

North American Response Centers

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HPTREND:

An Installation and Problem Solving Guide

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HPTREND: An Installation and Problem Solving Guide

INTRODUCTION

HPTREND is an annual subscription service that helps HP 3000 System Managers to manage overall system resources. The product combines a data collection program with a reporting service to provide the necessary information to perform resource planning and load balancing. This information will help you to understand what you can do to increase the productivity of your HP 3000 and its users. HPTREND should not be confused with PREDICTIVE or HPSNAPSHOT. PREDICTIVE analyzes logfiles for upcoming hardware problems. It is a proactive approach to scheduling down time to repair hardware problems, instead of having down time when the hardware breaks. HPSNAPSHOT is a system performance consulting service to help fine tune your system. In contrast, HPTREND is used to report on a system's load over longer periods of time.

A number of calls received by the Response Center involve installing and trouble shooting HPTREND. This note is intended to answer your questions about the installation process. The *Question & Answer* section should be helpful in determining what to do when encountering some of the common errors we've seen at the Response Center.

INSTALLING HPTREND

The following will step you through the installation of HPTREND. It will highlight some of the mistakes most commonly made, and try to clear up any confusion you may have about the installation process.

Step 1. Restore HPTREND Files

After familiarizing yourself with the *HPTREND User's Guide* (Part No. 35136-90001) and with the *Software Installation Manual* that accompanied your latest MIT update tape, restore the files from the Subsys tape in the HP35136A group of the TELESUP account. These files *must* reside in that group on your system. Note that they may not be in that group and account on the Subsys tape. Use the ;LOCAL option of :RESTORE to place them in the TELESUP account and the HP35136A group.

Step 2. Run CUSTINFO and Enter System Information and Transmission Dates

Once you have restored the files, run the CUSTINFO program to enter information about your system. When you enter the phone number for the RC DIALUP, be sure to enter the "9K" if you have a PBX system. If you enter the "9K" before the phone number and you don't have a PBX then the transfer program will not work properly and the autodial software will not be able to dial out. Also, be sure to correctly enter your system's serial number and modem's logical device (ldev) number. The other information requested by CUSTINFO is used for generating and sending the reports. If you know your transmission dates, enter them now; otherwise, exit CUSTINFO. You can go back and enter the dates at a later time. When entering the transmission date, CUSTINFO will ask you for the time of day to transmit. You may enter whatever time is convenient for you. HPTREND will try to transmit the data at the time you enter for that date.

Step 3. Enable MPE Logging Events

To collect the needed information for HPTREND, use SYSDUMP to enable the following logging events:

Type 1	Logging Enabled
Type 2	Job Initiation
Type 3	Job Termination
Type 5	File Close
Type 6	System Shutdown
Type 8	Spooling

You must enable all six of these logging events in order for HPTREND to generate the reports with the correct graphs. You may notice that when the Type 5 (File Close) event is turned on, the logfiles will fill up quickly. You may want to increase the size of the system logfiles. After the TRLOGDCP program has analyzed the logfiles, you may want to archive them to tape and purge them from disc. Note that other utilities, such as PREDICTIVE, also analyze these files. Before you archive or purge them, make sure that *all* utilities that look at the log files have run. The TRLOGDCP program runs at midnight each night, unless you have set the parameter to make it run at a different time.

Step 4. Configure the Data Communication Port and Set the Options on the Modem

Before configuring the data communication port or setting any options on the modem, you need to select the modem configuration you are going to use. There is a flowchart in Appendix A of the *HPTREND User's Guide* titled "Selecting a Modem Configuration". This will help you select the configuration type that best fits your needs. Following is additional information to help you make that selection:

- If you do not have a Support Link I, Support Link II, or a HP37212A, then you should use modem configuration type 1, which is manual dial.
- Modem configuration type 3 is autodial for only Series 64's, 68's, and 70's going through the Remote Diagnostic Interface.
- Modem configuration type 2 is for the Support Link I, Support Link II and HP37212A autodial directly to an ATP/ADCC (not through the Remote Diagnostic Interface).
- If you choose one of the autodial configurations, you should read the "Security Considerations" section in Appendix A of the *HPTREND User's Guide* and decide if the security considerations are appropriate for your system. If not, you should use modem configuration Type 1.

After you have decided what modem configuration to use, set up your data communication port as indicated in the *HPTREND User's Guide* for that modem configuration and set the options in your modem. Note that the data communication port on modem configuration type 3 has a subtype of 0. With your modem set up as modem configuration type 3, it will not work properly for HPTREND unless the subtype is 0. Also ensure that you are using the 30062B cable. This is the cable that comes with the Support Link I and Support Link II modems. When connecting the cable, make sure that the end that says "Data Set" is connected to the modem, and the end that says "Computer" is connected to the port. The cable is not symmetrical.

Step 5. Test the Data Communication Connection Between Your Site and the Response Center

As soon as you install HPTREND and several days before your initial transmission date, test your configuration and the connection between your system and the Response Center. To do this, stream the job HPTDCTST. If you receive an error, refer to the Question & Answer Section at the end of this Application Note or look in the Trouble Shooting Section of the *HPTREND User's Guide*.

Step 6. Stream JHPTREND

Now that the data communication connection is working, stream the JHPTREND job. Actually, you may stream this job even if the HPTDCTST program gave you an error. The data communication connection needs to be working only by the time that you are ready to transmit data to the Response Center. Note: if you are on T-Delta-4, U-Mit or UA-Mit, you need to abort the JHPTREND job stream *before* doing a backup and restream the job *after* the backup has finished. This is because the HPTRENDL file is not closed as long as the JHPTREND job is running. If you don't abort the job the HPTRENDL file will not get backed up. If the file is not backed up, you could lose the data that was collected for this period, if you reload your system. Otherwise, this job should run at all times. If you are on T-Delta-5, T-Delta-6, UB-Mit, UB-Delta-1 or later, you can leave the JHPTREND job running during the backup since, with these versions, the HPTRENDL file is closed.

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Questions and Answers

Following are some common questions and answers about HPTREND. Some are reprinted from past *Response Center Questions and Answers*; some are new.

Q. Does the modem need to be set up differently for Predictive, than it does for HPTREND?

A. No. HPTREND and PREDICTIVE use the same software to dial out, so there should be no problem with PREDICTIVE when using a modem and port that have been set up for HPTREND. There is, however, a difference between the methods of dialing out for these two products. HPTREND runs continuously in the background, then prompts the user when it is time to send the data to the Response Center. PREDICTIVE is initiated by the user and will analyze the logfiles when the user dictates. It will then send data only if it's threshold for an error is exceeded.

Q. Who should I contact if I need to get a new set of transmission dates, or if I receive the message that I have missed my window for transmission?

A. Contact the Response Center. In the past, you may have been directed to call your local office, but the Response Center now does scheduling for HPTREND transmissions.

Q. When should the JHPTREND job run?

A. The JHPTREND job stream should be started after all of the required MPE logging events have been enabled and the information has been entered in CUSTINFO. If this job is not run, the needed data from the Measurement Interface will not be collected for that period. Refer to the previous section, "Stream JHPTREND", for recommendations of when to abort this job. As a rule, this jobstream should be running all of the time.

Q. I have received the message "Speed Sensing Failed on Remote System" when trying to transmit data to the Response Center. What should I check?

A. Try calling the RC DIALUP number with a handset and see if you can get carrier. If not, wait for a period of time and try again. This condition could be due to phone problems at the Response Center. If you get carrier, try to transmit again; if it fails, try the trouble shooting suggestions in the next *Question and Answer*.

Q. What things can I check if I receive any of the following errors?

Remote Modem Busy/Failed To Answer/No Carrier

Remote Modem Failed To Send Carrier

Unable to Set Up Modem Port Properly

Fread Timeout Occurred Talking To Modem

A. If you receive one of these errors you should first verify that the data communication port and the modem options are correct according to Appendix A of the *HPTREND User's Guide*. If this checks out, the next thing to check is the RC DIALUP. Try the number with the "9K" before it, or try taking the "K" out. You should only use the "9K" if the phone line is going through a PBX. Verify that the number is correct by connecting a handset and dialing out on the telephone line (labeled Telco or Telline) that is connected to the back of the modem. Check the cable and make sure that it is a 30062B, and connected in the right direction. If using Configuration Type 2, try another port if you have one configured with a subtype of "1" and a baud rate of 1200. If you suspect that the port is hung, try resetting the port with TERMDISM. If all of the above check out, but the error still occurs, call the Response Center for assistance.

Q. I have received the message that my serial number was not authorized to use HPTREND. What can be done to correct this?

A. Verify that the serial number entered in CUSTINFO is correct. If it is, call the Response Center; the serial number we have recorded in our database is different and the two must be the same in order for you to transmit.

Q. How can I be sure that the TRLOGDCP program is analyzing my log files correctly?

A. Abort JHPTREND then check the job listing for errors and notice which files have been analyzed. Immediately restream the JHPTREND job. Now run the TRLOGDCP program interactively. It will tell you what files it analyzed or report any errors it encountered.

Q. I have received the message "HPTRENDB File Full FSERR 0" what causes this and what can I do to correct it?

A. There is a known problem with some of the earlier versions of HPTREND where the HPTRENDB file is built with a limit of 500. This causes a problem on some systems since the HPTRENDB file is used as a type of scratch file for the TRLOGDCP program. To correct this problem, purge HPTRENDB and build it again letting the limit default to 1023 records.

:PURGE HPTRENDB

:BUILD HPTRENDB;REC=8,240,F,BINARY

This problem is fixed in the version of HPTREND that comes with UB-Mit (G. A.2. B0) and later.

Q. Why do I get FSERR 90 on the HPTSCHDF file during my backup?

A. HPTREND checks the HPTSCHDF file approximately every ten minutes to see if it is time to transmit the data to the Response Center. When you do your backups the store bit is set for this file. When HPTREND tries to open the file it receives the error message:

FSERR 90 EXCLUSIVE VIOLATION; FILE BEING ACCESSED

This error can be ignored.

Q. Why do I get FSERR 91 on the HPTRENDL file during my backup?

A. If you are on an operating system where JHPTREND can be left running during a backup, you may encounter this error. The HPTRENDL file is updated once every hour. HPTREND tries to open this file and is unable to if the store bit is set due to the system backup. This error can be ignored.

Q. My transmission failed and now I have a date in my schedule file that shows as "IN TRANSIT". I can't delete it. How do I fix my schedule file?

A. There are two ways to go about this. If the date that is in transit is the first one, you may :RUN the HPTSCHUP program and it will automatically remove the first record of the schedule file. If you would like to delete all dates, or if you suspect that the schedule file is corrupt, purge the HPTSCHDF file and then :RUN CUSTINFO and re-enter the transmission dates.

Q. How can I determine what Ldev number my modem is connected to in order to enter the correct number in CUSTINFO?

A. If you are unable to determine the ldev number by looking at the configuration or by tracing the cable, connect a terminal to the port where your modem is connected, logon and do a :SHOWME command. This will tell you what ldev you are connected to. If you have a 6X or 7X machine follow the jumper cable from the lower port in the Remote Diagnostic Interface to the ATP port. That will be the ATP port to connect the terminal to the logon and return the :SHOWME.

Q. The REDUCE program failed with an FSERR 0 on the HPTREND1 or HPTREND3 file. What caused this and how do I finish reducing my data so I can send it?

A. During the reduce process, the HPTREND data files HPTRENDL, HPTRENDA, and HPTREND3 are analyzed and information is put in the HPTREND1 through HPTREND9 files. HPTREND1 contains data that originated from the HPTRENDL file. Typically, HPTRENDL receives a Reset Date when the HPTREND data is sent. This doesn't happen if the HPTRENDL file is always open while the JHPTREND job stream is running. If there is no reset date in the file the REDUCE program will try to put all of the data from the HPTRENDL file in the HPTREND1 file, instead of just the information for the period being analyzed. This causes the file to fill up.

The HPTREND3 file is produced by the REDUCE program from the HPTREND3 file. It contains one record for each day. The HPTREND# log files will overflow if there are files which span more than a year on the system when TRLOGDCP runs. TRLOGDCP is run every night thru the JHPTREND jobstream. The following steps will correct both of the above errors:

WARNING

The following steps must be followed exactly.
Do not skip or omit any steps.

- 1) Logon as :HELLO MGR. TELESUP,HP35136A
- 2) Abort the JHPTREND job stream.
- 3) :RUN REDUCE,LIST

This will list the reset dates for the HPTRENDL, HPTRENDA, and HPTRENDL files. Look at the reset date for the HPTRENDA and HPTRENDL files. The reset dates should be the date that you last transmitted. If the HPTRENDL file's reset date is not NULL then you have a different problem and should disregard this solution. You will want the 3 files to have the same reset date. Write down the reset date for the HPTRENDL and HPTRENDA files.

- 4) :FCOPY FROM=HPTRENDA;TO=TA;NEW

This is an important step and should not be skipped.

Resetting the date changes this file and you will need this file in the current form.

- 5) Calculate the number of days (from today's date) back to the reset date of the HPTRENDA and HPTRENDL files.
- 6) :RUN REDUCE,RESET;PARM=--(number of days since last reset)

This program will then display the date to which the files were reset. it is not the correct date, recalculate the number of days since the last reset and run the above program again with the newly calculated number. This program can be run repetitively until the correct date is set in the files.

- 7) :RUN REDUCE,LIST again to check to see if all three files have the same reset date. If not, repeat Step 6, otherwise go to Step 8.
- 8) :PURGE HPTRENDA
- 9) :RENAME TA,HPTRENDA
- 10) :STREAM JHPTREND

