



# ApplianX Trace Tool User Guide

Version 1.3 – 05/12/2008

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## 1.0 Introduction

The ApplianX Trace Tool is an application, provided by Aculab, to aid the installation and support of the ApplianX system, with the intention to help identify and resolve issues when connecting a DPNSS to Q.Sig Gateway to another piece of equipment. It can capture trace data sent from the ApplianX, decode it, load/save the data, and load in other captured data from syslog events. The utility additionally offers the user a filter option for the call data being investigated, with a warning section alerting the user to any calls that have failed, allowing the operator see any messages not understood by the recipient.

The tool is not intended to be used on large amounts of data over a long period of time, rather, to be used in short time segments when any communication errors can potentially occur.

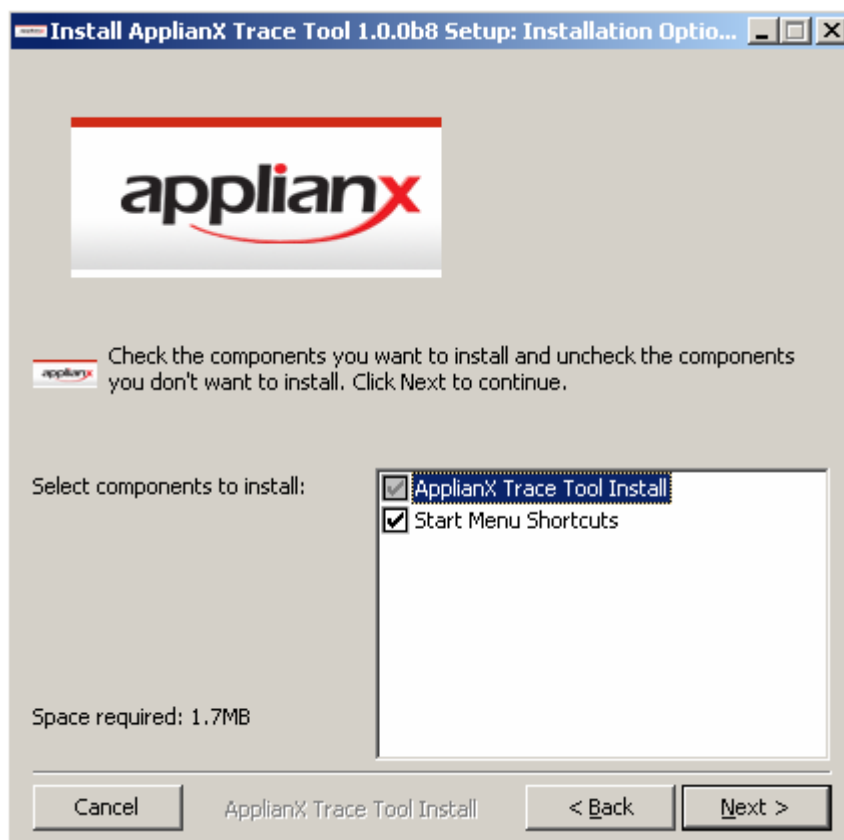
## 1.1 Installation

Download the "Install ApplianX Trace Tool.exe" installer, from

[http://www.applianx.com/reseller/technicalsupport/appliance\\_trace\\_tool.aspx](http://www.applianx.com/reseller/technicalsupport/appliance_trace_tool.aspx)

to a suitable location and double click on the icon to run the installer. Read the terms and conditions of use carefully and if acceptable click "agree" to proceed.

Next to be presented is the options screen



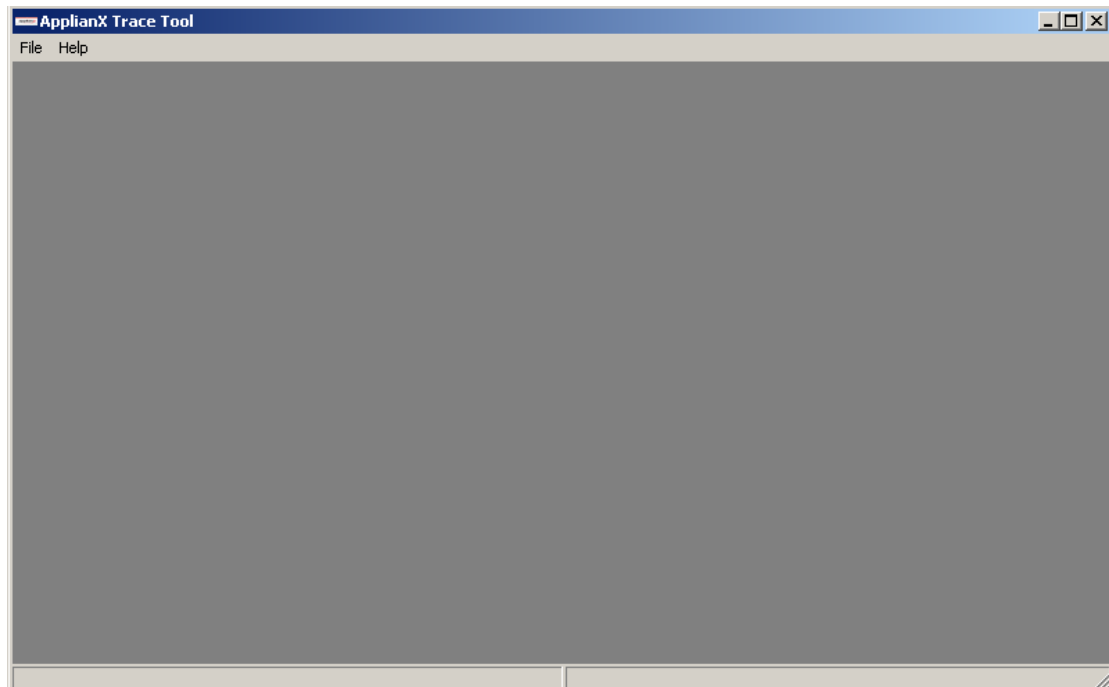
In order to be able to access the utility through the Windows programs menu the "Start Menu Shortcuts" should be left as selected. Next provide a suitable location for installation. By default this will be "C:\Program Files\ApplianX\". The final step will be

the installation. Select install. The utility will then install and the completed message will be presented.



## 1.2 Running the ApplianX Trace Tool

If the start menu shortcuts were installed then the ApplianX group will be present under programs. In here will be the uninstaller and the utility. Select the Trace Tool to open it up. It should appear as below with the status “No Trace Loaded”.



From here there are two methods to load trace into the tool:

1. Load previously captured trace from a file.
2. Capture live trace from an ApplianX Gateway.

### 1.3 Capturing Live Trace from an ApplianX Gateway

After logging into the ApplianX gateway there will be a menu on the left hand side. Under the section “Diagnostics” the “Remote Logging” option can be found.

Diagnostics

→ Remote Logging

Selecting this will bring up the “Remote Logging” page as shown.

### Remote Logging

Enable remote logging ?

☒

Host to receive logs ?

Logging port ?

Submit

Cancel

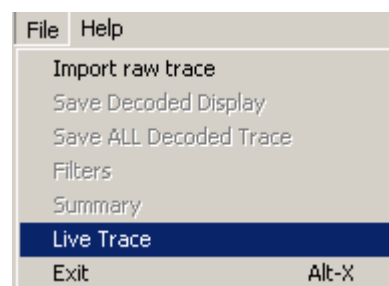
### Log sources

Log Type	Status	
Switch trace	stopped	<div>Start</div>
Trunk 1 protocol trace	stopped	<div>Start</div>
Trunk 2 protocol trace	stopped	<div>Start</div>
Trunk 3 protocol trace	stopped	<div>Start</div>
Trunk 4 protocol trace	stopped	<div>Start</div>

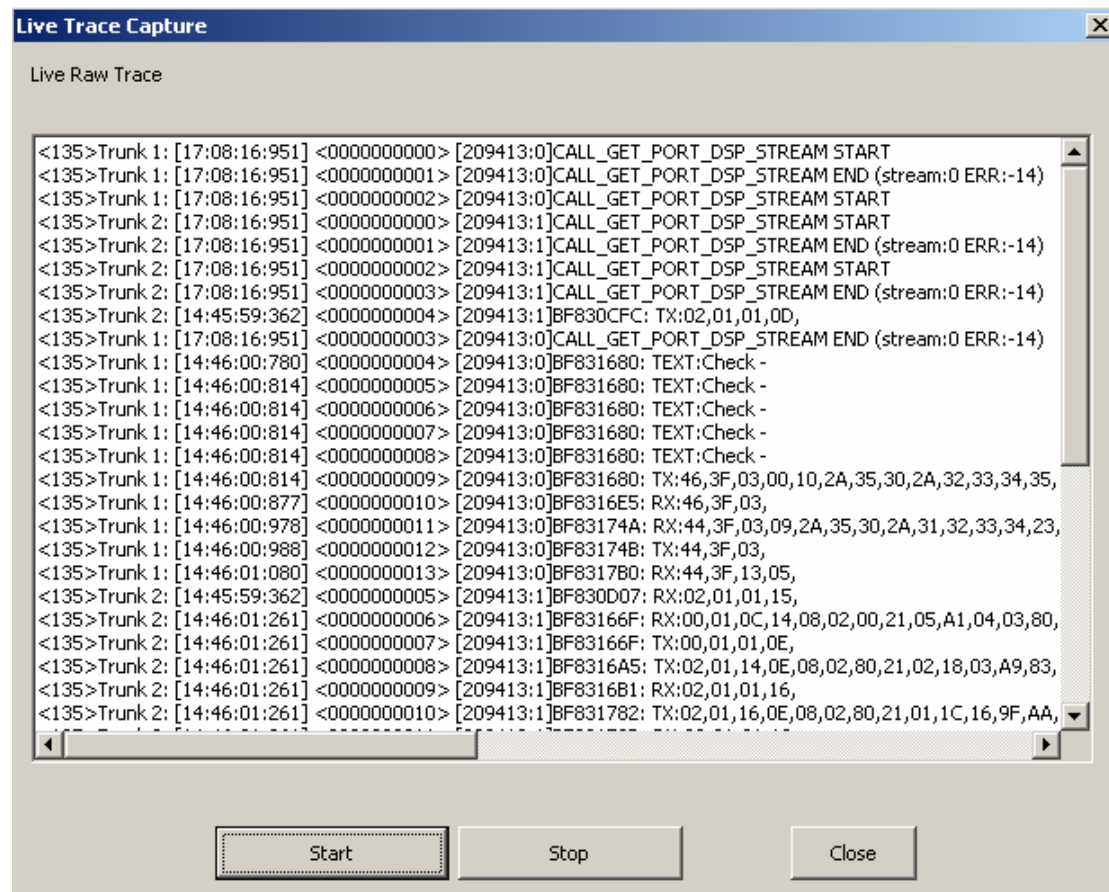
Enter the IP Address of the host running the trace utility into the “Host to receive logs” field and select the tick box to enable remote logging. The logging port should be left at the default value of 514, which is the standard port for syslog. Once entered select submit.

Next select the “start” options for the QSIG and DPNSS ports that are to be monitored.

Returning now to the ApplianX Trace Tool the “Live Trace” option from the file menu should be selected.

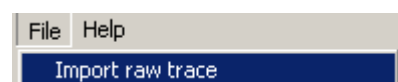


This will bring up a screen that shows that the Trace Tool is ready to capture live trace. Selecting start here will result in lines of raw trace appearing in the window if there is any activity on the selected trunk. It may be necessary to make calls to see this. Now make the call(s) that are to be inspected. When the calls are complete select "Stop" and the Trace Tool will decode the Raw trace. From here filters and sort criteria may be applied to find specific calls of interest (See Filters).



## 1.4 Loading a Trace from an ApplianX Gateway

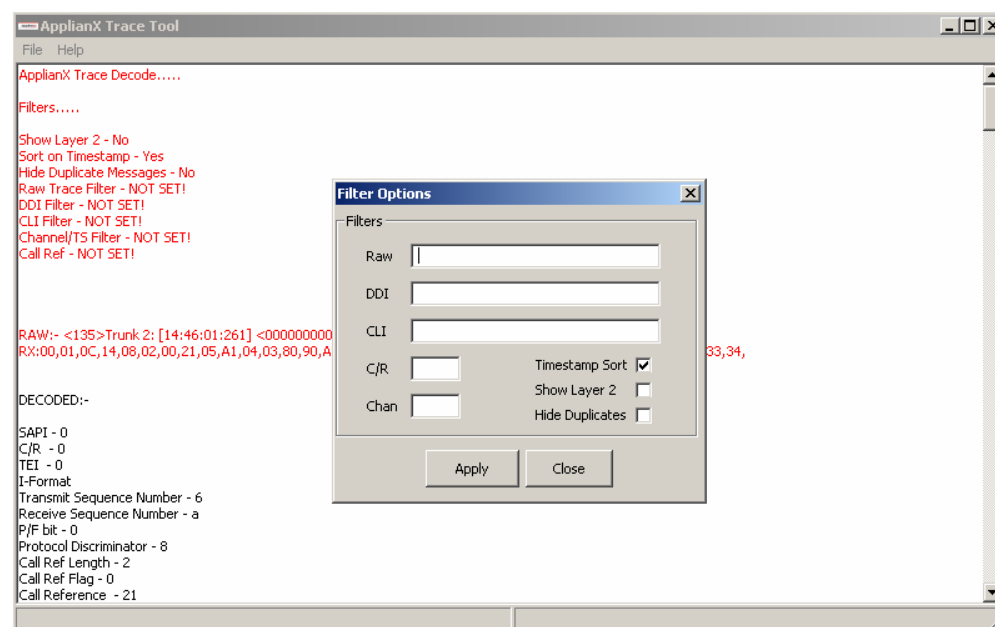
If a third party syslog tool has been used to capture the trace sent from the ApplianX, as set up in section 1.2, then this file may be loaded into the Trace Tool. From the File menu select the "Import raw trace" option.



This will bring up a window so that the file of interest may be selected. Once selected the file will be loaded and then decoded. Progress bars will indicate how long is left. This tool is not intended for huge files. Attempts to use large files will result in long loading, decoding and display times.

## 1.5 Applying Filters

Once the decoded screen is displayed it is possible to apply filters by opening up the filter options from the File menu. Note that this option will only be enabled once there is trace loaded into the application via the live or import options. Note below that the ApplanX decode output shows which filters have been applied when generating that decoded output.



The filter options are

- **Raw** - This is useful when passed a raw file and a line has been identified as maybe being one worthy of further investigation. Entering the timestamp of the line would limit the display to only displaying those lines that matched the set of characters in the un-decoded format.
- **DDI** – If a particular party is being called then all messages relating to calls to that number can be isolated using this filter. Note the DDI must be exact. There are no partial matches so be aware of any PBX number manipulation.
- **CLI** – As with DDI except the party making the call is the basis of the filter.
- **C/R** – Call Reference. Only relevant for ISDN calls. If the Call Reference of the call is known this will help isolate the call for investigation.
- **Chan** – This is the timeslot associated with the call.
- **Timestamp Sort** – This is the default. This uses timestamps in the protocol messages to sort the messages. If not selected the order that the messages arrived will be used which may not be the order they were sent/received on the E1/T1 line.
- **Show Layer 2** – This selects whether Layer 2 messages are shown or not in the decoded display. It is advised to have this turned off to aid reading the trace unless looking for a Layer 2 problem.
- **Hide Duplicates** – For compelled signalling, such as DPNSS, the message will be repeated until acknowledged. This filter hides any messages that are identical to previous ones at layer 3 if no other messages have been found in between.

## 1.6 Saving Decoded Trace to File

To save decoded trace to file there are two options:

1. "Save Decoded Display" – This will save to file what is currently being displayed with the filters on.
2. "Save All Decoded Trace" – This ignores all filters and saves the entire decode to the selected file.

## 1.7 Summary Screen

This screen has two purposes. Firstly there is a window that will show how many calls are contained in the decoded trace. The second is to display any calls that have had compatibility issues. This is where protocol messages have been sent indicating that previous protocol messages have not been understood. Note that this window will not identify all issues and the trace should be examined carefully to look for non-superficial issues. This is simply an aid that can provide a starting point.

