When installing 8.2 on a NEW root partition, the root files needed by some applications (e.g., /bin/ged) will not be present. All applications software must be installed using vinstall when 8.2 is installed on a new root partition.

12. Strange behavior of 82inst
When UNIX is installed by /etc/install/82inst, the job is done by vinstall, running under 82inst. After reading the files from tape, vinstall asks what to do with each of the user-modified files. One of the choices available is, "quit to examine files". When this option is taken, vinstall quits, but 82inst does not.
82inst should be allowed to run to completion. After the system reboots, examine the files in /tmp to determine which ones need to be kept, then run vinstall -v to complete the vinstall procedure.
13. B300 Printer strapping change
Due to changes in the serial board drivers, the switches on the interface board on the Dataproducts B300 printer must be changed. On the B300 interface board (the one closest to the rear of the printer,) switch 3 must be set with all bits off except 1, 5 and 6. (This is the same setting as was used with 7.25, but different from 8.0.)

14. 82inst bug when creating /net
If there are any files in the root directory that contain the string "net", then 82inst will think that the /net node does not exist, and will try to create it, even if /net DOES exist. 82inst will crash with the message, "mknod: file exists".
If this happens, remove /net and restart 82inst. 82inst will continue at the point where it failed.
CURRENT RELEASED SOFTWARE AS OF 02/25/87
FOR THE S320 CONFIGURATION
8.2 RELEASE ONLY

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Dear Mr. Ramsden:

Here it is, the infamous 'hps' HP sorter. A must-have program for owners of multi-color HP plotters who do not wish to wait ridiculous amounts of time and watch their expensive pen-change mechanisms mercilessly destroyed by a powerful yet simple-minded filter like 'hpf'. This program, believe it or not, was conceived, written, and debugged while waiting for just one drawing to plot on an HP7475 fed by 'hpf' alone.

Incredible isn't it?

Like a mail sorter looking at zip codes, 'hps' looks for pen-change commands and diverts the output to the appropriate pen file. When the last command is processed the files are sent to the plotter to produce a crisp, clear, multi-colored plot as quickly and as efficiently as current technology will allow. In addition to the 'hps' executable we have sent (at no charge) the complete source code to 'hps' and a sample printcap entry.

What a value!!

The following instructions are provided to make the installation of 'hps' as quick and easy as possible.

1. Load unrooted tar format tape and tar into contents into a location of your choice.

2. Copy the file hps to /usr/lib/hps.

3. Make a backup of your current printcap file. Call it something like printcap.bak or printcap.sav or maybe printcap.pre-hps or my favorite, printcap.old.

4. Make the HP entry in your printcap file look like the one provided (free of charge) with 'hps'. You'll probably only have to add the "if=/usr/lib/hps" line. Don't forget the backslash.

5. Kill and restart /usr/lib/lpd. (Hopefully you've been root all of this time—if not, you should have been.)

6. Login as yourself and edit your favorite multi-color plot. Set HP (whatever), set local and hardcopy.

Plotting should begin virtually instantaneously, provided you followed the instructions. You'll notice almost immediately that the plotter sounds quieter, more relaxed as it plots methodically along, free of those annoying pen changes. Only one change per color plotted is all that's required. What a savings in time and wear-and-tear!!

This package will have paid for itself by the time the plot is finished. I guarantee it ... In Writing.

If you encounter any problems using this utility (impossible)—It's just too bad. We're very sorry but we DO NOT UNDER ANY CIRCUMSTANCES PROVIDE ANY SUPPORT FOR THIS PRODUCT. It doesn't need it. Yes, it's that solid... We guarantee it ... In Writing.