

HP 4980 Series Network Advisor Software Revision A.06.XX Known Software Limitations and Problems

Introduction

This operating note contains information about certain conditions that may appear when you are using the new A.06.01 (or higher numbered version) software. It is divided into the following sections:

- Note on the 386 network advisor
- FDDI Ring Manager
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5962-2289

April 1994
Printed in U.S.A.

Note on the 386 network advisor

The series 386 network advisor is not supported with this release. You must upgrade to the 486 network advisor. Contact your Hewlett-Packard sales representative.

FDDI Ring Manager

- The FDDI Ring Manager uses a filter labeled "SMT Frames (All)". Do not change or delete this filter. The Ring Manager can not function correctly if this filter is modified. There is a backup copy of this filter in the file C:\analyzer\bundles\fddi\smt_all.fdb. If the SMT filter becomes damaged, this backup file should be copied to
C:\analyzer\system\gp\filters\catgorys\fddi\smt_all.fdb
- The FDDI Ring Manager generates and processes Station Information Frames (SIFs) to build the Ring Maps and Station Information displays. The Ring Manager cannot function correctly if the Traffic Generator is used to generate SIFs while the Ring Manager is running.
- Some Nodelist subwindows do not have a Help menu button. If you press F1 in those windows, a red box is displayed. Press the Continue button on the red box to close it. You can continue using the network advisor without rebooting.
- When the network advisor is attached to the ring as a Single Attach Station, be sure to use the port A/S/M. If the network advisor is attached using port B, you may see the message "Improper SIFs sent by network advisor". To clear this condition, attach the cable to port A/S/M, then open the SETUP window, then the Interface Parameters subwindow. Change the Connection Mode to "Dual Attach Station". Save the SETUP window. Then go back to the Interface Parameters and change the Connection Mode to "Single Attach Station". Save the SETUP window.
- If you have a small test network consisting of just two nodes connected by one cable so that the "ring" is wrapped and twisted, the ring map may be inconsistent.

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- To help us continue to improve our product, if the network advisor ever displays a red box containing a *fatal error* message, please write down all the information in the red box, and a description of what you were doing, then call the Help line at (719) 531-4567 to report the information.

Write down all the information in the red box.



Write down a description of what you were doing when the error occurred.

Write down the date and time of the error.

Traffic Generator

- The 802.5 traffic generator does not send illegal frames. This includes Source Routed frames with illegal source routing length field values (e.g. 0) and MAC frames with a Source Class that is Ring Station (18 of the 25 defined MAC frames have such a Source Class). The traffic generator allows definition of these frames, but after starting, it stops with no error information provided.
- When a frame is copied from the capture buffer, the first 78 bytes of the frame are actually copied, the FCS is recalculated and the correct frame length is retained. The bytes after the first 78 are padded with the pad value.
- If the 802.3 traffic generator is manually stopped and the node card is currently transmitting a frame, this frame will be truncated and the resulting FCS will be bad.
- The network advisor traffic generator may stop if you try to add a high traffic level (>60%) to an 802.3 network which is already carrying a high traffic level (>40%). In other words, if the total traffic on the network advisor exceeds 100%, the traffic generator may stop operating.

- Caution should be used when generating traffic on an FDDI network. In addition to generating correct FDDI frames for network troubleshooting, the traffic generator includes device testing capabilities. Some of the device testing capabilities should not be used on a network without a thorough understanding of FDDI specifications. Potential impacts on an FDDI network are listed below:

Disabling "Release Token" will cause the network to claim.

Disabling "Wait for Token" may cause the network to claim. Also, traffic rates reported in this mode may be inaccurate and maximum network utilization is around 96 percent.

Forcing a line state may cause stations on the network to react in an unwanted manner.

Using "raw symbol mode" to generate invalid frames and frames with violations may cause stations on the network to react in an unwanted manner.

Transmitting at high frame rates may overload stations, bridges and routers on the network.

Transmitting frames with a source address which does not exist on the network may fill the network with no-owner frames.

Transmitting frames with a destination address which does not exist on the network may overload bridges which must forward the frames.

- The safe minimum frame length for frames transmitted by the FDDI Traffic Generator is five bytes unless there is a frame filter activated to filter out the generated traffic. In that case, there is no lower limit on the size of the frame.
- When the FDDI network advisor is in "repeater mode" it does not have an address on the ring. Therefore, the frames it transmits will not be removed from the ring unless configured with the source address of another station on the ring. If the frames are not removed, they will be counted many times by the traffic generator. This makes it appear that more than the requested number of frames were transmitted. On the other hand, if the frames are removed by a station other than the network advisor, the number of frames received may be less than the number transmitted.

- While summary statistics is running, if the FDDI traffic generator is opened using the Config/Measurement menu from the Measurements window, then immediately closed, a red warning box appears stating that the instrument cannot communicate with the hardware module. However, no harm is done to the network advisor. You may press "continue" and ignore this warning.

Stimulus/Response Tests - Token-Ring

- The Token-Ring Request Station ID incorrectly marks multiple responses as duplicates when the MAC address is selected to be a functional address. You can disregard the duplicate markings when this happens.
- If the T-R Lobe Test on 4 megabit Token-Ring detects a wire fault, you cannot use the Stimulus/Response tests until you reboot the network advisor.

Decodes

- Do not use the Decode menu: Actions/Save/Decode Result File if the capture buffer is configured at 4 megabytes or larger. When saved, a Decode Result File can rapidly become too large to fit on your disk and cause the Network Advisor to crash. You can use the menu: Actions/Save/Advisor Data File to save the capture buffer. The Advisor Data File can then be loaded into the capture buffer at a later time and any decode can be run on the frames.
- The SNMP Data Decode does not alternate colors for the raw hexadecimal data as other data decodes do.
- In the AppleTalk ARP Detailed Decode, a hardware value of 2 is decoded as Token-Ring, while in the AppleTalk ARP section of the AppleTalk Stack Detailed Decode, it's decoded as Experimental Ethernet. Token-Ring is the correct value.
- When decode timestamps are set to Relative mode, timestamps for frames appearing before the referenced frame do not have a minus sign, even though they are negative.
- Phase I AppleTalk RTMP frames are decoded as Phase 2 RTMP frames, and are therefore occasionally marked as errors. The message "Error: Range start cannot be larger than range end" may appear in red text in the Description field.
- The ARP and AARP decodes do not do node list name substitutions for the SENDER and TARGET HW ADDRESS fields. These fields are always displayed as hexadecimal values.
- The Ethernet/802.3 decode translates the ethernet type value 80-35 to ARP. It should be translated to RARP or Reverse ARP.

- Some bridges may not encapsulate Phase 1 Appletalk frames correctly. When a Phase 1 Appletalk frame that has passed through a bridge is decoded by the network advisor on an FDDI network, you may see indeterminate results. Use the Data Display to see the actual hexadecimal data.
- When the data source for a decode is "decode result file", changing the format of node names will cause a red error box. As a work-around, use the "advisor data file" when saving decode results.
- The 3COM NBP decode does not run on the FDDI network advisor.
- All ICMP-IP reject frames are marked as errors.

Statistics

- Removing a disk while you are storing statistics to it causes the network advisor to exit to DOS.
- On Token-Ring networks, the Active Station List, Calculate Ring Length, and Summary Statistics (Trends & Dashboard) display incorrect values for the station count if the Neighbor Notification Process on the Token-Ring is aborted. Purges, Beacons, and Claim Tokens all cause the Neighbor Notification process to abort. The result is these measurements display a lower value for station count than what is actually occurring on the network. If the results are not what you expected, you may want to run these tests again.
- If the mouse cursor is left on top of a graph while that graph is being updated, a small gap may appear in the graph around the cursor location. The gap will disappear the next time the graph scrolls or rescales.
- If a config window is closed at the exact time that a block of stats data is written to disk (this occurs for about a half second every twenty seconds), it is possible an Instrument error, "CacheFile failed to write CacheBlock" will occur. This is a non-fatal error but may cause the last twenty seconds of statistics data to be lost.
- If a statistics gauge read out reaches 99,999,999, it does not clear to zero. To clear the gauge, stop, then restart the statistics measurement.
- If a statistics data file is loaded into the network advisor while the statistics display is in Graphical or Tabular format, information in the Summary display format is incorrect. The work-around is to load statistics data only in the Summary display format. In this case, information is correct for all formats.
- When a statistics data file is loaded into the FDDI network advisor, an erroneous warning is posted to the Event Log. The warning is "Warning #4883: Invalid Statistics ADU received. Possible software version problem." Please ignore this warning. The statistics file is valid and there is no software version problem.
- Do not run the Stats Demo measurement concurrently with other Statistics measurements. The Demo is meant to be run alone. Running it simultaneously with other statistical measurements can cause a system error.

Commentator

- If the network advisor Token-Ring commentator identifies a Token-Ring "catastrophic event", the commentator measurement must be reset before this event can be identified a second time. To reset the measurement, close the window, then open it and restart the commentator measurement.

Fault Finder

- If the Fault Finder configuration is set up with the floppy disk drive as the path for the baseline file, then the disk is removed, and the network advisor power is recycled, the network advisor will attempt to load, but then display a red error box indicating the drive or printer is not ready. To fix this, put the floppy in drive A and continue.
- Key nodes are not *automatically* PING'ed on the first cycle of Fault Finder. Select the "Node List Info is Valid" option in the Fault Finder configuration to cause Fault Finder to automatically PING key nodes on each cycle, starting with the second cycle.

Node/Station Discovery

- If a NETBIOS device with a full-length name (16 characters) is discovered and merged into the Advisor Node List, the last character of the name is truncated. Network advisor NETBIOS Node Names are limited to 15 characters.
- If an IPX router is discovered by the Node/Station Discovery measurement, the Type/ID field of the first IPX address is shown incorrectly as the Type/ID field of the router itself. For example, the router could be labeled as "Printer". Any node with more than three or four network addresses is probably a router.

Miscellaneous

- The network advisor may lock up if you try to print a screen while accessing the hard disk. The cursor will remain as an hourglass or print cursor and the keyboard is ignored. You need to recycle the power to reset the network advisor for proper operation.
- In some instances the mouse cursor will remain in the shape of an hourglass even after control has been returned to the user. When this occurs, the hourglass will remain until the mouse is moved.
- Frame filters created in one network advisor interface module cannot be used in a different interface module. For example, a filter created in the Ethernet module cannot be used with a Token-Ring or FDDI interface module.
- The FDDI Event Log does not log an event when a rejected connection state is cleared. However, the FDDI port status icon shows that the connection state has changed.
- The network advisor software might generate a "general failure" message when the software is first booted. This can only happen when an external monitor is attached and the network advisor software configuration is set to "internal display". The problem can be avoided by setting the software configuration to "external display" before attaching the external display and executing the network advisor software.



