

5 Continuous Captures

Continuous captures are useful when you suspect a problem in your network or application, but cannot predict when the problem will occur. In this case, you can configure agents to capture continuously; then, when the problem does occur, you can download a packet trace for the interval when the problem occurred.

Note—The AppTransaction Xpert Advanced Capabilities license is required to perform continuous captures. For more information, see *Packaging of Product Licenses and AppTransaction Xpert Licenses*.

Workflow Description for Continuous Captures

The most common workflow is to start a continuous capture and leave it running during troubleshooting. This workflow is useful if you cannot predict when the problem will occur.

The following steps summarize this workflow.

- 1) Start the continuous capture and keep it running during troubleshooting. See Procedure 5-1.
- 2) When the problem occurs, preview the continuous capture to verify that the problem has been captured. See Procedure 5-2.
- 3) Download and filter based on the time range and/or IP address of interest. See Procedure 5-3.
- 4) Import the selected data. See *Creating a Transaction Analyzer Model*.
To filter out irrelevant traffic, see *Filtering Traffic*.

Configuring a Continuous Capture

Before starting a continuous capture, you must create an agent list for continuous captures, configure the agents, and specify the buffer size used by each of the captures.

The procedure for configuring continuous captures is similar to the procedure for configuring on-demand captures, and includes the following steps:

- 1) Create an agent list.
For more information, see *Creating a Capture Agent/Appliance List*.
- 2) Edit each agent in the list.
For more information, see *Configuring a Capture Agent*.

Continuous Capture Operations

The continuous capture options are:

- Starting a Continuous Capture from Capture Manager
- Previewing a Continuous Capture
- Downloading a Time Region from a Continuous Capture
- Stopping a Continuous Capture
- Deleting a Continuous Packet Trace

Procedure 5-1 Starting a Continuous Capture from Capture Manager

- 1 Open Capture Manager using one of the following methods:
 - From the AppTransaction Xpert System window, choose File > Capture Manager...
 - From the Transaction Analyzer window, choose Capture > Capture Manager
- 2 Click the Continuous Capture tab.
- 3 Configure the capture agent(s) that will participate in the capture.

Note—The time window of the captured data is determined by the rolling buffer size and the amount of data captured. As the buffer fills, older data gets replaced with newer data. For this reason, someone must view the capture data after the problem occurs and before the data of interest is replaced by newer data. For more information, see Configuring a Continuous Capture.
- 4 Click Start Capture... and specify a capture name.

If restarting a stopped capture, specify the name of the inactive (stopped) capture.
- 5 Let the capture run until you have finished troubleshooting the problem. (It is not necessary to have AppTransaction Xpert running while the continuous capture is active.) Then preview the continuous capture (Procedure 5-2) to ensure that it captured the problem.

End of Procedure 5-1

Procedure 5-2 Previewing a Continuous Capture

- 1 Open Capture Manager using one of the following methods:
 - From the AppTransaction Xpert System window, choose File > Capture Manager...
 - From the Transaction Analyzer window, choose Capture > Capture Manager

- 2 Click the Continuous Capture tab.
- 3 Click Download/Preview..., preview the capture in the Continuous Capture: Preview and Download, and verify that the capture contains the problem of interest.
- 4 Download the time region of interest, as described in Procedure 5-3.

End of Procedure 5-2

Procedure 5-3 Downloading a Time Region from a Continuous Capture

Note—This procedure assumes you have performed Procedure 5-2

- 1 In the Continuous Capture page, select the capture and click Download/Preview...
 - ➡ The Continuous Capture: Preview and Download appears.
- 2 Using the display, filter, zoom, and time-selection controls at the bottom of the window, select the traffic that contains the problem of interest. (For information about these controls, see Table 5-3.)

Note—When you select the traffic filter and time interval, your goal is to include all of the transaction data of interest, and at the same time to exclude as much irrelevant traffic as possible. If you are unsure of the interval, it is better to include irrelevant traffic than to risk excluding relevant traffic. You can filter out traffic later, after you import the selected capture data.

- 3 Click Download.
 - ➡ The capture data is downloaded and saved as a capture (*.appcapture) file in your capture save directory.

You can then import the packet trace. If you need to filter out more traffic, see Filtering Traffic.

End of Procedure 5-3

Procedure 5-4 Stopping a Continuous Capture

- 1 Open Capture Manager using one of the following methods:
 - From the AppTransaction Xpert System window, choose File > Capture Manager...
 - From the Transaction Analyzer window, choose Capture > Capture Manager
- 2 Click the Continuous Capture tab.

- 3 In the Continuous Capture page, click Stop Capture... and select the capture to stop.

End of Procedure 5-4

Procedure 5-5 Deleting a Continuous Packet Trace

- 1 Open Capture Manager using one of the following methods:
 - From the AppTransaction Xpert System window, choose File > Capture Manager...
 - From the Transaction Analyzer window, choose Capture > Capture Manager
- 2 Click the Continuous Capture tab.
- 3 Stop the capture(s), if necessary. See Stopping a Continuous Capture.
- 4 Select the capture(s) in the Capture Manager window.
- 5 Click Delete Capture... and select the capture(s) to delete.
 - ➡ The packet trace is deleted, freeing up disk space reserved for captures.

End of Procedure 5-5

Related Topics

- *Continuous Captures*

Continuous Capture Tabbed Page

You can configure, run, and view continuous captures using the Continuous Capture page in Capture Manager.

Figure 5-1 Capture Manager: Continuous Capture Page

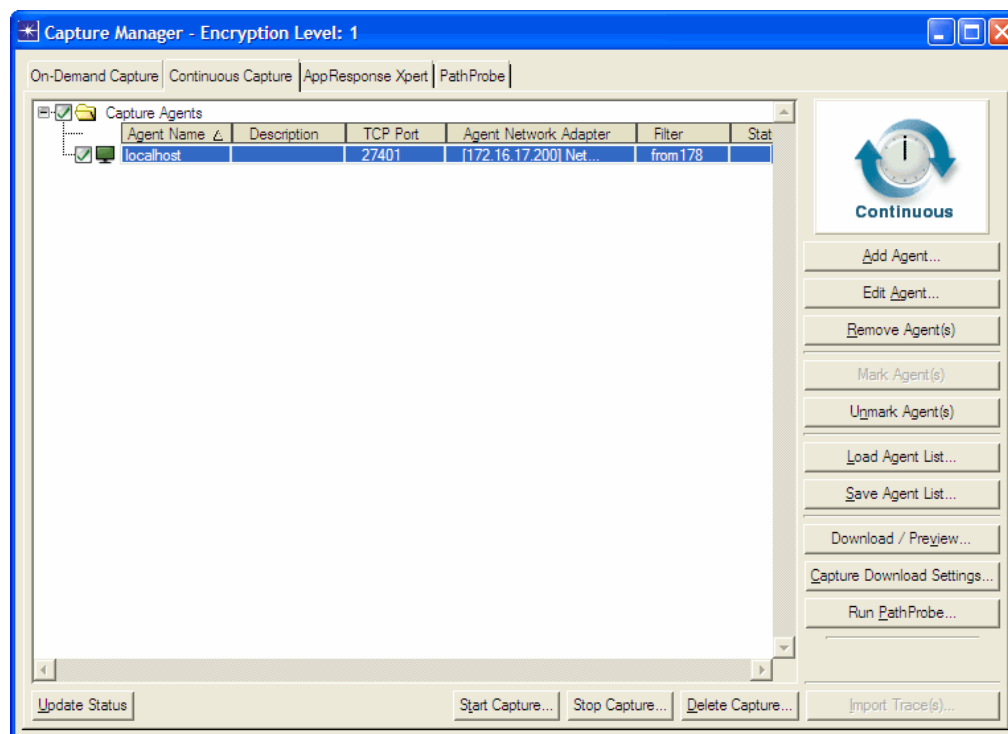


Table 5-1 Capture Manager: Continuous Capture Page

Item	Description
Add Agent...	Add a capture agent to the agent list. For more information, see Creating a Capture Agent/Appliance List .
Capture Download Settings...	Specify the directory, on the local computer, where packet traces are to be stored. Additionally, you can specify the maximum size of downloaded packet trace files. Packet trace files that are larger than the specified size are broken into multiple files when downloaded. The default value is defined using the "Maximum trace file size in MB" preference.
Delete Capture...	Delete a continuous capture and remove the disk space reserved for the capture on the agent machine. For more information, see Deleting a Continuous Packet Trace .
Download / Preview...	Preview a continuous capture and extract relevant data from the selected agent(s). For more information, see Continuous Capture: Preview and Download .
Edit Agent...	Configure the selected agent in the Capture Agents treeview.
Import Trace(s)...	Import the selected packet traces. For more information, see Creating a Transaction Analyzer Model .
Load Agent List...	Load a saved agent list from a file. The name of the agent list displays at the top.
Mark Agent(s)	Enable selected agents so that they capture during the next capture task
Remove Agent(s)	Remove the selected agent(s) from the Capture Agents treeview.
Save Agent List...	Save the current agent list and configuration settings to an agent list (*.agents) file. For more information, see Creating a Capture Agent/Appliance List .

Table 5-1 Capture Manager: Continuous Capture Page (Continued)

Item	Description
Start Capture...	Start a continuous capture on the checked agent(s).
Stop Capture...	Stop a continuous capture that is currently running. For more information, see Stopping a Continuous Capture .
Unmark Agent(s)	Disable the selected agents so they do not capture during the next capture task
Update Status	Display information about each enabled agent, including: the number of active continuous captures, the agent version/build, and the operating system of the host computer.

Related Topics

- [Capture Manager](#)
- [Continuous Captures](#)

Continuous Capture: Preview and Download

From Capture Manager: Continuous Capture Page, click the “Download / Preview...” button to preview a continuous capture and to extract relevant data from the selected agent(s).

The workflow for previewing and downloading traffic data is as follows:

- 1) Specify Traffic to Preview (using 3.9 Capture Agents)—If using the 3.9 capture agents, you can filter the traffic data to preview. By filtering the preview data, you can more easily identify the traffic data of interest and ultimately decrease the amount of data and time required to download.
- 2) Continuous Capture Preview—You can preview traffic data in a Tier Pair Circle and a Tier Pair Table. From the preview window, you can download all capture data. Additionally, if using 3.9 capture agents, you can download selected tier pair capture data and/or re-define the traffic filtering.

Specify Traffic to Preview (using 3.9 Capture Agents)

If using version 3.9 of the capture agents, the preview feature includes the ability to filter the traffic data. You can filter the traffic data by time range, IP addresses, and/or IP conversations.

After clicking the “Download / Preview” button on the Capture Manager: Continuous Capture Page window, the “Specify Traffic To Preview” dialog box appears, as shown in the following figure.

Figure 5-2 “Specify Traffic to Preview” Dialog Box

Include the following time range:

☐ For the past 5 minutes

☐ All time (10:32:46 Aug 28 2010 to 13:12:27 Sep 10 2010)

☒ From 10:32:46 Aug 28 2010 to 13:12:27 Sep 10 2010 Duration: 13 days, 2 hr, 39 min, 40 sec

☐ Include the following IP addresses and/or IP conversations:

IP Address A	Direction	IP Address B

Add Remove

☐ Include the following IP address ranges:

Lower IP Address	Higher IP Address

Add Remove

Preview Cancel

The controls and options in this dialog box are listed in the following table.

Table 5-2 Specify Traffic to Preview Dialog Box

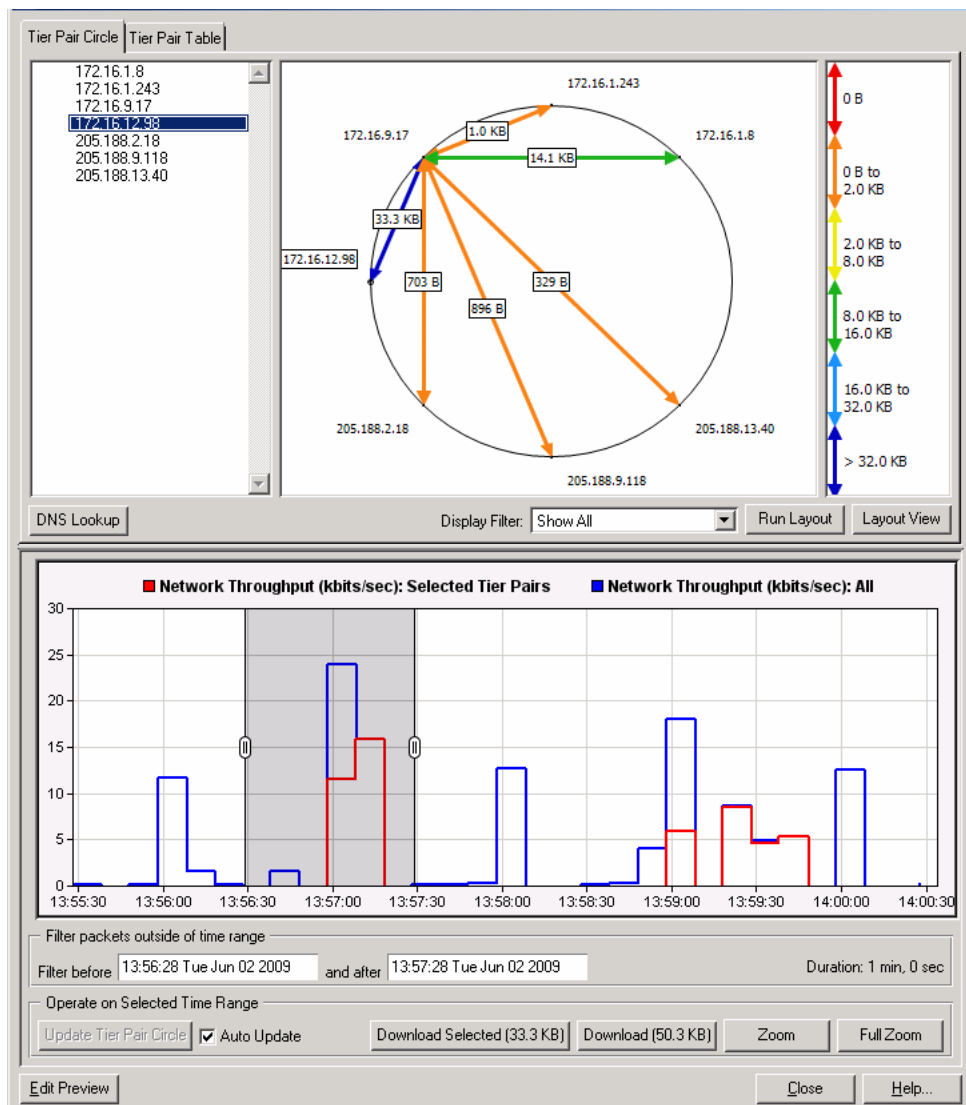
Item	Description
Include the following time range	Specifies the time range to consider for the preview. Select one of the following: <ul style="list-style-type: none"> For the past <i>n</i> minutes—Indicates to include the last <i>n</i> minutes of traffic data in the continuous capture preview. All time—Indicates to include all traffic data in the continuous capture preview. From <i><HH:MM:SS M DD YYYY></i> to <i><HH:MM:SS M DD YYYY></i>—Indicates to include traffic data from the specified time in the continuous capture preview.
Include the following IP Addresses and/or conversations	Specifies the IP addresses and/or IP conversations to consider for the preview. Select the corresponding checkbox and click the associated Add and Remove buttons to specify the IP addresses and/or IP conversations (“IP Address A” and “IP Address B”).
Include the following IP address ranges	Specifies the IP address ranges to consider for the preview. Select the corresponding checkbox and click the associated Add and Remove buttons to specify the IP address ranges (“Lower IP Address” and “Higher IP Address”).
Preview	Displays the traffic data, that complies with the filter criteria, in the Continuous Capture Preview Dialog Box for you to preview and download.

Note—If importing traffic from AppResponse Xpert, the “Specify Traffic to Preview” dialog box includes additional options to further filter the traffic for preview.

Continuous Capture Preview

The “Continuous Capture Preview” window, shown in the following figure, includes the specified traffic data from the selected continuous packet traces. Use this window to zoom in on the data of interest; then download the capture data to create an application capture (*.appcapture) file that contains only the time and traffic containing the problem of interest.

Figure 5-3 Continuous Capture Preview Dialog Box



The controls and options in this dialog box are listed in the following table.

Table 5-3 Continuous Capture Preview Dialog Box

Item	Description
Tier Pair Table	View all tier pairs and the total amount of traffic exchanged by each tier pair.
Tier Pair Circle	View all tier pairs in circle or layout mode, with the traffic ranges of each tier pair. Use the DNS Lookup button to replace IP addresses in the list to DNS names. Use the Display Filter pull-down to filter the traffic. Use the Run Layout and Layout View buttons to change the view to a logical layout.
Network Throughput Graph	Shows network throughput for all tiers. If one or more tier pairs are selected, a second line appears for the selected tier pairs. Initially, the entire time range is selected, as indicated by the gray background. To select a smaller time range, either: <ul style="list-style-type: none"> • drag the handles on the left and right ends of the graph • left click in the graph and drag across the desired time range Right-click in the graph to change the vertical scale.
Filter packets outside of time range	The “Filter before” and “after” fields show the exact start and stop times of the selected part of the Network Throughput graph. You should select a time range that includes the entire problem of interest, while excluding as much irrelevant data as possible.
Operate on Selected Time Range	After selecting a time range, you can perform one of the following operations: <ul style="list-style-type: none"> • Zoom—Zoom in on the selected time range. • Full Zoom—Return to full zoom (the absolute start of the continuous capture to the end). • Download—Download capture data for all tier pairs in the selected time range and create an application capture (*.appcapture) file. The button label displays the size of the download. • Download Selected—Download capture data only for selected tier pairs in the selected time range and create an application capture (*.appcapture) file. The button label displays the size of the download. <p>Note—The “Download Selected” operation is available only for traffic data captured using version 3.9 capture agents.</p> <ul style="list-style-type: none"> • Update Tier Pair Circle/Auto Update—If Auto Update is selected, the Tier Pair Circle and Tier Pair Table update automatically when you change the display filter and selected time range. If Auto Update is not selected, you must update the Tier Pair Circle and Tier Pair Window manually by clicking the “Update Tier Pair Circle” button.
Edit Preview button	Opens the “Specify Traffic to Preview” Dialog Box so that you can re-define the filter criteria for the continuous capture traffic data. Note —The “Edit Preview” button is available only for traffic data captured using version 3.9 capture agents.

Related Topics

- *Continuous Captures*