Performance Investigator Analyser Carbide Extension

Introduction

The PIAnalyser Carbide.c++ Extension is used to graph, measure and analyze the performance data collected from a handheld device. The data for the analysis is collected from the device as sampler traces either

- with the PIProfiler tool running on-device, or
- remotely from Carbide.c++, via a TraceViewer connection using the Performance Investigator Wizard.

The data is then saved into a Profiler data (.dat) file and imported to Carbide. Opening the Profiler data file in Carbide.c++ will launch the PIAnalyser, and present graphs and tables that enable performance analysis based on collected data.

Features

PIAnalyser lets you collect, view and analyze performance data on the following:

- CPU
  - Thread load
  - Binary load
  - Function load
  - Function calls
- Memory usage
- Power usage

How to obtain

Install latest PDT.

How to get started

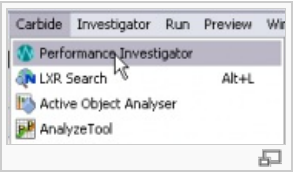
To be able to analyze PIProfiler data, you need capture the data and import it to PIAnalyser.

Performance Investigator Setup for Remote Profiling

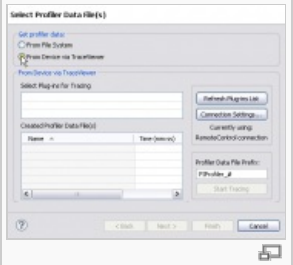
from Carbide with Performance Investigator Import Wizard

Install Nokia Ovi Suite on the PC
Install the latest Nokia Ovi Suite on your PC and launch Carbide.c++ IDE.

Connect a USB cable
Connect a USB cable to the PC and then to the target device.



Start the Performance Investigator Import Wizard
Start the Import Wizard in Carbide.c++ by selecting **Carbide** > **Performance Investigator**



Import data from device by tracing
On the **Select Profiler Data Files** page, select to get profiler data **From Device via TraceViewer**.

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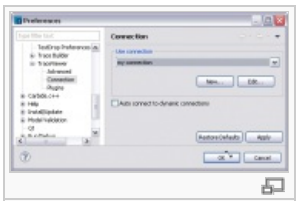
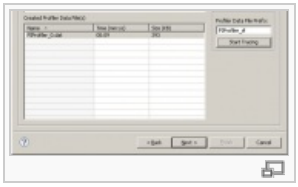


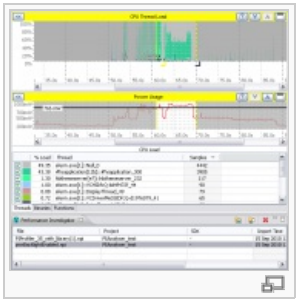
Check connection settings
Before you start tracing, check the connections settings. Select **Connection settings** to open the TraceViewer Connections Setting dialog. After checking and saving the connection settings, click **Refresh Plug-ins List**. If the connection to the target device is working correctly, a list of the available plug-ins appears.

Set plug-ins for tracing and prefix for created file
Select the plug-ins you want to trace from the **Select Plug-ins for Tracing** list. Enter the file prefix to be used for the trace data file.

Run the trace
Click **Start Tracing** to begin and carry out the use case with your application. When you are finished with the use case, click **Stop Tracing**. A new trace file name appears in the **Created Profiler Data Files** list. If you wish you can run another trace. Just enter a new prefix for the second file and change the setting if you wish.

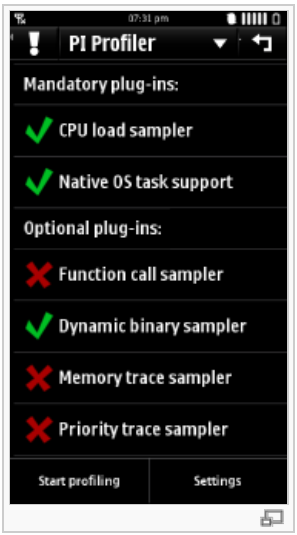


Finish the import
Click **Next** to continue with the import. For detailed instructions, click the question mark icon in the wizard to open the Help.



Open the file for analysis
If you imported only one file, the data will open directly to the PI Analyser view. If you imported several files, they will be listed in the PI view and you can double click on an item to view and analyze it in PI Analyser.

Performance Investigator Setup for On-device Profiling
with PI Profiler



Install PI Profiler
Transfer and install S60_3_1_PIProfiler_v2_x_x.sisx file to the target device.

Setup and Start Profiler
Setup Profiler on the target device and capture application data. See Performance Investigator Profiler *How to get started* for more instructions.

Transfer Profiler Data File to PC
Transfer the profiler data file to the PC by USB, Bluetooth, or serial interface connection.

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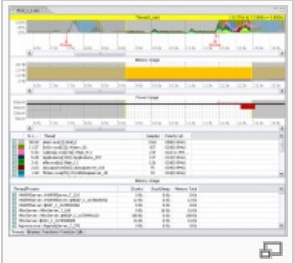
Import Profiler Data File to Analyser

Use the Performance Investigator Import Wizard to import profiler data file into Carbide.c++ for analysis.

1. Start the wizard in Carbide.c++ by selecting **Carbide** > **Performance investigator**
2. On the **Select Profiler Data Files** page, select to get profiler data **From File System**, and continue from there.

Click the question mark icon to view the Help for detailed instructions.



Analyze Performance Data

Analyze the profiled application data within Pi Analyser Carbide.c++ extension.

If you imported only one file, the data will open directly to the PI Analyser view. If you imported several files, they will be listed in the PI view and you can double click on an item to view and analyse it in PI Analyser.

Get to know this tool

For more information on Performance Investigator Analyser and instruction on using the tool, see the Performance Investigator User's Guide available as on-line help in Carbide.c++.

Known issues

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