



## Interoffice Memorandum

**To:** All Field Engineers

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

**From:** Mike Ramsden & Jim Thompson

**Subject:** 8.2 UPDA TE information and installation "gotchas"

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### 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 `lstl` library to be in `/u6/lib`. Before running `vinstall`, do the following:

```
cd /u6
mkdir lib (ignore this step if you already have /u6/lib)
cd /u6/lib
mkdir lstl
cd /u0/lib
ln -s /u6/lib/lstl lstl
```

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

PART NO.	NAME	RELEASE NUMBER	TAPE RELEASE	TAPE NAME	COMMENTS
	UNIX	4.2bsd	8.2	UNIX	
	DII	8.2	8.2	DII	
	UNIX FIX	8.2.1	8.2.1	UNIX INSTALL	old cat
	GED	8.0tfinal	8.2	TAPE 1	
	HPF	8.2	8.2	TAPE 1	
	FILECOPY	8.1a	8.2	TAPE 1	
	VALIDCOMPILER	1.2m	8.2	TAPE 1	
	VALIDLINKER	1.1.7	8.2	TAPE 1	
	PACKAGER	7.29a	8.2	TAPE 1	
	DIAL	8.0D	8.2	TAPE 2	
	PASCAL	2.5	8.2	TAPE 2	
	FORTTRAN	2.5	8.2	TAPE 2	
VT425	PLOTTALK	8.1	8.2	TAPE 2	
	PLOTTIME	8.0F	8.2	TAPE 2	
	RSCS	8.2	8.2	TAPE 3	/etc/install install scri
	VTROFF	8.2	8.2	TAPE 3	
	ONLINE-DOC	8.2	8.2	TAPE 3	
	STDINT	8.0D	8.2	TAPE 4	standard int
VT421	FLAT	1.8	8.2	TAPE 4	schematic fl.
VT412	VALIDTIME	1.04	8.2	TAPE 4	
VT411	VALIDSIM	2.16	8.2	TAPE 4	
	SPICE	26.6	8.2	TAPE 4	/etc/install install scri
AD431	ANALOG DESIGNER	1.1C	8.2	TAPE 4	/etc/install designer=ins
	ANALOG LIB	1.0A	8.2	TAPE 4	

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.