![PacketIQ™ — Intelligent Network & Application Performance Management]

PacketIQ TraceRoute Resolver
Installation and Getting Started Guide

Introduction

The **PacketIQ TraceRoute Resolver (TRR)** is a Windows® application designed to enhance network traceroute results with additional information on Enterprise routing devices including interfaces, link speeds, subnet masks, etc.

The TRR matches traceroute IP addresses for each hop with records from a Network Information file which has been pre-prepared from available sources of data such as a network management system and/or manual compilation.

This information is essential for:
- Troubleshooting network or application performance problems
- Conducting network impact and performance assessments
- Day to day administration of network devices and LAN/WAN links

The TRR Search feature also makes it possible to easily find any of the Network Information from string search results.

TRR results can be saved to a text file in Tab-delimited format or Copy/Pasted into applications such as Microsoft® Excel®.

Installing the TraceRoute Resolver

Download the latest version of the TraceRoute Resolver from this web page:

http://www.packetiq.com/Tools/PacketIQ-TraceRoute-Resolver.aspx

You may wish to read the section of this web page entitled 'Why do I need the TraceRoute Resolver?' to gain insights on the challenges this utility was designed to solve, and submit your email address to be informed of updates.

Install the TraceRoute Resolver by double-clicking the downloaded TraceRouteResolverInstaller.msi file and accepting the installation defaults. The TRR requires the Microsoft 3.5 SP1 Framework, which will also be installed if needed.

Initial Startup

During installation the files 'NetworkInfo.xlsx' and 'NetworkInfo.csv' were included in the program installation directory ('C:\Program Files (x86)\PacketIQ Inc\PacketIQ TraceRoute Resolver' for most Win 7 machines). The 'NetworkInfo.xlsx' serves as an example and template of a typical Network Information Data source file; the 'NetworkInfo.csv' file was derived from the .xlsx file. The TraceRoute Resolver automatically imports the 'NetworkInfo.csv' file upon initial installation.

During the installation a 'Cisco Traceroute Example.txt' file was placed on the user desktop; you can open and copy/paste, or just drag and drop this file onto the TraceRoute Resolver form to see an example of resolving traceroute information, performing searches, and gaining familiarity with the basic options. Once you have created and imported your own Network Information file the Cisco Traceroute Example file will longer be useful and can be deleted.

Creating a Network Information File

You can make a copy of the 'NetworkInfo.xlsx' to serve as a starting point for creating a Network Information file containing the information on the devices in your network. See Section 3 of the User Guide (an icon for the User Guide was placed on your desktop during installation; the source document is located in the installation directory and available from the PacketIQ website) for guidance and further details on properly formatting the data. When you have successfully obtained and formatted the network device data in the .xlsx file, save the file in .csv format (include a date in the filename).

Importing Your Network Information File

To import the Network Information for your network:

1. Click 'Settings' on the TRR menu bar to open the Settings form.
2. Click 'Browse', navigate to and select the .csv file you created, and click 'Open'. The TRR will attempt to import the data.
3. The status message at the bottom of the TRR should indicate 'Successfully imported xxx Network Interface file entries.'
4. If the status message is 'Imported xxx out of xxx entries. Check <Network Information file location> for duplicate IP Address entries.', you may wish to check your data file to eliminate duplicate IP addresses. The TRR will continue to function, but will only import the first of the duplicate IP addresses in the file.
5. Choose the desired Display and Search columns, then click 'Save' on the Settings form to save the settings.

Settings

In the TRR Settings form, the 'Select Columns to Display' settings allow you to select the columns of data imported from the Network Information file to display when resolving traceroutes or doing searches.

The 'Select Columns to Include in Searches' settings allow you to select just those columns you want a search function to include; it usually isn't desirable to search for data in interface speeds, subnet masks, or interface type columns, for example.

Note: If you select a column to include in searches, you must also select that column to display.

Controls

Most of the controls on the TraceRoute Resolver are intuitive, with the following exceptions:

Show ((Same Subnets))
Enabling this option (the default) tells the TRR to do a 'same subnet' look-up when a record cannot be found that matches an IP address in a traceroute hop. If one or more IP addresses are found that belong to the same network subnet, then device and interface information for the first device found is displayed. If more than one device/interface belonging to the same subnet is found, then the total number of matching entries is indicated within an additional set of parenthesis.

The fact that a same-subnet match is being displayed is indicated by displaying the IP address of the *substitute* device and interface surrounded with double parenthesis (( )).

Note: The Show ((Same Subnets)) option only functions if SubNetMask information in IP notation (xxx.xxx.xxx.xxx) format is provided in the Network Information file.

Traceroute Format
The format of the traceroute results data to be processed in the TraceRoute Text Box can be indicated by selecting the appropriate entry from this control.

If the command line isn't or can't be included in the pasted traceroute results text (the TRR looks for 'traceroute' or 'tracert'), the appropriate parsing method can be selected from the 'Traceroute Format' selection control.
The available options are:

- AutoDetect Commandline - Derives the format from the traceroute command (if included in the traceroute text)
- Any IP - Locates and resolves any IP address in the text
- Cisco - Cisco (or similar) formatted traceroute results
- Windows - Windows formatted tracert results

If you paste traceroute data into the TraceRoute Text box and the data doesn't resolve, it may be necessary to select the proper TraceRoute Format.

String Searches
Search strings can include wildcards. An asterisk (*) matches any number of characters; a question mark (?) matches one character.

See the PacketIQ TraceRoute Resolver User Guide for assistance with other TRR options/features.

Contact support@packetiq.com to report bugs or suggest enhancements for future versions; support for this utility is offered on a best effort basis. Please do not contact PacketIQ for assistance exporting data from NMS databases or other sources.