Compaq Analyze

Release Notes

Compaq Analyze is a rules-based hardware fault management diagnostic tool that provides error event analysis and translation. The multi-event correlation analysis feature of Compaq Analyze provides the capability to analyze events stored in the system’s event log file and the capability to analyze events from other sources.

The Compaq Analyze Release Notes provide general release information and describe the limitations of Compaq Analyze.

Rev. 9/29/00–A

Operating System: Microsoft Windows NT 4.0 and Windows 2000
Compaq Tru64 UNIX versions 4.0E to 5.1
Compaq OpenVMS Alpha versions 7.1-2, 7.2, 7.2-1, and 7.2-1H1

Software Version: Compaq Analyze 3.1
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The Compaq Analyze Release Notes provide general information about Compaq Analyze.

Overview

The Compaq Analyze Release Notes provide general information about Compaq Analyze including the functionality and known limitations of the software.

Intended Audience

The Compaq Analyze Release Notes are intended for anyone who will use the Compaq Analyze software. The audience consists of the following:

- Mission Critical Engineers
- Compaq Customer Support Center Phone Specialists
- Compaq Customers
- Compaq Serviceability Engineers
- Compaq Product Division
- Authorized Service Providers

Documentation Conventions

The following conventions are used in this manual:

**User entries**

Information that should be entered exactly as it appears in the document is shown in bold.
Compaq Analyze is a member of the Web-Based Enterprise Service (WEBES) suite of products. For more information on the other WEBES applications, visit the Service Tools support web site at the following URL:

http://www.support.compaq.com/svctools/

Click the “WEBES” link for more information.

The following documents contain relevant information:

- *Compaq Analyze User Guide*
- *WEBES Install Guide*
- *WEBES Release Notes*
This chapter describes Compaq Analyze and the new features supported in this release. In addition, it describes the supported products.

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1.1 Description

Compaq Analyze is a fault analysis utility included with the Web-Based Service Enterprise (WEBES) service tools. It is designed to provide analysis for single error/fault events, as well as multiple event and complex analysis. Compaq Analyze provides system analysis that uses other error/fault data sources in addition to the traditional binary event log.

Compaq Analyze provides background automatic analysis by monitoring the active binary event log and processing events as they occur. The events in the binary event log file are checked against the analysis rules. If one or more of the events in the binary event log file meets the conditions specified in the rules, the analysis engine collects the error data and creates a problem report containing a description of the problem and any corrective actions required. Once the problem report is created, it is distributed in accordance with the customer’s notification preferences.

Each WEBES-based service tool adds functionality to the Director, a process (or set of processes) that executes continuously. Compaq Analyze provides the Director with the capability to capture and interpret hardware events. The analysis of events can be performed automatically or when requested by an outside process.

Compaq Analyze supports command line and web browser interfaces that enable you to interact with the Director. Although only one Director can run on a machine at any time, many web browser and CLI connections can be active simultaneously.

1.2 New Features

The following list describes the new features contained in this version of Compaq Analyze. All the features are available on all supported operating systems, unless otherwise specified.

- CLI – multiple syntaxes supported
- CLI – the Director does not need to be running to perform manual analysis or translation, generate a summary report, or create a new binary log file
- Web Interface – enhanced navigation
- Web Interface – user settings supported
- Extended support for Windows events - BTT
- Additional product support (see Section 1.4)

1.3 Functionality

Compaq Analyze presents information through the following user interfaces:

- Command Line Interface (CLI)
- Web Interface
Both interfaces support the following functions:

- Automatic translation and analysis
- Manual translation and analysis
- Scavenge pending events
- Automatically send notification to service provider

Refer to the *Compaq Analyze User Guide* for more information about using the Compaq Analyze interfaces and functions.

### 1.4 Products

The following list shows the products Compaq Analyze supports.

- Compaq AlphaServer DS10 Analysis and Bit-To-Text Updates (Tru64 UNIX and OpenVMS, refer to the AlphaServer Platforms Support section for support information)
- Compaq AlphaServer DS10L Analysis and Bit-To-Text Updates (Tru64 UNIX and OpenVMS, refer to the AlphaServer Platforms Support section for support information)
- Compaq AlphaServer DS20e (CPU) Analysis and Bit-To-Text Updates (Tru64 UNIX and OpenVMS, refer to the AlphaServer Platforms Support section for support information)
- Compaq AlphaServer DS20 Analysis and Bit-To-Text Updates (Tru64 UNIX and OpenVMS, refer to the AlphaServer Platforms Support section for support information)
- Compaq AlphaServer ES40 Analysis and Bit-To-Text Updates (Tru64 UNIX and OpenVMS, refer to the AlphaServer Platforms Support section for support information)
- Compaq AlphaServer GS80/GS160/GS320 Analysis (Tru64 UNIX and OpenVMS, refer to the AlphaServer Platforms Support section for support information)
- Memory Channel II (Compaq Tru64 UNIX and OpenVMS)
- I/O – Analysis
  - Disk Storage based on SCSI specification (Compaq Tru64 UNIX, OpenVMS, and Windows)
  - TZ88/89 (OpenVMS)
  - EZ4X/EZ6X (Compaq Tru64 UNIX and OpenVMS)
  - EZ5X/EZ7X (Compaq Tru64 UNIX and OpenVMS)
  - HSG60/HSG80/HSZXX (Compaq Tru64 UNIX and OpenVMS)
  - HSG60/HSG80 (Windows)
- I/O – BTT
  - RA3000
  - KZPSC/KZPAC/KZPBA/KZPCM/KZPSA/KZPCC/KSPEA
  - KGPSA-CA (Compaq Tru64 UNIX and OpenVMS)
  - CCMAB-AA
  - CIPCA-BA
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AlphaServer Platforms Support

Please refer to the operating system’s SPD for information about the platforms supported by the various versions of the operating systems.

If you need to update your platform’s firmware, refer to either of the following locations for the latest version:

- The Alpha Systems Firmware CD
- The Alpha Systems Firmware – Firmware Updates web page, located at the following URL:

1.5 Translation and Analysis Capabilities

The following sections describe the translation capabilities of Compaq Analyze and the message types supported.

1.5.1 Binary Event Log Decomposition

Compaq Analyze formats and displays binary event log entries for the following:

- Compaq AlphaServer DS10
- Compaq AlphaServer DS10L
- Compaq AlphaServer DS20
- Compaq AlphaServer DS20e
- Compaq AlphaServer ES40
- Compaq AlphaServer GS80
- Compaq AlphaServer GS160
- Compaq AlphaServer GS320
- Memory Channel II
- Common Access Method (CAM) error log entries
- Logged message entries

1.5.2 Machine Check Error Log Entry Types

The binary event log entries processed by Compaq Analyze are:

Machine Check Entries

- CPU Correctable Error (630)
- CPU Uncorrectable Error (670)
• System Correctable Error (620)
• System Uncorrectable Error (660)
• System Environmental (68x)
• Console Data Log (113)
• Correctable Error Throttling Notification (120)

I/O Error Log Entries

• CAM SCSI Entry Type (199)

Miscellaneous Entry Types

• Generic Information
• Startup Message
• Shutdown Message
• Panic Message
• Time Stamp
• Diagnostic Message
• Repair Message

1.5.3 GS Error Log Entry Types

All GS160 Uncorrectable Errors (660/670) for the following hardware entities:

• PCI
• PCA
• FE-minilink
• Hosecable
• NE-minilink
• IOP
• CPU
• Memory
• Global port

All GS160 System Faults reported by the following entities:

• PCA
• FE-minilink
• Hosecable
• NE-minilink
• IOP
• CPU
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- Memory
- Global port
- Hswitch
- Dtag
- Directory
- QSA
- QSD

GS160 correctable errors (620/630):

- Memory Correctable Read Errors (620)
- Added OS Indictment API support memory PFNs and DIMMs.
- Directory Correctable Read Errors (620)
- Uncorrelated correctable errors between GP GPL and HSwitch (620)
- Uncorrelated correctable errors between GP HSL and HSwitch (620)
- All Processor Correctable Errors (630)

GS160 System Events (68x/113):

- All PSM, PBM and HPM events
This chapter describes the general limitations for Compaq Analyze that apply to all operating systems.

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2.1 Interface Independent Limitations

The following limitations apply to all interfaces.

2.1.1 Serial Number Prevents Rules From Working

The system serial number on some GS80, GS160, and GS320 systems was not set correctly. The Compaq Analyze rules will only function if the serial number is set correctly.

Workaround

You can check and correct the serial number from the SRM console:

Check the serial number using the following command:

    show sys_serial_num

The serial number should match the actual system serial number given on the model/SN tag in the power cabinet.

If necessary, change the serial number with the following command:

    set sys_serial_num

You should enter the six-character serial number provided on the tag located in the power cabinet. The serial number begins with the letter G.

Note

If multiple systems were ordered, they may all use the same serial number. As a result, the Compaq Analyze rules will not work correctly because they require that each system have a unique serial number. If this is the case, when you set the serial number, append a −1, −2, or −3 to the serial number to uniquely identify each system.

2.1.2 Manual Analysis Command Errors

You may receive unexpected errors during manual analysis of events. When this occurs, simply retry the command in question.
2.1.3 Starting the Director Process Results in High CPU Usage

When the Director process is first started, it analyzes the entire binary event log. Performing this analysis takes time and may result in high CPU usage. However, once the Director process has completed processing the binary event log file, CPU usage is reduced significantly and new events are processed in real time. Thus, when you first start Compaq Analyze, you may notice some impact on your system’s performance.

The initial analysis occurs only once, four minutes after the Director has been started. Subsequent restarts of the Director should not result in significant CPU usage except for the normal startup tasks, which may take from 10 to 30 seconds.

2.1.4 Commands Time Out During Scavenge or Heavy Loads

Four minutes after the DESTA Director process starts, a scavenge operation processes the events from the native binary event log that have not already been processed. If there are numerous events to process, such as the first time the scavenge operation occurs, the DESTA Director process may be too busy scavenging to respond to other requests from the web interface or the CLI before their time-outs expire, thus, causing the request to fail.

Manual translation or analysis of large binary event logs also may cause the Director to become too busy to respond to other requests in a timely manner.

Resource loading and time-outs will be improved in a future release.

Workaround

Wait for the resource-intensive activity to complete and for the system to become idle again, then repeat the command or operation that failed.

2.1.5 Fragmented Disk Slows Processing

Processing binary event logs manually may be significantly slower because of interaction between virus detection software and a fragmented disk. In order to process binary event logs as quickly as possible, make sure that your disk has been defragmented recently.

2.1.6 Changing IP Address Causes Director to Stop Functioning

If WEBES is installed on a system without a fixed IP address, such as a network that assigns IP addresses using DHCP (Dynamic Host Configuration Protocol), and the IP address
changes, the Director will no longer function. If you know the IP address is changing, stop the
Director until the change is complete, then restart the Director. Be aware that stopping the
Director stops all the WEBES components.

2.1.7 Bad Translation or Analysis Due to No Knowledge Registered

On some systems, the WEBES installation may not register the default knowledge correctly.
This problem may affect the event translation knowledge or the analysis rule set knowledge, or
both.

If Compaq Analyze analysis does not produce the expected problem reports from a binary
event log, determine if there are any knowledge rule sets registered by entering the command:

```
calistrk
```

If there are no knowledge files registered, the following message is returned:

```
There are no knowledge files registered.
```

If no knowledge files are registered use the following procedure to register the default analysis
knowledge files:

1. Stop all WEBES processes.
2. Delete the `decorEvt*.*` files from the `ca/data` directory.
3. Restart the Director.
4. Re-register the default rule sets with the `ca regknw rdef` command.

If Compaq Analyze still does not produce the expected problem reports, view the translated
events from the binary event log using either the web interface or the `ca trans` command.

If the translated output resembles the following example, the event translation knowledge may
not be registered:

```
com.compaq.svctools.desta.services.decomposers.DecompNavException:
No frame found to continue processing this event.
0000: FE FF FF FF C0 00 00 00 bffy
0008: 50 04 00 00 02 00 00 00 P.......
0010: 01 00 04 00 EC 0D 00 00 .....l...
0018: 22 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
0020: 01 00 00 00 02 00 00 00 00 00 00 00 00 00 00 00 00 00 .......
...
```

If this is the case, repeat the procedure for registering the analysis knowledge and then enter
the following command at the command prompt:

```
desta bldknw
```

This process will re-register the event translation knowledge and the analysis rule set
knowledge.
2.1.8 False Value for FRU Callouts

For DS20e systems, Compaq Analyze displays a value of FALSE for the Field Replaceable Unit (FRU) part number, the FRU serial number, and the revision information in the FRU List for FRU callouts relating to the CPU module or the System Motherboard. Compaq Analyze reports the correct Device Type and Physical Location of the FRU. All other FRU lists for DS20e are not affected by this problem.

2.2 CLI Limitations

The following limitations apply to the command line interface:

2.2.1 Syntax Changes Affect All Users

Changing the default syntax affects all the users on the system. Thus, if another user changes the default syntax, it will affect your Compaq Analyze session. To ensure that your commands are interpreted correctly, it is recommended that you always include a syntax designator when you are using a command that supports multiple syntaxes.

2.3 Web Limitations

The following limitations apply to the web interface:

2.3.1 Director Communications Limitations

Different versions of the WEBES Director may not communicate correctly. As a result, if you are logged into a system and attempt to connect a node that is using a different version of WEBES, you may not get the expected analysis results. If you need to monitor multiple nodes using different versions of the Director, open a separate browser window for each Director version and connect to the nodes directly.

2.3.2 Problems Connecting to Remote Nodes

If you use the web interface to add a remote Windows node, you may not be able to use the Full View option on the remote machine. If the local host is running Windows, full view monitoring will fail unless the operating system is installed in the same place on both machines. If the local host is running UNIX or VMS, you will not be able to use the full view option for any added remote Windows node.
2.3 Web Limitations

Workaround

Rather than using the Add Node feature, add the remote machine’s Windows event log to the Other Logs area. To add the Windows event log to the Other Logs area, type the path and name of the event log in the Add File screen (by default the Windows’ event log is C:\WINNT\system32\config\AppEvent.EVT). Once the event log is added under the Other Logs area, you can perform manual analysis as normal.

2.3.3 Internet Explorer Limitations

If you are using Internet Explorer as your browser, the following limitations affect the web interface:

2.3.3.1 Java Virtual Machine Required

Compaq Analyze requires the Microsoft Java Virtual Machine (VM). If you are using Internet Explorer version 5.x and have not installed the VM on your machine, you may be asked to install it when you attempt to logon. You can install the Java VM by:

• Following the instructions when you attempt to logon to Compaq Analyze.
• Using your browser to access the following web site:

http://windowsupdate.microsoft.com

From the Windows Update page, select the “Product Updates” link and follow the instructions for installing the Java VM.

2.3.3.2 HTTP 1.1 Required

The “Use HTTP 1.1” option must be enabled for the web interface to function properly. To enable the option, select Internet Options from the Tools menu. From the Options window select the Advanced tab and make sure the check box next to “Use HTTP 1.1” is selected.

2.3.3.3 Partial URLs Not Allowed

When you access the web interface, you must preface the URL with http:// (for example, enter http://16.23.132.145:7902/ in the address line rather than 16.23.132.145:7902/). If you do not enter the full URL, Internet Explorer will stop responding and the system may hang.
2.3.3.4 Navigation Icons Updated Slowly

Internet Explorer does not update the icons in the navigation frame quickly. Thus, if automatic analysis results in a problem report or manual analysis completes, the icon changes will not be visible immediately.

2.3.4 Netscape Limitations

If you are using Netscape as your browser, the following limitation applies to the web interface:

2.3.4.1 Resizing Issues

With Netscape, once you logon to Compaq Analyze, you cannot resize the browser window. In addition, the browser window cannot be resized, even after you logoff Compaq Analyze.

To resize your browser window after using Compaq Analyze, open a new window and close the window where Compaq Analyze was running.

2.3.4.2 Excessive CPU Usage

If you are using Netscape 4.x with Compaq Analyze, you may notice excessive CPU usage. Some browser requests to Compaq Analyze, may result in Netscape using 100% of the local system’s CPU. This problem occurs if you are browsing with Netscape on the same system where Compaq Analyze is running. When Netscape is using all of the CPU, Compaq Analyze, which is a background process, does not respond in a reasonable amount of time. In most cases, this issue occurs in conjunction with requests such as adding files to Other Logs.

If Netscape is using all of the CPU, the browser will appear to wait for Compaq Analyze. Check your system’s CPU usage and determine if Netscape is consuming the majority of the processing time.

Workaround

Wait twenty to thirty seconds and click the Stop button in the browser’s toolbar. Any necessary updates are shown in the navigation tree, and you can continue to use Compaq Analyze normally. If necessary, you can refresh the display frame by right-clicking on it and selecting Reload Frame from the pop-up menu. Do not use the Reload button located in the Netscape toolbar.
2.3 Web Limitations

2.3.4.3 Overlapping Text in Navigation Tree

Netscape may not display the contents of the navigation tree correctly. The entries in the tree may not collapse properly and as a result entries may appear to be overlapping and blank lines appear in the tree. To fix the navigation tree, collapse and expand the parent entry of the entry that is displayed incorrectly.

2.3.5 Browser Toolbar Limitations

The buttons located in the Netscape and Internet Explorer toolbars may not function as expected when you are logged into the web interface. The following sections describe the issues associated with the browser buttons.

2.3.5.1 Back Button

Only use the Back button after viewing the details of a problem report, event, or configuration entry. Using the Back button after viewing the detailed output displays the analysis results tab for Problem Reports in the display frame. If you use the Back button at any other time, the results may be unpredictable. In general, it is best to use the navigation tree and Compaq Analyze toolbar to access the Compaq Analyze screens and features.

2.3.5.2 Refresh Button

Do not use the Refresh button at the top of your browser while using the Web Interface. The Refresh button terminates the active user’s Compaq Analyze session. In order to restart a Compaq Analyze session for the user name, you must manually log out the user name and then logon to Compaq Analyze again.

For more information on refreshing the display, refer to Section 2.3.8.

2.3.6 Link Color Inaccurate

Under normal operation, the color of hyper-text links changes after the link is visited. Compaq Analyze presents dynamic data that is frequently updated, however, the links used to access the information do not change. As a result of this presentation, the color of links may be erratic or incorrect. In most cases, the color of visited links will not change.

2.3.7 Group and Category Name Restrictions

Do not use punctuation in the group or category names that you add to the navigation tree. If you use punctuation characters, JavaScript errors may occur when the navigation tree reloads.
If you see JavaScript errors caused by a group name, you can dismiss the error message by clicking the OK button. To correct the problem, remove the offending name and replace it with a new name that does not use one of the restricted characters.

### 2.3.8 Refreshing the Display

The web interface is composed of three frames (the toolbar, the navigation frame, and the display frame). If, at any time, one of these frames is not updated with the latest information or does not load correctly, you should refresh the frame.

- Netscape – Right-click in the desired frame and select the Reload Frame option from the pop-up menu.
- Internet Explorer – Right-click in the desired frame and select the Refresh option from the pop-up menu.

### 2.3.9 Display Frame Refreshes Slowly

On some systems, the display frame may take from 30 to 45 seconds to respond after you click Compaq Analyze’s Next or Previous button located in the upper right corner of the display frame. To force the display frame to refresh more quickly, click the Next button followed by the Previous button.

### 2.3.10 Navigation Tree May Not Reflect Lost Director

If you are connected to a remote node and that node’s Director fails, the navigation tree may not show the disconnected node symbol for the node. Furthermore, any processes initiated by the web interface may or may not time out.

To verify the status of the Director on a remote node, use a web browser and try to connect directly into the node in question. If the node has failed, the browser will time out.

To reset the navigation tree, log out of Compaq Analyze and then log in again.

### 2.3.11 Null-Pointer Errors

If a NullPointerException error occurs while using the web interface, logout of Compaq Analyze and then login again. If you continue using Compaq Analyze, you may encounter additional errors or unexpected behavior.
2.3.12 JavaScript Errors

During heavy processing, you may see JavaScript errors. You can safely ignore these errors. Depending on the error dialog box that appears, respond in one of the following ways:

- Click the OK button on the error dialog box.
- If the dialog box asks if you want to continue running scripts, click the Yes button.

Netscape 3.x and JavaScript

If you are using Netscape 3.x or later and you attempt to resize the browser window while using Compaq Analyze, you will be logged out. You can resize the internal frames comprising the web interface as normal.

Due to the JavaScript limitations of Netscape 3.x, anytime the navigation tree is refreshed you may see the following error:

`Javascript Error: xxx..., line 159:
Undefined is not a number.`

This error has no effect on Compaq Analyze’s behavior or functionality. You can ignore the error and click OK to proceed.

When you are selecting tabs in the display window (such as the Problem Reports and Events tabs shown for processed event logs), you may see the following error:

`Javascript Error: xxx..., line nnn:
access disallowed from scripts at http://xxx...
to documents at another location`

You can ignore this error and click OK to proceed. Compaq Analyze is not trying to access any location other than the node you are connected to, and is functioning correctly. If this error message appears frequently, you may be able to reduce the occurrences by logging off and then logging into Compaq Analyze again.

These Javascript issues have been fixed in Netscape’s later releases.

2.3.13 Log Off Error

If the web interface displays the window indicating that you are already logged in and provides a quotation mark (”) as the username, clicking the Log off Username button will fail and generate a JavaScript error. To avoid this problem click the browser’s reload button. Once the window is reloaded, the screen will display the correct username. Once the window has reloaded the log off function will work correctly.

2.3.14 Extra Windows Open

Extra windows may open under the following circumstances:
Closing or Logging Off

If one of the following screens is open in the display frame, Compaq Analyze opens an extra browser window when you close your browser or log off:

- Add/Remove Group
- Add/Remove Node
- Open Log File

In addition, closing your browser without logging off Compaq Analyze may open a new browser window.

Navigation Tree Updating

An extra window may appear when the navigation tree is updating if your default browser is Netscape and you are using Internet Explorer to access Compaq Analyze. Under these circumstances, if the Compaq Analyze navigation tree is being updated rapidly, a new Netscape window may appear. You can safely close the new window.

2.3.15 Timeout Issue

If you consistently receive timeout notifications when using the web interface for a specific function, use the same function in the Command Line Interface as a workaround.

2.3.16 Restricting Remote Machines

Compaq Analyze can connect to other machine’s Directors using a set of standard IP port numbers. You can restrict access to your Director by changing the ports to nonstandard numbers and only disclosing the new port numbers to people who need access. For more information on configuring the ports, refer the Compaq Analyze User Guide.

2.3.17 Hostname Not Recognized

Unless the target system is accessible through your nameserver, you must use the IP address instead of the name of the node for remote connections.

For example, the hostname of a Windows machine using Dynamic Host Configuration Protocol (DHCP) is not listed with the nameserver, and therefore must be added using its IP address instead of its hostname.

2.3.18 Cannot Activate a Running Node

If you cannot activate a node that is currently running, try one of the following workarounds:
General Limitations
2.3 Web Limitations

- Continue to click on the “Activate Node” entry in the navigation tree intermittently until the node is activated.
- Log out of Compaq Analyze, and login again.

2.3.19 Negative Timeout Values

Using the web interface settings window, you can change the timeout values for the EvtAnalyzer component. If you need to change settings, make sure that the timeout value for the WForDecomp attribute is a positive number.

If the timeout value is a negative number, Compaq Analyze will fail.

2.3.20 Links From Other Applications

If you are running other applications that use web links, clicking on those links may close your Compaq Analyze session. If you click a link from another application, you may be logged out of Compaq Analyze and lose all the previously processed data.

Workaround

As a possible solution, open your web-browser and then open a second browser window for Compaq Analyze. In most cases, links from applications use the first browser window opened.
Operating System Specific Limitations

This chapter describes the Compaq Analyze limitations associated with each operating system.

- Limitations for Tru64 UNIX and Windows ........................................ page 3–2
- Limitations for Tru64 UNIX ......................................................... page 3–3
- Limitations for OpenVMS ............................................................ page 3–4
- Limitations for Windows ............................................................. page 3–11
Operating System Specific Limitations
3.1 Limitations for Tru64 UNIX and Windows

3.1 Limitations for Tru64 UNIX and Windows

The following limitations apply to both Tru64 UNIX and Windows.

3.1.1 Entering Paths in the CLI

When you are entering paths in the CLI you must pay special attention to any space or backslash characters.

3.1.1.1 Spaces

If you specify a path that contains spaces, it must be wrapped in double-quotes. However, this causes some operating system specific issues. When using this method to pass path or filename arguments to a non-OS program, the Windows and Tru64 UNIX shells do not expand path wildcards wrapped with double-quotes.

For example, "C:\Program Files\someDirectory\*.zpd" does not expand to all the *.zpd files in the directory "C:\Program Files\someDirectory".

Workaround

Change to a directory in which you do not have to use double-quotes and execute the Compaq Analyze CLI command of choice. For instance, in the example, do either of the following:

C:\>cd C:\Program Files
C:\>ca trans someDirectory\*.zpd

or

C:\>cd C:\Program Files\someDirectory
C:\>ca trans *.zpd

Exception

Windows does not require the second double-quote, since it automatically completes the set of quotes. Thus, if you enter the following command:

C:\>ca trans "C:\Program Files\someDirectory\hscrl.zpd"

DOS interprets it as:

C:\>ca trans "C:\Program Files\someDirectory\hscrl.zpd"

3.1.1.2 Backslash

Furthermore, with Windows, if a backslash character (\) is placed at the end of a double-quoted directory, the double-quote following the backslash is treated as part of the text.
passed to the program. This causes Windows to treat all characters, including spaces, before the end of the line as a single argument. For example, if you enter the following arguments:

"C:\Program Files\someDirectory\" C:\anotherDirectory

They are interpreted by the DOS command interpreter as:

"C:\Program Files\someDirectory" C:\anotherDirectory"

The second double-quote is considered part of the literal line of characters and the third double-quote is added by Windows. Thus, the two arguments are passed to the program as a single argument with a embedded double-quote character:

C:\Program Files\someDirectory" C:\anotherDirectory

**Workaround:**

There are two ways to avoid this problem:

- Do not place a trailing backslash character following a double-quoted directory name.
- Place two consecutive backslash characters at the end of the double-quoted directory name.

For example, you could replace the following command:

"C:\Program Files\someDirectory\" C:\anotherDirectory

With either of the following commands:

"C:\Program Files\someDirectory" C:\anotherDirectory
"C:\Program Files\someDirectory\" C:\anotherDirectory

### 3.1.2 Transferring Event Log Files with FTP

If you use FTP to transfer binary event log files between machines, make sure that the transfer mode is binary rather than ASCII. Compaq Analyze does not generate an error message when you process a file that was transferred in ASCII mode, but it may skip some events and produce unreliable analysis results.

### 3.2 Limitations for Tru64 UNIX

The following limitations apply to Tru64 UNIX.

#### 3.2.1 Network Connection to Local IP Address Time Out

On a Tru64 UNIX system with PPP as its only non-loopback interface, network connections to the local IP address time out.
Operating System Specific Limitations

3.3 Limitations for OpenVMS

Workaround

Add an entry to the routemap table with the local IP address routed through the loopback interface, as shown in the following example:

```bash
# ifconfig ppp0
ppp0: flags=51<UP,POINTTOPOINT,RUNNING>
    inet 10.0.0.2 --> 10.0.0.1 netmask ffffff00 ipmtu 576 trustgrp unknown
# route add 10.0.0.2 127.0.0.1
```

3.3 Limitations for OpenVMS

The following limitations apply to OpenVMS.

3.3.1 Lengthy Processing Time on Large Error Logs

Compaq Analyze may require additional time to process large error logs. To improve performance, adjust the analysis filter in order to process a smaller subset of events. Create a smaller, secondary event log file, which can then be submitted for analysis, translation, or any other Compaq Analyze process.

3.3.2 Trans Command Unresponsive

You may see instances where translation does not appear to do anything. If this occurs, adjust the analysis filter in order to process a smaller subset of events. Create a smaller, secondary event log file, which can then be submitted for analysis, translation, or any other Compaq Analyze process.

3.3.3 Analyze Command Aborts

You may see instances where analysis aborts prematurely. When this occurs, try adjusting the analysis filter in order to process a smaller subset of events. Create a smaller, secondary event log file, which can then be submitted for analysis, translation, or any other Compaq Analyze process.

Another alternative is to copy the error log file to a platform running another operating system such as Windows NT or Tru64 UNIX, and analyze the OpenVMS error log from there instead.

3.3.4 Memory Errors

When Compaq Analyze is used with large event logs, processing may abort with an out-of-memory message, a communications error, or a streams error. If you are using the web
interface, these errors are logged in the DESTA Director log. If you are using the command line interface, the errors will appear on the screen.

Workaround

Use the filtering tools to create a new, smaller event log, and try to process the new log. Refer to the Compaq Analyze User Guide for more information on creating new event logs.

If you have already tried creating a new log file and still received processing errors, try changing the heap memory allocation for the CLI command or for the Director process. The default settings for the Compaq Analyze command’s heap memory allocation are stored in the ca.com file located in the SVCTOOLS_HOME:[BIN] directory the default settings for the Director are stored in the desta.com file, located in the same directory.

Note

Each command executed by the ca.com file contains a DCL section that sets the value of the SVCTOOLS_HEAP logical. Normally, the SVCTOOLS_HEAP logical is set to the maximum heap allocated by the JRE for the command with the -mx switch. However, the JRE for OpenVMS allocates all of the memory specified with the -mx switch as the initial startup heap and does not free this memory until the process ends. As a result, increasing this maximum heap setting will consume extra resources from the time the command is invoked until the process is complete. Therefore, you should return the modified settings to their original values once you have finished processing the large event log.

Caution

It is important that you only set or change the SVCTOOL_* logica ls in the DCL scripts rather than from the command line.

Before increasing JVM memory, determine which process has run out of memory.

- If memory shortage errors appear in the DESTA log file (located at SVCTOOLS_HOME:[logs]desta_dir.log), then the Director’s memory should be increased. Performing unusually large manual analysis jobs from the web interface will most likely result in the failure of the Director process.
- If errors occur at the command prompt after a Compaq Analyze command is issued, the memory for that CLI command should be increased.

If the failure is related to the Director, you can increase the Director’s memory settings by changing the following symbol values in the SVCTOOLS_HOME:[BIN]desta.com file.

- defaultHeap
- defaultNativeStack
• defaultJavaStack

The Director’s memory settings can are determined by the following lines in the `desta.com` file (the values shown here are examples and may vary from the actual values):

```
$ !DESTA Director memory settings:
$ defaultHeap := "-mx65M"
$ defaultNativeStack := "-ss512k"
$ defaultJavaStack := "-oss400K"
```

If performing manual analysis with the CLI caused the out of memory errors, increase the memory settings for CLI analysis command. Search for the following lines in the `SVCTOOLS_HOME:[BIN]ca.com` file (the values shown here are examples and may vary from the actual values).

```
$ IF completion_code .EQS. "%X000000C9" ! ANALYZE command = 201 base 10
$ THEN
$ DEFINE SVCTOOLS_HEAP "-mx100M"
$ DEFINE SVCTOOLS_JAVA_STACK "-oss1M"
$ DEFINE SVCTOOLS_NATIVE_STACK "-ss1M"
```

**Note**

Depending on the system, continuing to increase the heap size may eventually cause disk swapping to occur.

Use the following guidelines when adjusting the settings:

• If Java.OutOfMemory errors occur, increase the heap size.
• If stack overflow errors occur, increase the stack settings.

**Modifying Memory Settings**

If you need to change the memory settings, open the appropriate `.com` file and search for the desired settings. The value for the memory setting uses the following format:

```
“-mxnu”
```

Where `n` refers to the maximum size of the memory allocation pool. The value of `n` must be greater than or equal to 1000 bytes. `u` indicates the units associated with the size. By default, the size is measured in bytes. Use the letter `K` to indicate kilobytes or the letter `M` to indicate megabytes.

The following example shows the how to specify a size of 256 kilobytes:

```
"-mx256K"
```
Modifying Heap Settings

The changes to the heap setting that are required will vary depending on the system. Use the following procedure to determine the correct heap size.

**Note**

The procedure here describes how to modify the ca.com file. If you are modifying the desta.com file you should use the procedure only the size increments should be smaller.

5. Using a text editor, change the value of the `SVCTOOLS_HEAP` from the default of “-mx100M” to “-mx80M”.

6. Save your changes and attempt to process the error log again.

7. If the log still fails to process correctly, determine which of the following circumstances applies:
   - If processing failed earlier (less of the log file was processed), open the .com file again and increase the heap size to “-mx120M”.
   - If processing failed later (more of the log file was processed), open the .com file again and reduce the heap size to “-mx60M”.

8. Continue modifying the heap size until the log file is processed correctly.

Modifying Stack Sizes

If you are increasing the stack sizes, be aware that the JVM stack settings (`-ss` and `-oss`) work collectively. For the best results, increase both the stack sizes. Table 3–1 provides some recommended sizes for increasing the JVM stack size.

<table>
<thead>
<tr>
<th>-ss (in kilobytes)</th>
<th>-oss (in kilobytes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>512</td>
<td>400</td>
</tr>
<tr>
<td>512</td>
<td>800</td>
</tr>
<tr>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>1500</td>
<td>800</td>
</tr>
<tr>
<td>1500</td>
<td>1200</td>
</tr>
<tr>
<td>1500</td>
<td>1600</td>
</tr>
<tr>
<td>1700</td>
<td>2000</td>
</tr>
</tbody>
</table>
As with other memory changes, modify the stack sizes using a text editor.

### 3.3.5 Logical Filenames Not Interpreted

Commands that use the logical names for a file’s directory path may result in an error. The following examples show commands that use logics and the reported error messages.

```bash
$ ca summ sys$errorlog:errlog.sys
Error During Command Parsing: Can't find the file/dir: sys$errorlog.

$ define/job e$logs user:[test.logs]
$ ca summ e$logs:errlog_090400.sys
Error During Command Parsing: Can't find the file/dir: e$logs.
```

**Workaround**

You can avoid this problem using one of the following workarounds:

- If you are processing the system event log, do not specifically reference `sys$errorlog:errlog.sys`. Most of the `ca` commands process the file `sys$errorlog:errlog.sys` if no filename is specified. For example the following command processes `sys$errorlog:errlog.sys` by default:

  ```bash
  $ ca summ
  ```

- Use the logical’s translation instead of the logical name. You can determine the logical’s translation using the `show logical` command. The following examples show the command and its output:

  ```bash
  $ show logical sys$errorlog
  "SYS$ERRORLOG" = "SYS$SYSROOT:[SYSERR]" (LNM$SYSTEM_TABLE)

  $ show logical e$logs
  "E$LOGS" = "USER:[TEST.LOGS]" (LNM$JOB_80D9BCC0)
  ``

  Once you know the translation, you can use it instead of the logical name, as shown in the following examples:

  ```bash
  $ ca summ SYS$SYSROOT:[SYSERR]errlog.sys
  $ ca summ user:[test.logs]errlog_090400.sys
  ```

### 3.3.6 Locked Error Log Files

OpenVMS 7.2-1 has a file locking limitation that may prevent locked files from being released. This locking problem may affect error logs, including the system error log (`sys$errorlog:errlog.sys`). If a CLI command that requires access to a locked file is invoked, an error will occur. The error message in the DESTA log is similar to the following:

EvtReader cannot read log directory[sub]errorlog.zpd. The file may be inaccessible.: IOException...
Where directory[sub] indicates the directory where the log file is located and errlog.zpd indicates the file name.

The file locking issue is fixed with the following patches:

- VMS721_SYS-V0500
- VMS721_UPDATE-V0100
- VMS721_PCSI-V0100

### 3.3.7 Event Logs May Be Read Incorrectly

Event logs created on a Tru64 UNIX system and processed with Compaq Analyze on an OpenVMS system may be read incorrectly.

If you are using a binary event log (binlog) that was created on a DS20 system, and not renamed or deleted prior to the V4.0E installation of Patch Kit 1 or Patch Kit 2, the binlog file will contain entries with both the traditional event header and the Common Event Header (CEH). Processing an event file of this type with Compaq Analyze on a system running OpenVMS may cause a timeout error.

**Workaround**

To process the binary event log, open it with a file editor. If the value of the first 4 bytes is not 0xFFFFFFFE, then the log file does not begin with a Common Event Header.

**Note**

The editor may display the bytes in the order they appear in the log file – least significant byte first – so the value may appear as EFFF FFFF in the file.

If the log file does not start with a Common Event Header, delete all the data proceeding the first CEH entry and then save the modified file.

### 3.3.8 Invalid Directory Error Message

When you use the analysis or translation commands and specify a directory as [...] or [ ], the process generates an Invalid directory path error message and quits.

**Workaround**

Specify the directory or directories explicitly.
3.3.9 Maximum Character Length Error Message

If you enter a lengthy CLI command, you may exceed the OpenVMS maximum command character length. As a result, OpenVMS may return a command error message that refuses the number of characters that you have used.

**Workaround**

Shorten the parameters in the CLI command. For example, you can substitute a lengthy absolute file path with a shortened relative path for a file’s directory.

3.3.10 Scrolling Output in Terminal Display

When you enter a CLI command in a command window, the resulting output will scroll continuously in the terminal display.

**Workaround**

To set a screen pause after each output page, enter the following command:

```
$PIPE ca trans errlog_filename | TYPE/PAGE=SAVE SYS$INPUT
```

You need to enter the command for all CLI outputs you want to pause. To simplify the process, you can save this stream to a variable by entering the following line in the login script:

```
$ more:==TYPE/PAGE=SAVE SYS$INPUT
```

Once this variable is established in the login script or at the command line, you can use the following command to set a screen pause:

```
$PIPE ca trans errlog_filename | more
```

3.3.11 Preserving File Attributes with FTP

If you are using FTP to transfer files for use with Compaq Analyze, you must ensure that the correct file attributes are preserved. Compaq Analyze files should be formatted as Streamed_LF with the CR control character. This file formatting restriction applies to binary event log files, knowledge rule sets (*.krs), and all other Compaq Analyze files containing binary (non-text) data.

When you are using FTP to transfer files to an OpenVMS system, use the following command to ensure that the attributes are set correctly:

```
set file/attr=(rfm:stmlf,rat:cr) filename.*
```
3.4 Limitations for Windows

The following limitations apply to Windows NT and Windows 2000.

3.4.1 No Response on Systems with Norton Anti-Virus

Compaq Analyze may stop responding on Alpha systems that have Norton Anti-Virus installed and running. When this happens the system shows 100% CPU usage, and the keyboard may stop responding.

**Workaround**

Turn off the Norton Anti-Virus auto mode.

3.4.2 Netscape Limitation

Netscape for Windows inserts extra blank lines in saved problem reports. If you use the Save As option to save Compaq Analyze problem reports in HTML format, the new HTML file will contain an extra blank line between every line of text. As a result, the new file appears double-spaced while the original appears single-spaced.

When Netscape’s Save As operation encounters the `<PRE>` tag in the original HTML file, it inserts extra lines into the source of the new file. Thus, regardless of the browser you use to open the new HTML file, the extra lines are present.

Since this problem only affects text formatted with the `<PRE>` tag, it does not affect most translated events.

**Workaround**

Right-click the Frame containing the HTML report and select View Frame Source from the pop-up menu. A text window containing the HTML source opens. In that window, press Ctrl-a to select all the text and then press Ctrl-c to copy it to the Clipboard. Paste the contents of the clipboard into an editor and save it to a file.

3.4.3 Windows 2000 Reported as Windows NT

The title bar on the web interface indicates the operating system where the Director is running. However, Java reports Windows 2000 as Windows NT. Thus, both Windows 2000 and Windows NT indicate Windows NT in the browser title bar.
Operating System Specific Limitations
3.4 Limitations for Windows