
Agilent Technologies

Advisor Reporter User's Guide



Agilent Technologies

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Product Support

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Introduction

Introducing Advisor Reporter

Advisor Reporter is a Windows-based application that “drives” Microsoft Excel and Word in the creation of tables, charts, and reports based on data collected with the Agilent Advisor LAN-WAN-ATM.

Advisor Reporter runs as a post-processor to the Agilent Advisor. You must first collect statistical data with your Agilent Advisor, then run Advisor Reporter to analyze it.

Advisor Reporter can be run on most conventional PCs and Agilent Advisors (including pcAdvisor models). Although using it on your Agilent Advisor is convenient, there are several advantages to using it on a separate computer. First, your Agilent Advisor can be returned to field use immediately after collecting data. Second, your desktop computer may have a faster processor, larger display, and more convenient access to network file storage and printing. Third, valuable disk space on your Agilent Advisor can be better used for storing user decode files.

Three Different Ways to Look at Network Data

Advisor Reporter provides three distinct ways of viewing network statistics, each of which is described briefly below:

TableBuilder creates formatted worksheets in Excel, giving you a tabular view of network statistics.

ChartBuilder creates full-page charts in Excel based on data in the worksheet tables created with TableBuilder

ReportBuilder creates fully-formatted report documents in Word based on the data in the worksheet tables created with TableBuilder. Each report is built-to-order based on your chart selections, and includes a cover page and table of contents, inline statistics summaries and glossary definitions for each measurement, and a wide range of embedded charts.

Show Historical Trends with Baselineing

One of the most effective uses of Advisor Reporter is to perform recurring scheduled baselines on each segment and circuit in your network. In doing so, you will be able to see trends forming and will have a much better understanding of traffic patterns and utilization of network components over time. Each successive baseline will provide more valuable information that you can use to make critical decisions about the number and placement of network devices throughout your company, including:

- File, print and archive servers
- Routers, bridges and switches
- Communications gateways
- Client-server environments
- Host front ends and controllers

Benchmark Applications and Network Devices

By using filters on the Agilent Advisor, Advisor Reporter becomes an invaluable benchmarking tool. You can orchestrate tests of various network scenarios and capture the results on the Agilent Advisor. After running potentially dozens of tests the data can be processed by Advisor Reporter with the results overlaid or compared side-by-side in Excel and Word.

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Installation

System Requirements

Please take a moment now to be sure your hardware and software meet or exceed the following system requirements:

Data Collection

- WAN
 - Agilent Advisor 10.0 minimum
(11.4+ for Frame Relay Enhanced DLCI, CIR, LMI)
- ATM
 - Agilent Advisor 9.5 minimum
(11.8+ for ATM VP.VC)
- LAN
 - Agilent Advisor 10.0 minimum (11.3+ for Token-Ring and FDDI)

Note

Both the Agilent Advisor and pcAdvisor hardware platforms are supported by Advisor Reporter. References made to the Agilent Advisor in this documentation also apply to the pcAdvisor.

Data Analysis

- Microsoft Windows 95, 98, 2000, or NT 4.0 SR3+
- Microsoft Office 97 SR2 or Office 2000 for Windows
 - Excel and Word components must be installed
 - Most Western and Far East International versions are supported (i.e. French, Spanish, German, Italian, Japanese etc.)
- Windows-supported output device (Color printer highly recommended)
- CD-ROM drive
- 6MB free disk space required for the Advisor Reporter program
- Up to 100MB+ free disk space required for Microsoft Office
- 100MB free disk space minimum recommended for work files
- Internet connection for downloading software updates

Installation Procedures

Advisor Reporter can be installed directly on an Agilent Advisor, pcAdvisor, or on a standalone or networked PC, as long as it meets the minimum requirements listed earlier in this chapter.

Advisor Reporter requires that both the Excel and Word components of Office 97/2000 be installed in order to run. Advisor Reporter only requires that you perform the minimum installations for Word and Excel in order to run, although you probably will want to install more components of each application for uses other than Advisor Reporter.

If you are upgrading an existing installation of Advisor Reporter (formerly Internet Reporter), you should deactivate the old copy of Advisor Reporter before proceeding. This can be performed by starting Excel and selecting **Add-Ins...** from the **Tools** menu, then unchecking the active Advisor Reporter application.

Note

Versions of Advisor Reporter prior to 10.2 installed themselves in a subdirectory of the Excel Program. Please note that the new software will be installed in its own folder, defaulting to the standard Program Files folder structure in Windows. This new location should be noted when installing future web update kits.

When you are ready to install ...

- 1: Install Microsoft Office 97/2000 (Excel and Word components minimum)
- 2: Run **Setup.exe** located on the Advisor Reporter CD-ROM
- 3: Follow the directions on the screen to complete the installation

Setup will automatically exit when it has completed. The next time you load Excel, the Advisor Reporter toolbar should be visible below the other Excel toolbars. If you do not see the Advisor Reporter toolbar, follow the procedures that follow to locate and activate it.

Activating and Deactivating Advisor Reporter

Once Advisor Reporter has been installed, it can be easily activated and deactivated from within Excel. The following procedures can also be used to activate Advisor Reporter for additional network users once it has been installed by the first user or network administrator.

- 1: With Excel running, select **Add-Ins...** from the **Tools** menu.

If Advisor Reporter has already been activated at least once on this system, **Advisor Reporter** will appear in the the list box.

- 2: If **Advisor Reporter** does not appear in the list box, press the **Browse...** button to locate Advisor Reporter. Switch to the directory you installed the program into during setup (default is usually C:\Program Files\Agilent\Advisor Reporter), select the file **Aar.xla** and press **OK**. **Advisor Reporter** should now appear in the list box.
- 3: You can activate and deactivate Advisor Reporter by checking or unchecking the box next to it and pressing the **OK** button to return to Excel.

If you would like to completely uninstall Advisor Reporter at any time, use the standard Windows Add/Remove Programs Control Panel utility to remove the software from your computer.

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Network Statistics Theory

Supported Agilent Advisor Measurements

Advisor Reporter is capable of processing statistics log files created by a wide variety of Agilent Advisor measurements and interface configurations. Please refer to the following tables when selecting measurements and interfaces to insure that resulting log files will be compatible with Advisor Reporter.

Note

Throughout this book, “program” refers to an Agilent Advisor application started from the operating system while “measurement” refers to an individual tool with an Agilent Advisor application.

Of course, the best way to insure that a measurement / interface config combination will provide the results you want is to perform a short test-run with the Agilent Advisor and Advisor Reporter. It only takes a couple of minutes to perform a test-run that can spare you the frustration of not getting the results you need.

LAN Measurements

Supported Interfaces

Ethernet, Fast Ethernet, Gigabit Ethernet (NDIS & Undercradle), Token-Ring, FDDI

Supported Measurements

Protocol Vitals

Available on all interfaces except Gigabit Ethernet (Undercradle). Combines vital statistics for Ethernet, Token-Ring or FDDI with TCP/IP, Novell, AppleTalk, Banyan VINES, OSI and DECnet into a single measurement. Individual Protocols can be turned on/off as desired.

Line Vitals

Available on all interfaces except Gigabit Ethernet (Undercradle). Same as Ethernet, Token-Ring or FDDI portion of Protocol Vitals.

Gigabit Vitals

Available on Gigabit Ethernet (Undercradle) interface. Provides detailed analysis of network utilization and efficiencies, FCS Errors, XOn/XOff counts, broadcast and multicast frames.

Protocol Stats

Available on all interfaces except Gigabit Ethernet (Undercradle). This series of measurements provides a detailed breakout of individual protocol types, with specific configurations packaged into separate measurement files. The default toolbar icon details all protocols be DLL types and SAPs. Other configurations are available by opening various .msx measurement files. "Protocol Stats Stk.msx" details all protocols by major protocol stack for a broader overview than the default Protocol Stats config.

Other .msx files are protocol stack-specific, providing the most detailed breakout of protocols, ports, types, sockets, or IDs, depending on the protocol stack. Individual protocol stats configurations are provided for:

AppleTalk protocols	IP protocols and ports
Banyan (VINES) protocols and ports	Novell (IPX) types and sockets
Cisco ISL and 802.1q VLAN Ids	OSI protocols
DECnet protocols	

All Protocol Stats configs count frames, bytes, average frame length, and DLL Errors, as well as a complete and very useful frame length distribution matrix.

MAC Node Stats

Available on all interfaces except Gigabit Ethernet (Undercradle). Provides detailed statistics by MAC Node Address. A configurable software filter allows this measurement to count only non-errored frames or frames to, from or to/from a specific station address. Separate transmit (Tx) and receive (Rx) counters for frames and bytes combine with transmit counters for errors, broadcasts and multicasts (functional address frames in Token-Ring). Token-Ring configs also count source routing frames (Tx and Rx) and source route broadcasts. FDDI configs count SMT (Tx and Rx), bad FCS, E bit, length error and violation frames as well as SMT bytes.

WAN Measurements

Supported Technologies

Frame Relay, X.25, HDLC, SNA-SDLC, PPP, ISDN

Supported Interfaces

T1, CEPT E1, V-Series, BRI S-T, BRI-U, DS3, E3, HSSI

Support Measurements

Line Vitals

This measurement combines a wide range of general statistics together. Its counters include utilization and throughput, frame efficiencies, line errors and interface-specific errors. Additionally, Line Vitals provides 16 highly configurable filters/counters which allow for the capture of network-specific types of traffic or conditions.

Many pre-defined filters/counters are available on the Agilent Advisor via the Start menu structure to save you the time of creating them yourself. Of these, many are recognized by Advisor Reporter as “built-in” configurations, producing additional interpreted statistics, which are described later in this chapter.

Line Status

This measurement provides detailed signalling statistics for T1, E1, BRI U, DS3 and E3 interfaces. BRI U configurations also include a useful EOC Report, while DS3 configurations include FEAC statistics.

CIR Statistics

The Agilent Advisor allows service providers and carriers to monitor and analyze the committed information rate of every user channel in the link and simulate controlled traffic as specified in the service contract. Advisor Reporter documents the results of this analysis so that network managers can make appropriate modifications in service levels, and increase or decrease network bandwidth to meet exact customer requirements.

LMI Expert Statistics

This measurement allows you to detect network problems through monitoring of the Frame Relay signaling protocol LMI (Local Management Interface). Timers (T391, T392) can be tracked along with general LMI related parameters which include Sequence number errors, Single PVC Async Messages, Down PVCs, CLLM Count, and Observed DLCIs.

Channel Statistics & Enhanced DLCI Stats

These measurements are available for Frame Relay (DLCI) and X.25 (LCN) technologies. Up to 30 virtual circuits can be trended, including general utilization, throughput, and line error counters.

When processing Enhanced DLCI Stats from the Agilent Advisor 11.4, you can choose from any 30 of the 1024 tracked DLCIs in the log file. Advisor Reporter can even select the Top 10, 20 or 30 DLCIs automatically for you.

DLCI statistics also include DE, FECN, and BECN counters for each virtual circuit. Advisor Reporter allows you to enter a CIR value for each DLCI, providing CIR Utilization trending by DLCI.

X.25 configurations can also include a complete frame size distribution.

BERT Results

The BERT results measurement provides fast and reliable documentation of physical layer tests on T1 and E1 interfaces.

ATM Measurements

Supported Interfaces

T1, E1, DS3, E3, OC-3c

Supported Measurements

Line Vitals

This measurement combines a wide range of general statistics together. Its counters include busy, idle, and total cells, utilization and throughput, good/errored cell efficiencies, HEC errors and interface-specific errors. Additionally, Line Vitals provides 12 highly configurable filters/counters which allow for the capture of network-specific types of traffic or conditions.

Several pre-defined filters/counters are available on the Agilent Advisor via the Start menu structure to save you the time of creating them yourself. Of these, several are recognized by Advisor Reporter as “built-in” configurations, producing additional interpreted statistics, which are described later in this chapter.

Line Status

This measurement provides detailed signalling statistics for all supported interfaces. DS3 and OC-3c configurations also include FEAC statistics.

VP.VC Stats

This measurement from the Agilent Advisor 11.8 allows you to choose from any 30 of the 1024 tracked VP.VCs tracked in the log file. Advisor Reporter has logic to help select the select the Top 10, 20 or 30 VP.VCs automatically for you. Counters track utilization in cells, % of bandwidth, and kbps. Additional statistics are provided for HEC Errors and CLP Bit Set.

BERT Results

The BERT results measurement provides fast and reliable documentation of both cell-based and frame-based test on DS3, E3, and OC-3c interfaces.

Collected and Interpreted Statistics

The data you see in Advisor Reporter tables, charts, and reports is based on the specific configurations of each supported measurement. In addition to those statistics which can be viewed on the Agilent Advisor's screen while you are collecting data, Advisor Reporter calculates other “interpreted” statistics that provide further insight into the operation of your network.

When you process a log file that contains a supported “built-in” configuration of filters/counters, Advisor Reporter will prompt whether you want to process the file as a “Basic, User-defined, or Other” config or a predefined “built-in” config. When you select the predefined config option, even more interpreted statistics and charts will be built based on the recognized filters/counters.

Understanding Sample Intervals and Sample Periods

Before you begin collecting trended data, it is very important that you understand how Sample Intervals and Sample Periods work. Failure to pay attention to the following guidelines could result in data files which are either too large to work with or ones that produce undesirable output.

Sample Interval

The time between entries in a measurement log. For example, a 10-second sample interval writes an entry in the log once every ten seconds, while a 1-minute sample interval writes an entry once every minute.

Sample Period

The total amount of time between the first and last entries in the measurement log.

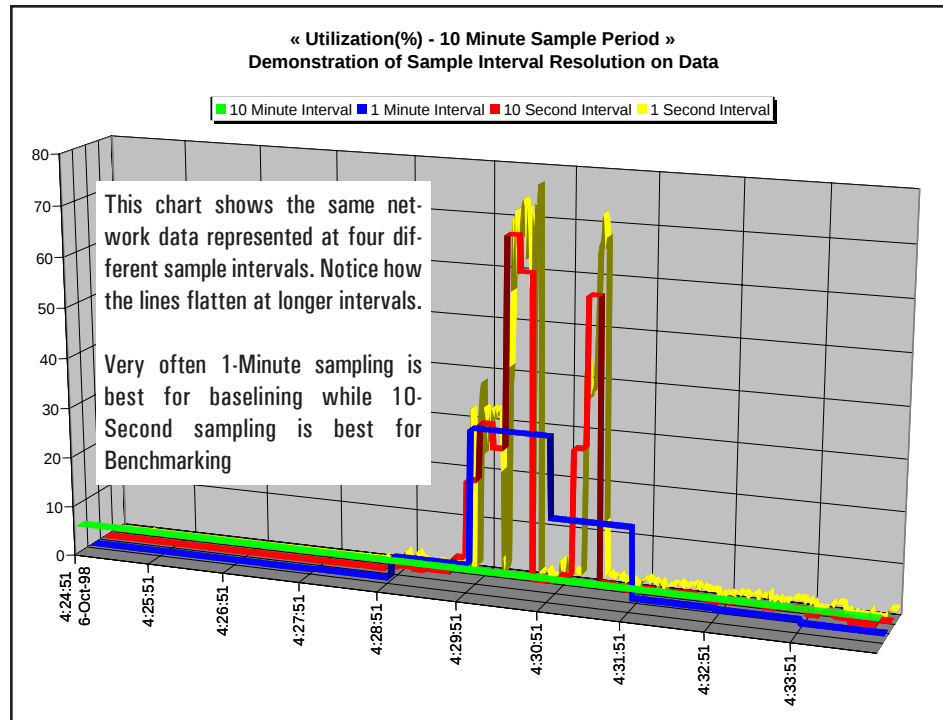
The Advisor collects statistics every second regardless of which sample interval you select. Depending on the measurement and statistic either an average or total value will be written to the log file at every sample interval.

To illustrate the effect of averaging, look at the following example. Notice that the first 1-minute sample interval entry is actually the average of the first 6 10-second samples, and that the first 10-minute sample interval entry is actually the average of the first 10 1-minute samples.

Sample Interval	Sample Data
10-second	03 12 03 04 08 36 06 02 00 00
1-minute	11 09 08 12 11 05 07 12 13 14
10-minute	10

Notice how the first entry for the 1-minute sample interval is 11. This figure is the average of the first 6 10-second samples which ranges from 0 to 36. Let's say that these samples represented Utilization % on the network. When the data is viewed at 1-minute intervals, the burst to 36% is missed and only represented in an average which flattened down to 11% for the 1-minute sample interval.

When collecting data for several hours or days at longer sample intervals only longer periods of bursty activity will be observed. For baselining purposes this is fine, because most network planning is based on averages (as opposed to benchmarking and problem solving which need to show even the smallest bursts of activity for any given statistic.)



Selecting an Appropriate Sample Interval

The Advisor allows you to select sample intervals ranging from 10-seconds to several hours. Selecting the most appropriate sample interval for your data can be a simple process if you do the math. If the sample period is more important to you, you must select a sample interval which will yield a manageable number of samples. Conversely, if you require a specific sample interval, you should limit the sample period accordingly.

Selecting a Sample Interval for Baselineing

When baselineing a network segment, you are generally more interested in obtaining an overview of network performance than specific per second detail. If you were to log 1-second samples over an 8-hour day, you would have 28,000 data points for every statistic. At that number, Advisor Reporter tables would be hundreds of pages long, charts would be unreadable and analysis would be difficult, if not impossible. A more practical sample interval of 1-minute would yield only 480 samples in an 8-hour day, or 1440 samples over a 24-hour period. At these intervals, your tables and charts will process quickly with much better looking results.

When baselineing most network segments, a 1-minute or 5-minute sample interval is usually the best choice. Because Advisor Reporter provides average per second values for all Utilization % and Throughput kbps reports, short-term peaks and valleys will be flattened to a more visually readable and statistically significant range. When appropriate for a particular statistic, especially certain errors, Advisor Reporter shows total counts instead of averages for each sample interval, insuring that no single event is ever overlooked.

Selecting a Sample Interval for Benchmarking

When benchmarking a network component or application, you are generally more interested in the peaks and valleys produced by shorter sample intervals. In this case you will limit your data file size by choosing an appropriate sample period. Most benchmarks can be completed easily in just a few minutes. Some may require up to hour. At a 10-second sample interval, even a full hour of data is only 360 samples.

If you need a sample interval below the minimum configurable in the Advisor's log config setup screen, you can create short-duration Quick Trends at sample intervals as low as 1-second. Quick Trends files are created by saving statistics files after a run has been completed instead of or in addition to logging the entire run to disk.

Understanding WAN & ATM Filters/Counters

Most WAN programs have the ability to configure up to 16 filters. ATM programs offer 12 filters. Each filter is assigned an action that tells the Agilent Advisor what to do when a frame meeting the filter criteria is encountered. When configured for viewing protocol decodes these actions have a great significance. When collecting stats for Advisor Reporter, however, they act differently as described below:

Action	Effect on Advisor Reporter
Store	Count
Suppress	Count
Count	Count
Start	Count, but logging will stop when buffer is full
Center	Count, but logging will stop when buffer is full
Halt	Count, but logging will stop when event occurs
Beep	Count
Off	Do not count this filter, others work fine

These filters are what make each group of programs different from each other. Each “built-in” program has been preconfigured with filters that will collect statistics which are relevant to that program. For example, HDLC LAN Traffic Counts will contain different filters than SDLC Monitor even though they are both using the Bit-Oriented Protocols (BOP) template.

Advisor Reporter uses the statistics found in many of the built-in program filters to produce more detailed tables and charts. If you change any of the filters in a built-in program, Advisor Reporter may not be able to produce the enhanced tables but will still build comprehensive tables and charts based on the master template. In these cases, your user-defined filters / counters will appear in tables and can still be charted on, you just won’t get some of the enhanced statistics of the built-in programs.

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Collecting LAN Statistics

Selecting and Running a LAN Program

The LAN program on the Agilent Advisor can be started in several configurations, all of which are compatible with Advisor Reporter. Choose from the following scenarios to pick the right LAN program:

Live Network

If you will be collecting data from a live network, run one of the following options in the **LAN Analysis** Windows Start Menu:

Ethernet SW Edition	Agilent Advisor 11.6+
Ethernet Undercradle	
Fast Ethernet Undercradle	
Gigabit Ethernet	
FDDI Undercradle	Agilent Advisor 11.3+
Token-Ring Undercradle	Agilent Advisor 11.3+

Datafile replay on Agilent Advisor or PC without Ethernet undercradle

If you will be replaying LAN datafiles on an Agilent Advisor or other PC without an undercradle installed, run one of the following options in the **LAN Analysis** Windows Start Menu:

Off-Line LAN Expert	Agilent Advisor 10.2+
Off-Line Ethernet Expert	Agilent Advisor 11.3+
Off-Line FDDI Expert	Agilent Advisor 11.3+
Off-Line Token-Ring Expert	Agilent Advisor 11.3+

Replay of ATM or WAN datafiles with LAN

The Agilent Advisor allows you to replay Frame Relay, HDLC, and ATM datafiles through the LAN software for analysis. If you will be replaying one of these files on an Agilent Advisor or other PC, run the appropriate **Off-Line LAN-xxx Expert** option in the **ATM Analysis** or **WAN Analysis** Windows Start Menu. These options are only available with Agilent Advisor 10.2 or greater software.

Configuring a LAN Program

The LAN program environment is made up of a diverse collection of measurements, many of which can be used with Advisor Reporter. The key to success in collecting statistics for Advisor Reporter is in following the basic procedures described in this section.

Step 1: Close All Open Measurements

Before you begin configuring the LAN environment for data collection, it is very important that you start with a “clean” environment. This means closing any open measurement windows by selecting **File – Close Measurement** or by pressing **CTRL-F4**.

It is OK to leave the Configuration window open, as this is not a measurement and will be used later in the configuration process

CAUTION

If an Expert Analyzer measurement window is left open, subsequent measurements may open as embedded measurements within the Expert Analyzer. The Agilent Advisor does not allow embedded measurements to be logged individually, making them incompatible with Advisor Reporter.

Step 2: Open LAN Measurements

There are three major statistical LAN measurements that can be used with Advisor Reporter: **Protocol/Line Vitals**, **Protocol Stats**, and **MAC Node Stats**. There are many variations of these measurements, which are described in greater detail in Chapter 3 of this book. In terms of management, however, all measurements are handled the same way. This section addresses these basic measurement management issues.

Statistical LAN measurement configurations are very easy to manage once you understand how they work. Instead of being mysteriously embedded in the software, each statistical measurement configuration is actually stored on disk as an individual .msx file.

When you first start using LAN, you'll see a toolbar with many different icons representing different types of measurements. When selected, these icons open default configurations of some of the most common measurements. While convenient for many tasks, not all measurements are represented in the toolbar. Those that are force you to reconfigure them each time they are opened, making repetitive use of the same configuration more time-consuming.

The LAN measurement toolbar provides quick access to commonly used measurements



A more complete and flexible way of managing measurements is to use the disk-based versions. Disk-based measurements not only allow you to access all available measurements, they allow you to save custom configurations for easy reuse.

Following are the basic procedures for opening and saving measurements:

Open Measurement from Toolbar

Click on the appropriate measurement icon

Open Measurement from Disk

Select **File – Open Measurement...** or press **Ctrl-M**

Save Measurement to Disk

Select **File – Save Measurement...** then type a filename and click the **Save** button or press **ENTER**. You can also include a **Comment** if you desire for future reference.

Step 3: Configure LAN Measurements

Now that you know how to manage measurement configs, the following pages detail the configuration options for each Advisor Reporter-compatible measurement.

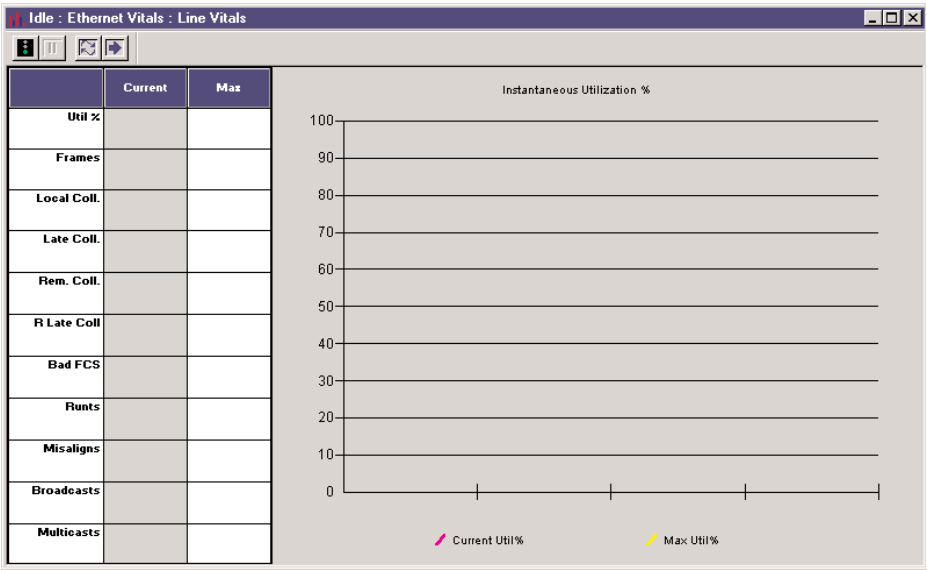


Measurement: Line Vitals

Toolbar Icon Filename Equivalent: Line Vitals.msx

Configurable: No

Notes: If you are planning on running Protocol Vitals, there is no need to run Line Vitals. Protocol Vitals includes all of the Line Vitals information. Running both at the same time consumes valuable resources unnecessarily.





Protocol Vitals

Toolbar Icon Filename Equivalent: Protocol Vitals.msx

Configurable: Yes. Press ALT-F10 or config icon in measurement-window toolbar

Notes: Each protocol has its own tabbed configuration page. By default each protocol is enabled. You should disable any protocols that you do not care to have represented individually in Advisor Reporter. This can make for a much more concise and neater-looking report.

If you would like to incorporate threshold exception reporting in Advisor Reporter, now is the time to individually configure threshold values that will cause the Agilent Advisor to log threshold events. Each statistic has a configurable threshold and an enabled checkbox. Disabling a statistic does not remove it from being counted in basic tables; it only controls the counting of threshold exceptions.

Click here to configure this measurement

Each protocol can be individually turned on and off using this checkbox

Threshold exception reporting can be enabled and values configured individually for each statistic

Idle : Ethernet, TCP/IP, Novell, AppleTalk, VINES, OSI, DECnet Vitals : Protocol Vitals

Protocol Vitals Configuration

Ethernet Vitals | TCP/IP Vitals | Novell Vitals | AppleTalk Vitals | Banyan VINES Vitals | OSI |

☒ Enabled

Enabled	Stop-on	Statistic	Threshold
☒	☐	Pre-filter Ethernet Utilization	40
☒	☐	Pre-filter Frames	700
☒	☐	Pre-filter Local Collisions	35
☒	☐	Pre-filter Late Collisions	0
☒	☐	Pre-filter Remote Collisions	35
☒	☐	Pre-filter Remote Late Collisions	0
☒	☐	Pre-filter Frames with Bad FCS	0
☒	☐	Pre-filter Runts	0

Use Ctrl+Space to toggle all check marks

OK Cancel



Protocol Stats

Toolbar Icon Filename Equivalent: Protocol Stats.msx

Variations:

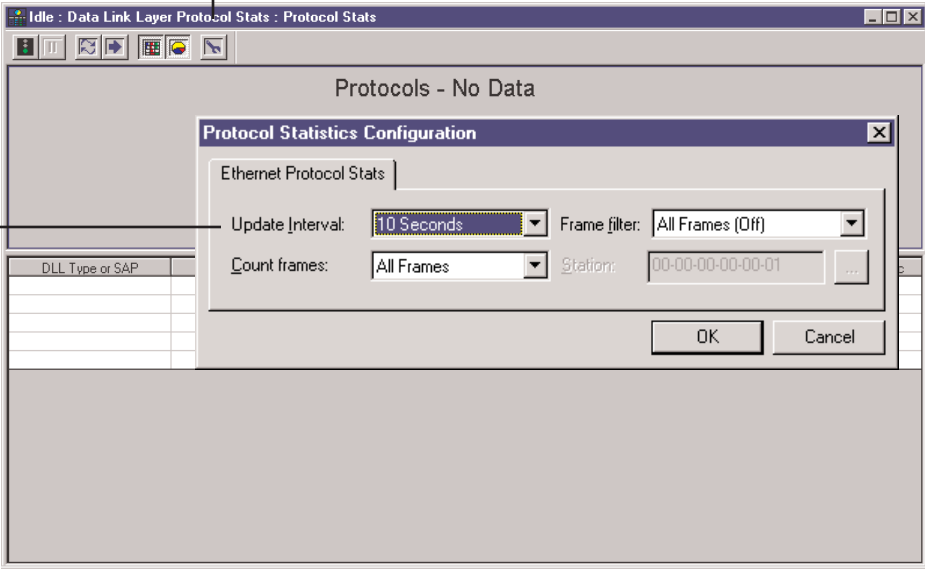
All Protocols by Stack	Protocol Stats Stk.msx
AppleTalk protocols	Protocol Stats AppleTalk.msx
Banyan (VINES) protocols and ports	Protocol Stats Vines.msx
Cisco ISL or 802.1q VLAN Ids	Protocol Stats VLAN.msx
DECnet protocols	Protocol Stats DECnet.msx
IP protocols and ports	Protocol Stats IP.msx
Novell (IPX) types and sockets	Protocol Stats Novell.msx
OSI protocols	Protocol Stats OSI.msx

Configurable: Yes. Press **ALT-F10** or config icon in measurement-window toolbar

Notes: This measurement has its own **Update Interval**. For best results, this value should match the sample interval you select for **Disk Logging** in the global file config. Other configurable items vary among measurement variations, generally acting as software filters.

Click here to configure this measurement

Set the **Update Interval** to match the sample interval selected for **Disk Logging** in the global file config for best results





MAC Node Stats

Toolbar Icon Filename Equivalent: **MAC Node Stats.msx**

Configurable: Yes. Press **ALT-F10** or config icon in measurement-window toolbar

Notes: This measurement has its own **Update Interval**. For best results, this value should match the sample interval you select for **Disk Logging** in the global file config. If you wish filter out errors or focus in a particular station, configure the appropriate fields.

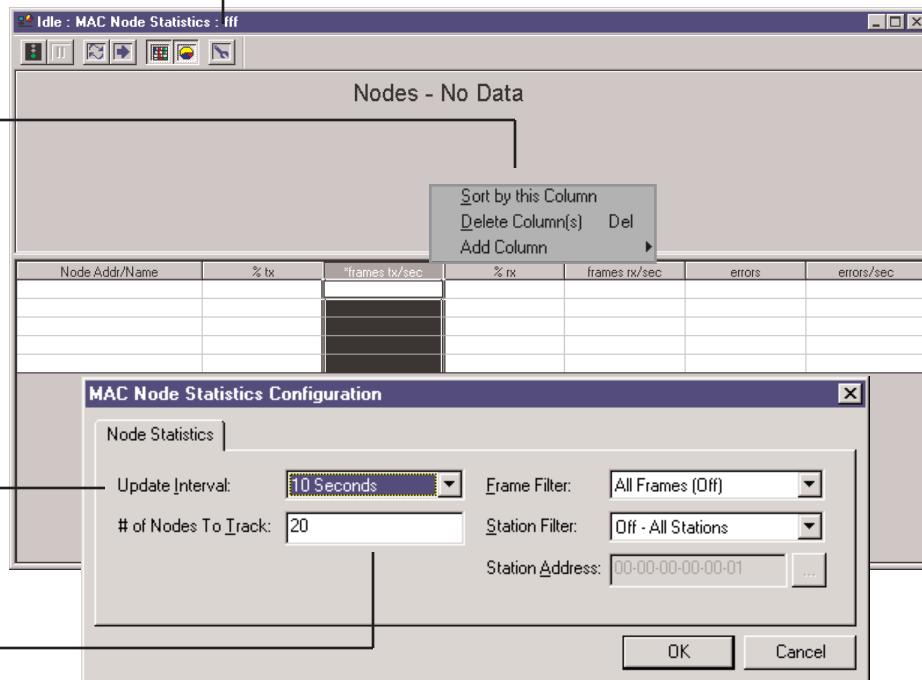
This measurement defaults to track only the top 20 nodes. You may want to increase this value to the maximum of 32 nodes. TIP: the top 'n' nodes are selected based on the active sort key for the measurement, which by default is % tx. To select a different sort key, right-click on column header you want to use as the sort key and choose **Sort by this Column** from the pop-up menu. An *asterisk appears before the name of the sort key statistic.

[Click here to configure this measurement](#)

Set a sorting order to change the top 'n' nodes in reports by right-clicking a column heading

Set the **Update Interval** to match the sample interval selected for **Disk Logging** in the global file config for best results

Track up to 32 nodes,
even though the default
is 20.



Step 4: Interface/Protocols Configuration

Before you can begin collecting data, you must properly setup the LAN Interface/Protocols configuration page.

To access the Interface/Protocols configuration page, press **F10** or click the Config Icon to display the configuration pages, then click on the **Interface/Protocols** tab to display the Interface/Protocols configuration page.

If you have trouble configuring any of the parameters on this page, please refer to the Agilent Advisor LAN User's Guide, the on-line help system, or the on-line documentation.

Verify that the **Network Data Source** settings are correct by perform a short test run of a measurement on the network

Setting a **Monitor Type** to a value other than **Continuous** may cause the Agilent Advisor to stopped collecting stats before your configured log period. Only change this field for special circumstances.

Step 5: Log Configuration

Configuring the logging options is the last configuration step before you can begin collecting data with LAN.

To access the Log configuration page, press **F10** or click the Config Icon to display the configuration pages, then click on the **Log** tab to display the Log configuration page.

Note

You will notice that the **Disk Logging Options** box contains a list of all the measurements you opened and configured in the previous steps. Opening a measurement, however, does not automatically add it to the disk logging list. **You must place a checkmark next to each measurement you want to log!**

The rest of the settings should be easy to follow. The **Disk Logging Interval** and **Period** should be set to the sample interval and sample period you selected in Chapter 3. Just add a filename and an optional description and you are ready to collect statistics. You should change the filename from the default to prevent having your data overwritten by accident at a later date.

You must place a checkmark next to each measurement you want to log!

Enter your chosen sample interval and period, along with a unique filename and optional description

The screenshot shows the 'LAN Stopped: Configuration' dialog box with the 'Log' tab selected. It contains two main sections: 'Disk Logging Options' and 'Disk Logging Configuration'.

Disk Logging Options: A table with columns 'On/Off', 'Log', and 'Data Type'. The 'On/Off' column has four checked boxes. The 'Log' column has four clock icons. The 'Data Type' column lists: Protocol Vitals, Protocol Stats, Protocol Stats IP, and MAC Node Stats.

On/Off	Log	Data Type
☒		Protocol Vitals
☒		Protocol Stats
☒		Protocol Stats IP
☒		MAC Node Stats

Disk Logging Configuration: Fields for Interval (hh:mm:ss) set to 000 : 01 : 00, Period (hh:mm) set to 024 : 00, File Name (C:\Advisor\Lan\Data\statslog.dat), and Description (empty). A 'Browse...' button is next to the File Name field.

The LAN Program Data Collection Process

When you are ready to begin collecting data, click the **Start** icon, or from the **Run** menu select **Start**.

No matter what your setting for the Logging Period, the Agilent Advisor will continue running until it completes the duration of the Monitor Period or you stop it manually. To stop the unit manually, simply click the **Stop** icon, or from the **Run** menu select **Stop**.

After stopping the Agilent Advisor, your log file is ready to be processed by Advisor Reporter.

Note

If you would like to create a log file containing the last few hundred samples at resolutions as low as 1-second, follow the instructions in the section, “**Saving LAN Quick Trends**” later in this chapter before exiting your Agilent Advisor LAN program.

When you are finished saving your data files, proceed to Chapter 6, Using Advisor Reporter.

Saving LAN Quick Trends

Whether or not you configure the Agilent Advisor to create a log file before you start a run, you can always create a Quick Trends log file after the run is stopped. Quick Trends log files contain the last few hundred samples at resolutions as low as 1-second and can be effective in troubleshooting network problems when used in conjunction with the decode and event monitoring capabilities of the Agilent Advisor.

To create a Quick Trends file after you stop the run, perform the following:

- 1: From the **File** menu select **Save (Data)...**, or press **Ctrl+S**
- 2: You will be prompted to enter a filename. The path and filename you select should be different from any configuration files or previously logged data files to insure that you do not overwrite any data.
- 3: Make sure you check the boxes next to **Configuration** and **each of the desired measurements** you wish to have Quick Trends for in the **Save Options** section. Otherwise, Advisor Reporter will not be able to process the file !!!

Now proceed to Chapter 6, Using Advisor Reporter.

Replaying Datafiles with LAN for Advisor Reporter

If you are using one of the using the **Off-Line LAN Experts**, you can replay the data files through measurements for use with Advisor Reporter. The procedures are a little different than running from a live network, but are easy to follow.

- 1: From the **File** menu select **Open (Load Data)...**, or press **Ctrl+O**. Locate the file you wish to replay, check to make sure it contains **Decode Data** in the **Open Options** box at the bottom of the screen and press **ENTER** or the **Open** button.
- 2: Open the first measurement you would like to replay the data through using techniques described earlier in this chapter.
- 3: With the measurement window open and configured the way you want, from the **Run** menu select **Run from Buffer** or press **CTRL-B**.
- 4: Select the frame range you would like to replay into this measurement and press **ENTER** or the **OK** button.
- 5: After the replay has stopped, you can repeat steps 2 through 4 above to replay the data through additional measurements.
- 6: After you have finished replaying the data through all of the desired measurements, from the **File** menu select **Save (Data)...**, or press **Ctrl+S**. Select a different filename than the one you opened so you do not overwrite it.
- 7: In the **Save Options** box at the bottom of the screen, make sure that boxes next to **Configuration** and **each of the desired measurements** you wish to process with Advisor Reporter have check marks in them. Otherwise, Advisor Reporter will not be able to process the file !!!

You may want to uncheck the **Decode Data** box to make the file significantly smaller for storage and transportation as Advisor Reporter only reads the statistical measurements.

When you have finished making your selection, press **ENTER** or the **Save** button.

...

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- Configuring an ATM or WAN Program 5-3
 - Step 1: Interface/Protocols Config 5-3
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Collecting ATM and WAN Statistics

Selecting and Running an ATM or WAN Program

From the Windows Start Menu, run any Advisor Reporter-compatible ATM or WAN program.

CAUTION

Not all ATM or WAN programs are compatible with Advisor Reporter. Refer to Chapter 3 for a complete list of compatible programs.

All programs have Interface/Protocols configuration pages that define the operating parameters of a line and how the Agilent Advisor is connected. No matter which program you have selected, you should always verify that the Interface/Protocols configuration is appropriate for the situation.

When you start an ATM or WAN program, the configuration pages may be displayed automatically. If not, press **F10** to display them and proceed to the next section of this chapter to configure the program.

Configuring an ATM or WAN Program

Because of the diversity of ATM and WAN interfaces and standards, configuring your Agilent Advisor can at first seem a bit overwhelming. The steps in this section should help make the process straightforward and insure that you collect statistics you really want for Advisor Reporter. Please note that these steps will refer you to the User Guides that shipped with your Agilent Advisor, additional interface modules, as well as major software updates.

Step 1: Interface/Protocols Config

Before you can begin collecting data, you must properly configure the Interface/Protocols configuration page of your chosen ATM or WAN program. The settings you make here not only allow you to successfully connect to the network, but can affect which statistics will be shown in Advisor Reporter.

To access the Interface/Protocols configuration page, press **F10** or click the Config Icon to display the configuration pages, then click on the **Interface/Protocols** tab to display the Interface/Protocols configuration page.

Data Source

The **Data Source** should be set to **Network** for data collection. Please refer to the User's Guide that shipped with your interface module or use the on-line help system for specifics on configuring the **Interface Type** and corresponding **Configuration...** button options.

Protocols

Please refer to the User's Guide that shipped with your interface module or use the on-line help system for specifics on configuring the various **Protocols** options.

Monitor Options

CAUTION

If you select a Monitor Type other than Continuous the Agilent Advisor may stop collecting data before you want it to. The Monitor Type parameter takes precedence over the settings for the Disk Logging Period you will set in the next step.

Parameter	Possible Values
Monitor Type	Continuous - Network data will be collected for an indefinite period of time. This is the recommended setting. Timed - Network data will be collected only for the length of time you specify here, even if the Disk Logging Period is longer. Full Buffer - This option should only be used when performing decodes or interactive troubleshooting. This option is typically used only with Advisor Reporter Quick Trends.
Monitor Period	hh:mm - This is the length of time the Advisor should run.

Step 2: Log Config

Now that you have instructed the Agilent Advisor on how to connect to your network, you must instruct the Agilent Advisor on what to do when the program is running. Among other things this is where you configure the Agilent Advisor to log data to disk for later analysis by Advisor Reporter.

To access the Log configuration page, press **F10** or click the Config Icon to display the configuration pages, then click on the **Log** tab to display the Log configuration page.

Disk Logging Options

This section contains a list of all available measurements that can be logged to disk. Not all measurements are compatible with Advisor Reporter, so be sure to select only from the following list:

- Line Vital Statistics (Also used for ATM BERT)
- Line Status Statistics
- CIR Statistics
- LMI Expert Statistics
- DLCI Statistics (Frame Relay pre-Agilent Advisor 11.4)
- LCN Statistics (X.25)
- VP.VC Stats (ATM 11.8)
- BERT Results (WAN)

Disk Logging Configuration

This section provides the Advisor with the rest of the details required to configure logging for Advisor Reporter

Parameter	Possible Values
Logging Interval	hhh:mm:ss - This tells the Advisor how often its counters should be written to disk. Each Interval will be represented by a single row in an Advisor Reporter table. Most of the time you will use an Interval of 10 minutes or less. Refer to Chapter 3 for more theory on selecting an appropriate logging interval.
Logging Period	hhh:mm - This tells the Advisor when it should stop logging to disk even if the program is configured to run continuously or for a longer period of time. Remember, you can always manually stop the collection of data at any time. This feature simply allows you to limit the amount of data in your Advisor Reporter tables and charts more easily. Refer to Chapter 3 for more theory on selecting an appropriate logging period.
Reset after each interval	Checked - This Agilent Advisor 11.1+ WAN-only feature will cause the Agilent Advisor to reset its counters to 0 after each sample is written to disk. While this option will provide useful trending of minimum and maximum utilization and throughput values over time, some data can be missed by the Agilent Advisor during the reset process. Unchecked - do not reset the counters at each log interval.
File Name	You should replace the default filename with a more meaningful one for use with Advisor Reporter. You can either type the new name here or click the Browse... button to navigate the Windows folder structure. The filename you create will automatically be given the extension ".dat". Your completed line should look something like this: C:\USER\FILENAME.DAT
Description	You can type a description for the log file that will help you identify this file in the future.

Step 3: Saving an ATM or WAN Program Configuration

Congratulations, you have completed the configuration options necessary for collecting ATM or WAN statistics. If you need to modify the Filters/Counters or Decode Table before running the program, do so now. Please refer to the User's Guide that shipped with your interface module or the on-line help for assistance with these advanced topics.

When you have finished making modifications to the configuration be sure to save your changes by performing the following:

- 1: From the **File** menu select **Save**, or press **Ctrl+S**
- 2: You will be prompted to enter a filename for your configuration. The path and filename you select should be different from the log filename you selected in the previous step. Also be sure that just the **Configuration** box in the **Save Options** section is checked as you do not want to save data from any previous runs at this time.

Your completed line should look something like this:

C:\USER\FILENAME.DAT

If you need to restore this configuration in the future, from the **File** menu select **Open**, or press **Ctrl+O** and select the filename you just created.

The ATM and WAN Program Data Collection Process

When you are ready to begin collecting data, click the **Start** icon, or from the **Run** menu select **Start**.

While the program is running, you should look at status lines near the bottom of your screen to insure proper operation. Check to make certain the **State** of the machine is **Running**. Other information in this area should also be verified visually.

No matter what your setting for the Logging Period, the Agilent Advisor will continue running until it completes the duration of the Monitor Period or you stop it manually. To stop the unit manually, simply click the **Stop** icon, or from the **Run** menu select **Stop**.

If you configured the Agilent Advisor to create a log file before you started the run, your log file is now ready to be processed by Advisor Reporter.

Note

If you would like to create a log file containing the last 100 to 2570 ATM Vital Statistics at a 1-second or 10-second sample interval, follow the instructions in the section, “**Saving ATM Quick Trends**” later in this chapter before exiting your Agilent Advisor ATM program.

If you would like to create a log file containing the last 100 WAN Vital Statistics or 50 WAN Channel Statistics (LCNs or DLCIs) at a 1-second sample interval, follow the instructions in the next section, “**Saving WAN Quick Trends**” before exiting your WAN program.

When you are finished saving your data files, proceed to Chapter 6, Using Advisor Reporter.

Saving WAN Quick Trends

Whether or not you configure the Agilent Advisor to create a log file before you start a run, you can always create a Quick Trends log file after the run is stopped. Quick Trends log files contain the last 100 Vital Statistics and 50 Channel Statistics (LCNs or DLCIs) at 1-second sample intervals and can be effective in troubleshooting network problems when used in conjunction with the decode and event trigger capabilities of the Agilent Advisor.

To create a Quick Trends file after you stop the run, perform the following:

- 1: From the **File** menu select **Save**, or press **Ctrl+S**
- 2: You will be prompted to enter a filename. The path and filename you select should be different from any configuration files or previously logged data files to insure that you do not overwrite any data.
- 3: Make sure you check the **Configuration** and one or more Advisor Reporter compatible statistical measurement. Otherwise, Advisor Reporter will not be able to process the file !!!
- 4: Check the **Decode (or Frame) Data** box ONLY if you need to save the actual frame data for further troubleshooting or reference. Advisor Reporter does not use the Decode Data for reports, and saving it does create a much larger file, up to several megabytes in size.

Now proceed to Chapter 6, Using Advisor Reporter.

Saving ATM Quick Trends

Whether or not you configure the Agilent Advisor to create a log file before you start a run, you can always create a Quick Trends log file after the run is stopped. On ATM networks using a T1 or E1 interface, the last 100 Vital Statistics can be saved at 1-second sample intervals. On ATM networks using DS3, E3, or OC-3c interface, the last 2570 Vital Statistics samples can be saved at either 1-second or 10-second sample intervals.

To configure DS3, E3, or OC-3c Buffer Logging before you start the run, perform the following:

- 1: To access the Log configuration page, press **F10** or click the Config Icon to display the configuration pages, then click on the **Log** tab to display the Log configuration page.
- 2: Set the **Buffer Logging Interval** to either **1 second** or **10 seconds**.
- 3: Set the **Buffer Logging Mode** to **Continuous** or **Stop at end of period**, depending on your needs.

To create a Quick Trends file after you stop the run, perform the following:

- 1: From the **File** menu select **Save** or press **Ctrl+S**
- 2: You will be prompted to enter a filename. The path and filename you select should be different from any configuration files or previously logged data files to insure that you do not overwrite any data.
- 3: Make sure you check the **Configuration** and **Statistical Data** boxes in the **Save Options** section. Otherwise, Advisor Reporter will not be able to process the file !!!
- 4: Check the **Frame Data** box ONLY if you need to save the actual frame data for further troubleshooting or reference. Advisor Reporter does not use the Frame Data for reports, and saving it does create a much larger file, up to several megabytes in size.

Now proceed to Chapter 6, Using Advisor Reporter.

...

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 - Three Ways to View Network Statistics 6-2
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- Running AutoReport or AutoChart 6-4
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Using Advisor Reporter

Overview

Before using Advisor Reporter the first time, you should take a moment to familiarize yourself with its basic capabilities.

Three Ways to View Network Statistics

Advisor Reporter provides three distinct ways of viewing network statistics, each of which is described briefly below:

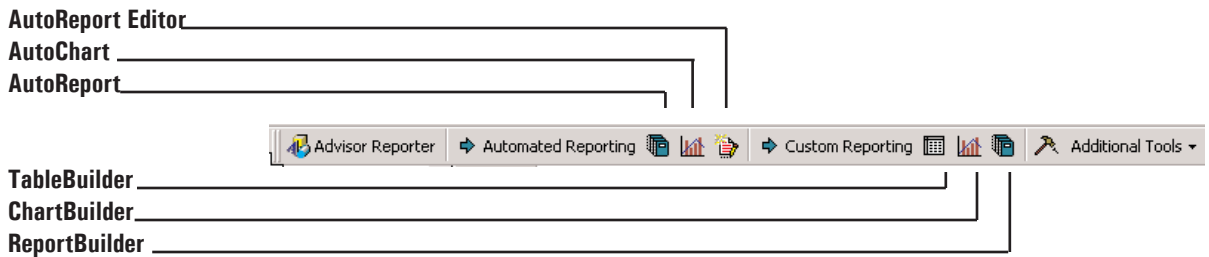
Tables are created in an Excel workbook format, giving you a tabular view of network statistics at regular sample intervals. Statistics for each measurement are grouped into on one or more tabbed worksheets within a single workbook file for a more organized appearance.

Charts are created in an Excel chart format, giving you full-page charts based on data in the worksheet tables. Each chart appears on its own tabbed page within the same workbook file as the table to which it is linked.

Reports are created in a Word document format, giving you fully-formatted reports based on the data in the worksheet tables. Although the reports are created using table data and chart formats from Excel, the completed reports are standard Word documents that can be edited and distributed just like any other document. Each report is built-to-order based on your chart selections, and includes a cover page and table of contents, inline statistics summaries and glossary definitions for each measurement, and a wide range of embedded charts.

Two Modes of Operation

Advisor Reporter offers two distinct modes of operation, **Custom** and **Automated**. Both modes allow you to create the same tables, charts, and reports, so you will find yourself using a combination of the two in your work.



Automated Reporting

Automated Reporting, as its name implies, produces tables, charts, and reports in a highly automated manner. All you have to do is select a datafile, decide on the measurements and timeframes you want to report on, select an AutoReport Profile (a default profile is included) and watch as Advisor Reporter produces your report.

The **AutoReport** and **AutoChart** icons in the **Automated Reporting** section of the Advisor Reporter toolbar work to build automated reports and charts, respectively.

Automated Reporting is so easy to use because of AutoReport Profiles. These profiles contain information about all aspects of the report, including chart selections, report text, plotting options, and more. Creating an AutoReport Profile is just as easy as running one. The graphical AutoReport Editor lets you point-and-click through the entire process. Each AutoReport Profile is stored on disk in its own .arp file, so they are easy to backup and share with others.

Another feature of Automated Reporting is its ability to process up to six datafiles at the same time for batch operation. All datafiles are processed with the same AutoReport Profile, but appear in individual report files.

Custom Reporting

Custom Reporting offers the same look-and-feel as Automated Reporting, but allows you to configure all aspects the table, chart, or report generation process as you go, without the use of profiles.

The **TableBuilder**, **ChartBuilder**, and **ReportBuilder** icons in the **Custom Reporting** section of the Advisor Reporter toolbar work to build custom tables, charts, and reports, respectively.



AutoReport
AutoChart

Note

Running AutoReport or AutoChart

While **AutoReport** builds report documents in Word and **AutoChart** builds charts in Excel, they are controlled exactly the same way.

When you select **AutoReport**, Advisor Reporter will load Word if you do not already have it running on your system. Although Advisor Reporter creates its own documents in Word, it is recommended that you save and optionally close any open Word documents before continuing.

Step 1: Select One or More Statistics Datafiles

You can process up to six files at a time using Automated Reporting. Press the Add file to list button to fill one or more of the six filename fields with a statistics datafile.

Agilent Advisor Reporter

AutoReport Builder

1

Select one or more statistics files

1:

2:

3:

4:

5:

6:

Add file to list

2

Select an AutoReport configuration

Select AutoReport from file

Description: ** Default AutoReport **

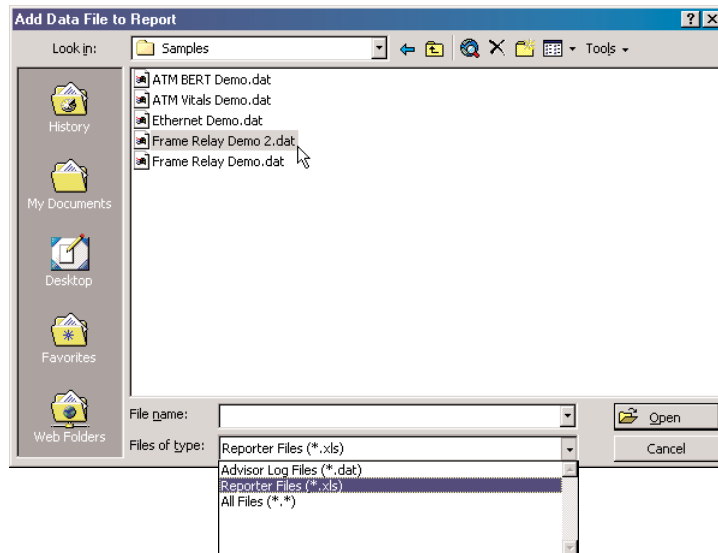
Output to: Display Only

3

GO!

Cancel

- 1: Upon pressing the **Add File to List** button you will be prompted to **Add Data File to Report**. Locate a statistics log file created with the Advisor and press **ENTER** to continue. The default file filter displays only unprocessed Advisor log files, which are the files you created with the Agilent Advisor. You can also add processed Reporter files, which are files already in Advisor Reporter table format, to save the time of recreating them. To view these files, just change the file filter to list **Reporter Files**.



- 2: If the file you selected is unprocessed, you will now be prompted to select a name to save the Reporter file as. Accept the default or type in a new name, then press **ENTER** to continue.

Advisor Reporter never writes over your original source file; it always creates a new one. By default, Advisor Reporter will save the new table in the same directory and with the same name as the input file, but with a .xls file extension that identifies it as an Advisor Reporter file in Excel format.

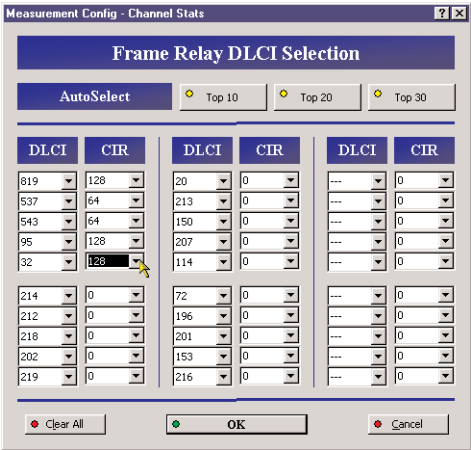
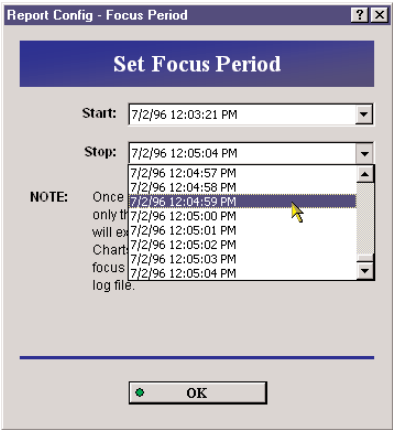
- 3: WAN and ATM datafiles files created with an Advisor Reporter-compatible built-in program can be processed in multiple formats. If your input file is one of these, you will be prompted with an auto-detection verification screen, asking which way you would like to process the file.

- 4: A panel similar to the one below will appear on screen. First, select the measurements you want to have tables built for. Make sure to select them in the desired order for them to appear in reports documents you may create at a later time.

- 5: Next, edit any of the options in the **Select configuration options** section.

Focus Period allows you to zoom in on a specific time range by letting you choose from a list a valid start and stop times found in the Advisor datafile.

Virtual Circuits lets you specify up to 30 Frame Relay DLCIs, X.25 LCNs or ATM VP.VCs to include in your report. Frame Relay configurations containing the Channel Stats measurement also allow you to enter a CIR value for each DLCI. The default values are always “0”, representing that no CIR exists and to substitute the actual line speed for CIR-related statistics. The CIR can not be detected on the link by the Agilent Advisor and must be obtained from your Frame Relay service provider.



After you have completed the **AutoReport** or **AutoChart** panel, press **OK** to return to the original **AutoReport Builder** or **AutoChart Builder** panel. You can continue adding files to the list until all six slots are filled. To remove a file from the list, press the **Remove last file** button.

Step 2: Select an AutoReport Configuration

If you leave this section of the screen alone, a default set of built-in charts and configuration information will be used to create your charts or report documents. If you have created a custom AutoReport Profile, and would like to use it, press the **Select AutoReport from file** button to load it. Now locate or select from the list of available AutoReport Profiles (.arp files).

Regardless of whether you accept the default AutoReport Profile or use your own, you can override the output settings to suit your needs. Please note that if you are creating a report document, the Printer Only option will still display the report in Word.

Step 3: Go!



After you have selected which files to include, which profile to use, and where to send the output, press the **Go!** button and Advisor Reporter will start processing.

If you are creating charts in Excel, Advisor Reporter will update your display as each chart is created. Please be patient. If you need to abort the process press the **ESCAPE** key. If this does not work the first time, wait a few seconds and try again. If you do successfully stop processing, the last chart generated will usually be misformatted and should be deleted and recreated.

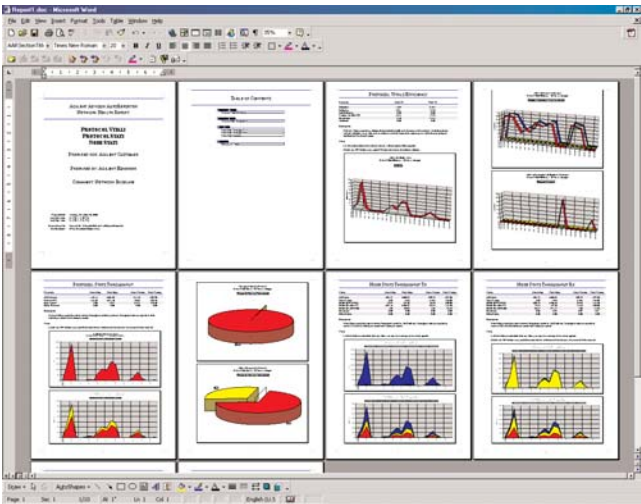
If you are creating report documents in Word, while your report is being built, it will be displayed in a thumbnail view on screen. When completed, Word will be returned to a normal page layout view, and you will be returned to Excel. If you need to abort the process, switch to Excel while the report is running, then follow the same procedures as described in the previous paragraph.

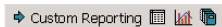
CAUTION

IMPORTANT: While Advisor Reporter is building a report it needs total control of your computer to insure the proper creation of the report. A mouse-click in the wrong place while the report is being built could cause an error or cause the report to be misformatted.

Note

Reports are automatically saved when they are completed with a default name of **Reportx.doc**, where “x” is the order in which the file was processed. Advisor Reporter automatically overwrites these files every time it runs, so you should save reports with new names if you would like to store them permanently.



A toolbar icon for Custom Reporting, featuring a small grid and a bar chart.

TableBuilder

Running TableBuilder

TableBuilder is used to quickly create Excel tables from an Agilent Advisor datafile. It is useful when you would like to preview or edit statistics without having to wait for charts or reports to be built like in Automated Mode. And because **TableBuilder** does not rely on AutoReport Profiles, you can manually configure all table formatting options as you go.

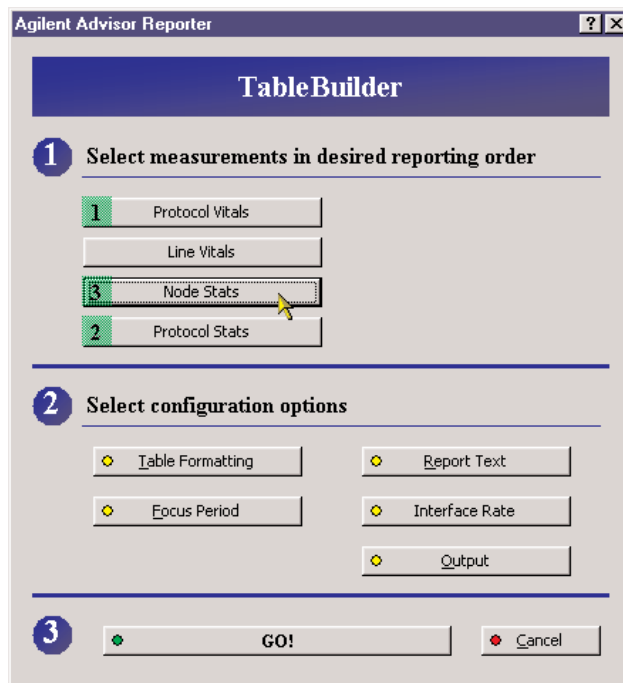
Using **TableBuilder** is very similar to Automated Reporting, with just a few variations. Familiarize yourself with previous section, **Running AutoReport or AutoChart**, before proceeding.

Step 1: Select a Statistics Datafile

- 1: Upon selecting the **TableBuilder** icon in the Advisor Reporter toolbar you will be prompted to **Select a Data File to Process**. Locate a statistics datafile created with the Agilent Advisor and press **ENTER** to continue.
- 2: Next you will be prompted to select or confirm an output filename. Accept the default or type in a new name, then press **ENTER** to continue.
- 3: If your input file was created with an Advisor Reporter-compatible built-in WAN or ATM program, an auto-detection verification screen will appear next, asking which way you would like to process the file. Configure the panel and press the **Continue** button.

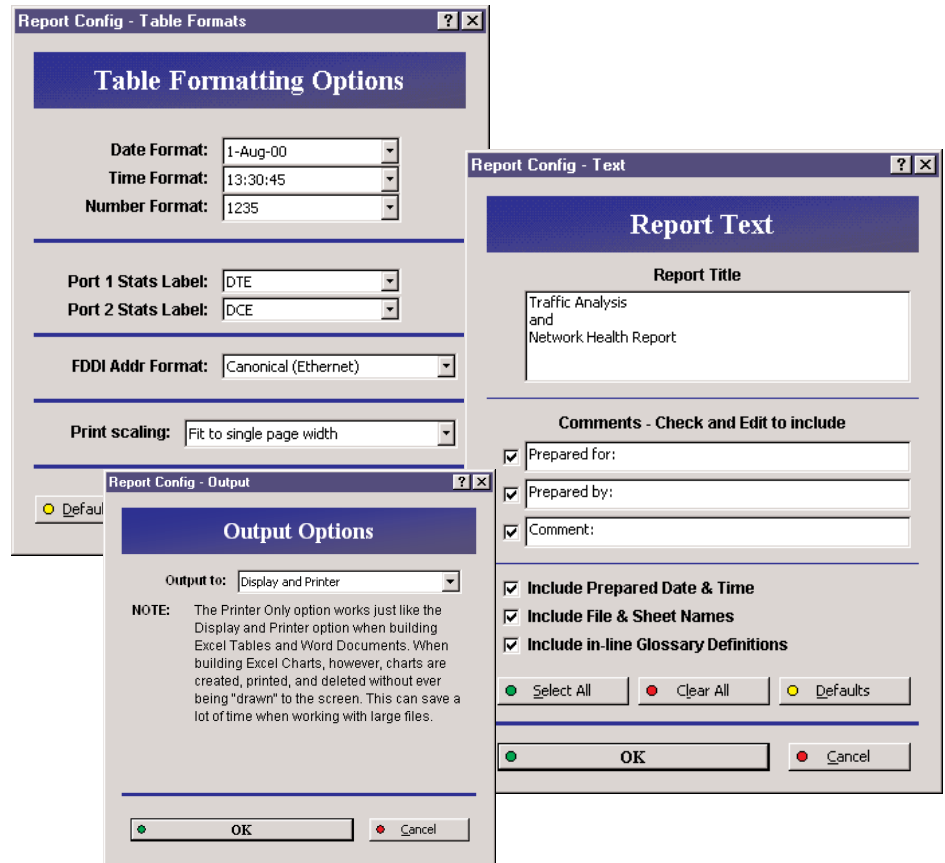
Step 2: Select and Configure Measurements

You will now be presented with a panel that looks similar to the following:



- 1: First, select the measurements you want to have tables built for. Make sure to select them in the desired order for them to appear in future report documents you may create at a later time.
- 2: Next, edit any of buttons in the **Select configuration options** section of the panel. The **Focus Period** and **Virtual Circuit** buttons were described in the **AutoReport** section a few pages back. Descriptions and illustrations of the other three configuration option panels are as follows:

Table Formatting allows you to select Date, Time, and Number formats based on the International Settings of the Windows Control Panel. This panel also allows you to set “names” for the 2 ports represented in WAN and ATM stats. For example, an HDLC report might use DTE/DCE, while one for ATM uses Port 1/Port 2. You can select from the list or type your own.



Report Text lets you select and edit text that will appear in headers and footers of printed tables, as well as on the cover page of report documents. You can also choose to include glossary explanations for each statistic in your reports.

Output lets you select from either display or printer output options.

Note

If you will be using an output to printer option, you should experiment with disabling any local print spoolers to speed up the overall process.

- 3: After configuring the **TableBuilder** panel, press the **Go!** button and Advisor Reporter will start processing. The status bar at the bottom of the Excel windows keeps you informed on the progress of the table building process. If you need to abort the process press the **ESCAPE** key. If the **ESCAPE** key does not work the first time, wait a few seconds and try again.



Running ChartBuilder or ReportBuilder

While **ChartBuilder** creates charts in Excel and **ReportBuilder** creates report documents in Word, they are controlled exactly the same way.

Note

When you select **ReportBuilder**, Advisor Reporter will load Word if you do not already have it running on your system. Although Advisor Reporter creates its own documents in Word, it is recommended that you save and optionally close any open Word documents before continuing.

With **ChartBuilder** and **ReportBuilder**, you have full control over what is included in your finished charts and reports. Because they do not rely on AutoReport Profiles, you can manually configure all chart selection and formatting options as you go.

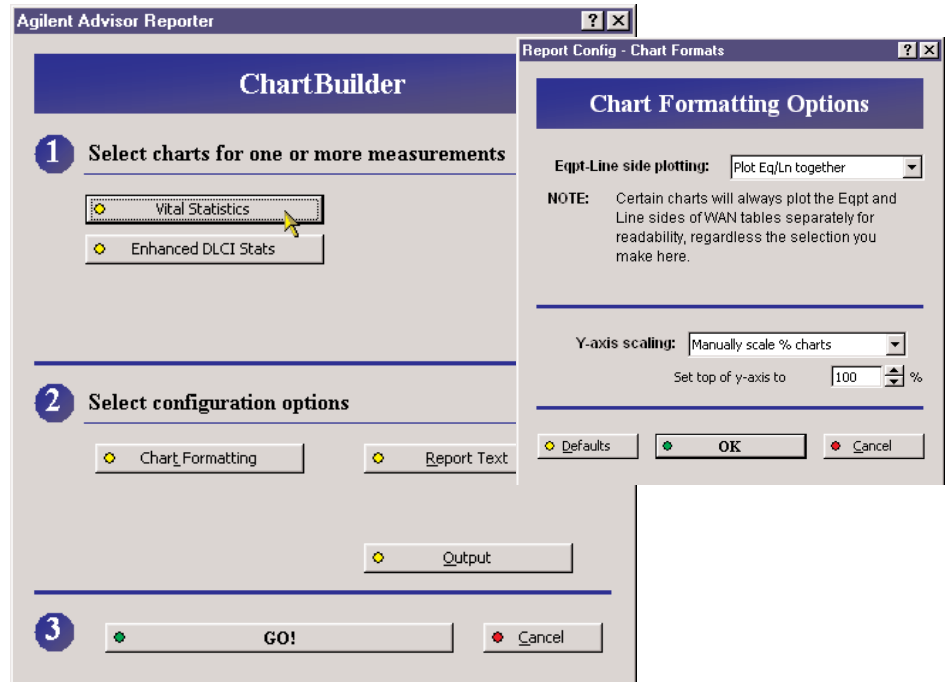
Both tools built from the active on-screen Advisor Reporter workbook. If an Advisor Reporter-created workbook is not active, nothing will happen when you select one of these tools.

Step 2: Selecting Charts to Include

- 1: Upon selecting either the **ChartBuilder** or **ReportBuilder** icons in the Advisor Reporter toolbar you will be presented with a panel similar to the one on the following page.
- 2: Charts are grouped by measurement, and can be configured by pressing a measurement button and selecting the desired charts.

CAUTION

IMPORTANT: Think before you click when selecting charts. Selecting too many charts can quickly add up to an unmanageable number of charts in a single workbook or report document. This is especially important with **Channel Stats - Single VC per Chart** selections in particular, where each chart selection is multiplied by the number of selected virtual circuits. Consider dividing large projects into a series of smaller documents.



- 3: Next, edit any of buttons in the **Select configuration options** section of the panel. The **Output** and **Report Text** buttons were described in the **TableBuilder** section a few pages back.

Chart Formatting allows you to select how the 2 ports represented in WAN and ATM stats are to be plotted. You can plot them together in a single chart (when appropriate), as separate charts, or just one port. You can also set Y-axis scaling for utilization-type charts. **Automatic** scaling sets the top of the axis slightly higher than the highest data point. **Manual** scaling lets you to set the top of the axis to a specific value.

Note

While Automatic scaling enhances the details of charts with low utilization values, Manual scaling provides more consistency when comparing different charts to each other.

- 4: After configuring the **ChartBuilder** the **ReportBuilder** panel, press the **Go!** button and Advisor Reporter will start processing. If you need to abort the process press the **ESCAPE** key. If the **ESCAPE** key does not work the first time, wait a few seconds and try again.



Creating AutoReport Profiles with the AutoReport Profile Editor

Creating a custom AutoReport Profile is very easy to do by following these simple guidelines:

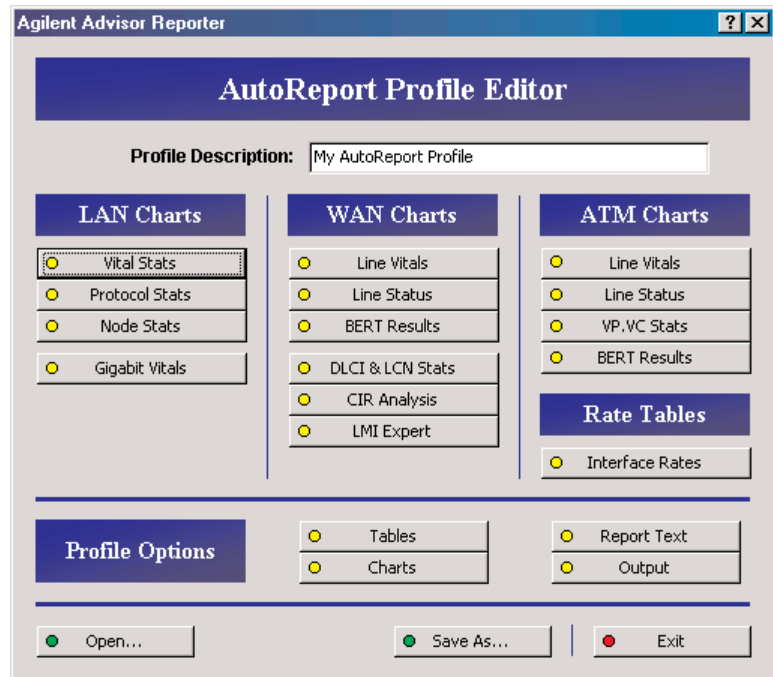
- 1: Upon selecting the **AutoEdit** icon in the Advisor Reporter toolbar you will be presented with the **AutoReport Profile Editor** panel on the following page.
- 2: File management is simple. AutoReport Profiles are stored on disk as **.arp** files. A default folder for storing profiles is located within the Advisor Reporter program directory named **Profiles**, but you can actually store profiles anywhere you want. One profile named **Standard.arp** is supplied as a potentially useful template when creating your own profiles. It is a copy of the default built-in profile Advisor Reporter uses when you run **AutoReport** or **AutoChart**.

To **modify** an existing profile, press the **Open** button to load it for editing.

To **create** a new profile, simply begin editing.

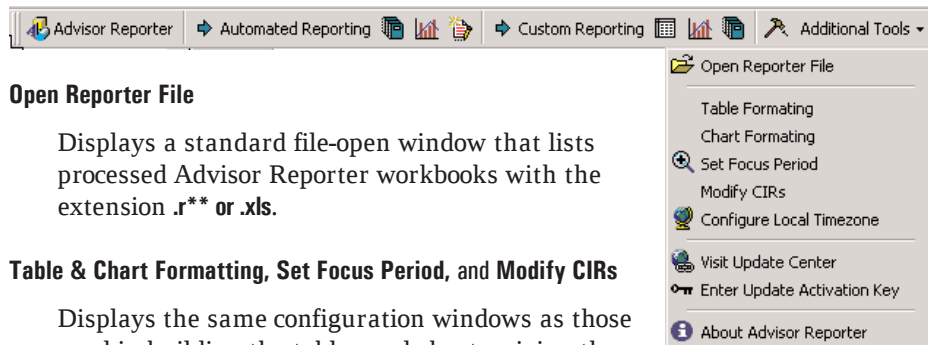
To **save** a profile, press either the **Save** or **Save As** button.

- 3: Configure each of the measurement chart selections and formatting options you would like to include in this profile by pressing the appropriate buttons. By default, no charts are selected, so you will have select every chart for every type of measurement that you would like built with this profile.
- 4: Fill in the **Description** field with a comment that will help identify this profile when you use or edit it in the future.



Using Advisor Reporter's Additional Tools

Clicking the Additional Tools button on the Advisor Reporter toolbar will display a drop-down menu of selections. Below is a brief description of each.



Open Reporter File

Displays a standard file-open window that lists processed Advisor Reporter workbooks with the extension **.r**** or **.xls**.

Table & Chart Formatting, Set Focus Period, and Modify CIRs

Displays the same configuration windows as those used in building the tables and charts, giving the opportunity to change certain configuration settings after tables and/or charts are already built. **Table Formatting** changes affect all tables in the active workbook. **Chart Formatting** changes affect only selected charts in the active workbook.

Configure Local Timezone

Displays a configuration panel that allows you to synchronize timestamps displayed in Advisor Reporter with the Agilent Advisor that collected the original data. This synchronization is only required with certain versions of the Agilent Advisor ATM and WAN software. It is always a good idea to visually confirm that Advisor Reporter timestamps make sense.

Visit Update Center and Enter Update Activation Key

Advisor Reporter updates occur with almost every update of Agilent Advisor software. If you have an Internet Browser and Internet Connection active, this feature will take you to the Advisor Reporter Update Center for the latest downloads. Most web updates will require that you obtain and enter an Update Activation Key in order to make them work. These keys are available as part of an annual subscription program.

About Advisor Reporter

Displays revision, license and copyright information.

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Appendix A - Chart Selections

LAN Charts - Protocol / Line Vitals

LAN Vital Stats

Efficiency

	Ribbon	Area	Pie
Network Utilization (%)	☐		
Network Errors (%)	☐		
Broadcast / Multicast Frms (%)	☐		
Protocol Utilization (%)	☐	☐	☐
Protocol Frame Throughput (fps)	☐	☐	☐

Network Vitals

	Details	Exceptions
Throughput (kbps)	☐	☐
Frame Throughput	☐	☐
Error Summary	☐	☐
Broadcasts & Multicasts	☐	☐
FDDI Token Rotation Time	☐	☐

Protocol Vitals

	Details	Exceptions
Throughput (kbps)	☐	☐
Packet Throughput	☐	☐
Bytes per Packet	☐	☐
Parameters Summary	☐	☐
Overhead Summary	☐	☐

Protocol Selection

☒ IP	☒ AppleTalk	☒ OSI
☒ Novell	☒ Banyan	☒ DECnet

Clear All

OK

LAN Charts - Protocol Stats

LAN Protocol Stats

Ribbon

Area

Pie

Column

General	Utilization %	☐	☐	☐	☐
	Throughput (kbps)	☐	☐	☐	☐
	Frame Throughput (fps)	☐	☐	☐	☐
	Average Frame Length	☐	☐	☐	☐
	DLL Errors	☐	☐	☐	☐
Matrix	Frame Size Distribution	☐ Column	☐ Relative %		

Clear All

OK

LAN Charts - MAC Node Stats

?

×

LAN Node Stats

Ribbon

Area

Column

Relative %

General	Utilization %	☐	☐	☐	
	Throughput (kbps)	☐	☐	☐	☐
	Frame Throughput (fps)	☐	☐	☐	☐
	Errors	☐	☐	☐	
	Broadcasts / Multicasts	☐	☐	☐	
TR	Source Route Broadcasts	☐	☐	☐	
	Source Route Throughput (fps)	☐	☐	☐	☐
FDDI	SMT Utilization (kbps)	☐	☐	☐	
	SMT Frame Throughput (fps)	☐	☐	☐	☐
	E Bit Frms	☐	☐	☐	
	Violation Frms	☐	☐	☐	
	Bad FCS Frms	☐	☐	☐	
	Length Error Frms	☐	☐	☐	

LAN Charts - Gigabit Vitals (Undercradle)

Chart Selection [?] [X]

Gigabit Vitals (Undercradle)

General Stats	Efficiency %
☐ Frames per second	☐ Good frames (%)
☐ Bytes per frame	☐ Errored frames (%)
	☐ Utilization and Errors (%)
	☐ Broadcast & Multicasts (%)
Line Utilization %	Counters
☐ Minimum, average & maximum	☐ FCS Errors
☐ Average only	☐ XOn / XOff
Throughput kbps	☐ Broadcasts & Multicasts
☐ Minimum, average & maximum	
☐ Average only	

[Clear All] [OK] [Cancel]

ATM Charts - Line Vitals

Chart Selection

ATM Vitals

General Stats

☐ Busy cells per second

☐ Busy and idle cell profile

Utilization and Throughput

☐ Line Utilization %

☐ Throughput kbps

Cell HEC Errors

☐ Ribbon

☐ Stacked area

Interface Errors

☐ Ribbon

☐ Stacked area

Efficiency %

☐ Good busy cells

☐ Errored busy cells

☐ Utilization and Errors

Custom Counters

☐ Ribbon

☐ Stacked area

Select

Special Charts

☐ LAN Protocol Distribution

☐ IFMP Packet Distribution

Clear All

OK

Cancel

ATM Charts - Line Status

Chart Selection

Line Status

Ribbon

Area

Pie

General	Signal Summary	☐	☐	☐
BRI-U	EOC Report	☐	☐	☐
DS3	FEAC Messages	☐	☐	☐
OC-3c	FEAC Messages	☐	☐	☐

Clear All

OK

ATM Charts - VP.VC Stats

Chart Selection

ATM VP.VC Stats (Single VP.VC per Chart)

General Stats

☐ Busy cells per second

Line Utilization %

☐ Ave-Max☐ Average only

Throughput kbps

☐ Ave-Max☐ Average only

Efficiency %

☐ HEC Errors☐ CLP Bit Set

Cell Counts

☐ HEC Errors☐ CLP Bit Set

Cross-Referenced Stats (Multiple VP.VCs per Chart)

Line Utilization %

☐ Ribbon☐ Pie☐ Area☐ Column

Throughput kbps

☐ Ribbon☐ Pie☐ Area☐ Column

HEC Errors %

☐ Ribbon☐ Pie☐ Area☐ Column

Busy cells per second

☐ Ribbon☐ Pie☐ Area☐ Column

VP.VC Selection

Clear All

OK

Cancel

Chart Selection

VP.VC Selection

VP.VCs to include

☐ Top 5

☐ Top 10

☒ User-defined

☐ 0.63

☐ 12.54

☐ 12.64

☐ 0.64

☐ 12.55

☐ 155.300

☐ 0.65

☐ 12.56

☐ 155.301

☐ 10.100

☐ 12.57

☐ 155.302

☐ 10.101

☐ 12.58

☐ 155.303

☐ 10.102

☐ 12.59

☐ 155.304

☐ 10.103

☐ 12.60

☐ 155.305

☐ 10.104

☐ 12.61

☐ 155.306

☐ 10.105

☐ 12.62

☐ 155.307

☐ 10.106

☐ 12.63

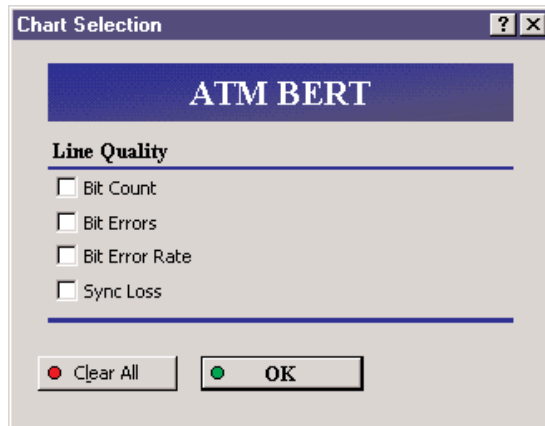
☐ 155.308

☒ Clear All

☐ Defaults

☒ OK

ATM Charts - BERT Results



WAN Charts - Line Vitals

Chart Selection

WAN Line Vitals

General Stats

☐ Frames per second

☐ Bytes per frame

Line Utilization %

☐ Minimum, average & maximum

☐ Average only

Errored User Frames

☐ Ribbon

☐ Stacked area

T1 or E1 Errors

☐ Ribbon

☐ Stacked area

Throughput kbps

☐ Minimum, average & maximum

☐ Average only

Efficiency %

☐ Good user frames

☐ Errored user frames

☐ Utilization and Errors

Custom Counters

☐ Ribbon

☐ Stacked area

Technology Specific Charts

☒ HDLC/SDLC

☒ ISDN

☒ Frame Relay

☒ X.25

☒ PPP

☒ Clear All

☒ OK

Chart Selection [?] [X]

HDLCS/SDLC Protocol

Throughput kbps

☐ Info throughput kbps

Efficiency %

☐ Info & Non-info frames
☐ Info frames
☐ Non-info frames
☐ Info & Non-info bytes
☐ Info bytes
☐ Non-info bytes

Counts

☐ Protocol distribution
☐ Link initializations
☐ Link disconnects

Chart Selection [?] [X]

X.25

Throughput kbps

☐ Data throughput kbps

Efficiency %

☐ Unsuccessful calls
☐ Data packets
☐ Non-data packets
☐ Data bytes
☐ Non-data bytes

Counts

☐ Protocol distribution
☐ Data packets
☐ Calls
☐ Unsuccessful calls
☐ Restarts & Resets

Chart Selection [?] [X]

Frame Relay

Efficiency %

☐ Congestion summary
☐ Forward congestion
☐ Backward congestion
☐ Discard eligibility

Counts

☐ Protocol distribution

Chart Selection [?] [X]

PPP

Counts

☐ Protocol distribution

Chart Selection [?] [X]

ISDN D-Channel

Efficiency %

☐ Unsuccessful calls

Counts: X.25 Packets

☐ Calls
☐ Unsuccessful calls
☐ Restarts & Resets

Counts: Q.931 Signaling

☐ Setups & Disconnects
☐ Unsuccessful calls
☐ Restarts

WAN Charts - Line Status

Chart Selection

Line Status

Ribbon

Area

Pie

General	Signal Summary	☐	☐	☐
BRI-U	EOC Report	☐	☐	☐
DS3	FEAC Messages	☐	☐	☐
OC-3c	FEAC Messages	☐	☐	☐

☐ Clear All

☐ OK

WAN Charts - CIR Statistics

Chart Selection

CIR Stats

Ribbon

Bar

Pie

Trends

CIR Utilization

Summary

Cumulative Bits

Cumulative Frames

Virtual Circuit Selection

16

17

543

95

32

214

212

218

202

219

20

213

150

207

114

72

196

201

153

216

470

97

193

47

80

22

208

45

231

107

Clear All

OK

Cancel

WAN Charts - LMI Expert Statistics

Chart Selection

LMI Expert Stats

Ribbon

Timers

T391 Min-Avg-Max

T392 Min-Avg-Max

General

Down PVCs

Asynch PVC Messages

CLLM Count

Sequence Number Errors

Active DLCIs

Clear All

OK

Cancel

WAN Charts - Channel & Enhanced DLCI Stats

Chart Selection

WAN Channel Stats (Single VC per Chart)

General Stats

☐ Frames per second
☐ Bytes per frame

Line Utilization %

☐ Min-Ave-Max ☐ Average only

Throughput kbps

☐ Min-Ave-Max ☐ Average only

Efficiency %

☐ DE frames
☐ FECN frames
☐ BECN frames
☐ Good user frames
☐ Errored user frames

CIR Utilization %

☐ Min-Ave-Max ☐ Average only

Cross-Referenced Stats (Multiple VCs per Chart)

Line Utilization %

☐ Ribbon ☐ Pie
☐ Area ☐ Column

CIR Utilization %

☐ Ribbon ☐ Pie
☐ Area ☐ Column

Throughput kbps

☐ Ribbon ☐ Pie
☐ Area ☐ Column

Congestion %

☐ Ribbon ☐ Pie
☐ Area ☐ Column

Errored User Frms %

☐ Ribbon ☐ Pie
☐ Area ☐ Column

Virtual Circuit Selection

X25 Packet Length Analysis

☐ Ribbon ☐ Pie
☐ Stacked area ☐ Column

Clear All

OK

A-16

Chart Selection

Virtual Circuit Selection

Virtual circuits to include

☐ Top 5
☐ Top 10
☒ User-defined

☐ 0	☐ 2592	☐ 569
☐ 0	☐ 2595	☐ 600
☐ 20	☐ 3104	☐ 605
☐ 230	☐ 3107	☐ 616
☐ 1056	☐ 3616	☐ 617
☐ 1059	☐ 3619	☐ 618
☐ 1568	☐ 244	☐ 619
☐ 1571	☐ 246	☐ 620
☐ 2080	☐ 247	☐ 900
☐ 2083	☐ 249	☐ 1023

WAN Charts - BERT Results

The image shows a 'Chart Selection' dialog box with a title bar containing a question mark and a close button. The main title 'WAN BERT' is centered at the top. Below it, there are three sections, each with a bolded title and a horizontal line separator. The 'Line Quality' section contains three checkboxes: 'Error free seconds', 'Bit error rate', and 'Block error rate'. The 'G.821 Efficiency' section contains five checkboxes: 'Available time', 'Errored seconds', 'Degraded minutes', 'Severely errored seconds', and 'Unavailable time'. The 'Interface Errors' section contains two checkboxes: 'Ribbon' and 'Stacked Area'. At the bottom, there are two buttons: 'Clear All' with a red dot icon and 'OK' with a green dot icon.

Chart Selection [?] [X]

WAN BERT

Line Quality

- ☐ Error free seconds
- ☐ Bit error rate
- ☐ Block error rate

G.821 Efficiency

- ☐ Available time
- ☐ Errored seconds
- ☐ Degraded minutes
- ☐ Severely errored seconds
- ☐ Unavailable time

Interface Errors

- ☐ Ribbon
- ☐ Stacked Area

[●] Clear All [●] OK