GenBroker – Statistics Monitor

APPLICATIONS NOTE

April 2010

Description: Guide to tracking GenBroker/GenClient runtime data for applications running in the GENESIS32 system.
OS Requirement: Win 2000, XP Pro, Server 2003, Vista, Server 2008, Windows 7
General Requirement: Basic understanding of OPC communication between OPC servers & clients

Introduction

The **GenStatistics Viewer** provides GenBroker/GenClient runtime data tracking for applications running in the GENESIS32 system. This tool is designed for system integrators, OEMs, and customers interested in doing their own troubleshooting and diagnostics. The GenBroker Data Statistics application gets the runtime statistics in XML format from the instance of GenClient the particular application is using.

GenStatistics Runtime Viewer

To launch the **GenStatistics Viewer** from GraphWorX32, select View → Data Statistics in runtime mode. You will find similar options in other GENESIS32 applications that also launch the Statistics Viewer.

The **ICONICS Statistics Viewer** dialog displays runtime information. This dialog is implemented in the GenClient/ OLExpress DLL library, and it is available throughout GENESIS32 applications. Click the **Refresh** button periodically to update the data.

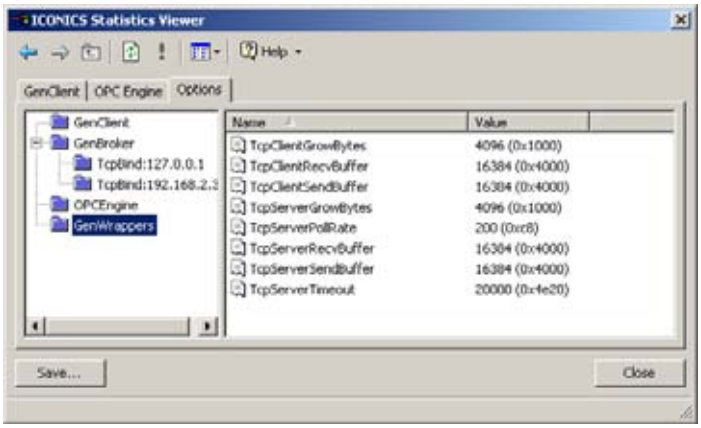

Figure 1 - GenStatistics Runtime View

There are three tabs in the dialog that are displayed in a standard format (similar to Windows Explorer):

GenClient tree: Contains subtrees for each instance of the GenClient object the given application is using. Note that there may be additional GenClient instances for one application. Under the GenClient instances there are points used, sorted into groups by the kind of data the points are accessing. Note there are OPCSecPoints (for OPC DataPoints with security), SecPoints (for security) and RegAppPoints (for registering applications at GenRegistrar).

OPCEngine tree: Aggregates all points requested by the given application and groups them for particular servers (if GenClient communicates with the given server directly via OPC Direct) or by a GenClientWrapper (if GenClient uses a channel to communicate with the given server). The statistics data are then related to the given channel or server type.

Options tree: Contains options as set in the GenBroker Configurator. This is helpful for debugging because it contains the actual GenBroker settings.

Saving the GenStatistics

The Statistics Viewer tracks the runtime activity for each GENESIS32 application and logs the runtime data to an XML log file. To export the runtime statistics data to an XML log file, click the **Save** button. This opens the **Save As** dialog box. Give the log file a name, and then click **Save**.

You can view the exported XML log file in your Web browser, such as Microsoft Internet Explorer. The log file provides a thorough, color-coded report that mimics the expandable tree structure in the GenStatistics Viewer, detailing all activity for the application including the product, its version number, and the date. If you are experiencing problems with any applications, you can e-mail the log file as a detailed report to technical support. Developers can use these reports to identify the source of the problem.

> **NOTE:** It is possible to view the XML file later (offline) for debugging purposes.

Viewing the Exported XML Statistics File

1. To view data statistics outside runtime, Launch the Statistics Viewer by going to Start → Programs → ICONICS Tools → GenStatistics Viewer.
2. This launches the **Open** dialog box, as shown in Error! Reference source not found.. Browse for the Statistics XML log file name, and then click **Open**.
3. The data from the log file are displayed in the Statistics Viewer dialog.