



GENESIS32 - TraceWorX32 Diagnostics for OPC Communications Issues

APPLICATIONS NOTE

August 2004



Description: Quick Start for configuring and running Iconics TraceWorX to find OPC communications issues.

OS Requirement: The operating system required is WinNT/XP/2000/2003.

General Requirement:

TraceWorXs32 provides online diagnostics and tuning of applications running in the GENESIS32 system. TraceWorX32 is designed expressly for systems integrators, OEMs and customers who want to have tools for doing their own troubleshooting and diagnostics.

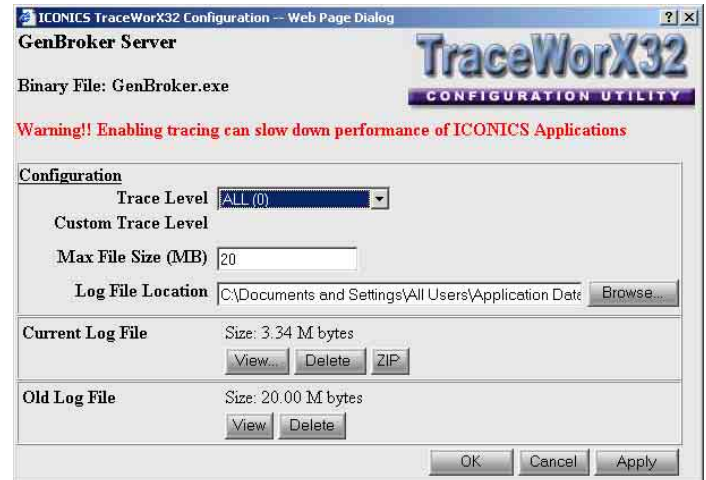
Capabilities:

- TraceWorX32 tracks the runtime activity for each GENESIS32 application and logs the runtime data to a log file based on user-configured trace levels. The log file provides a thorough, color-coded report detailing all activity for the application, including the time, the date, the severity level, and a description of the event or problem.

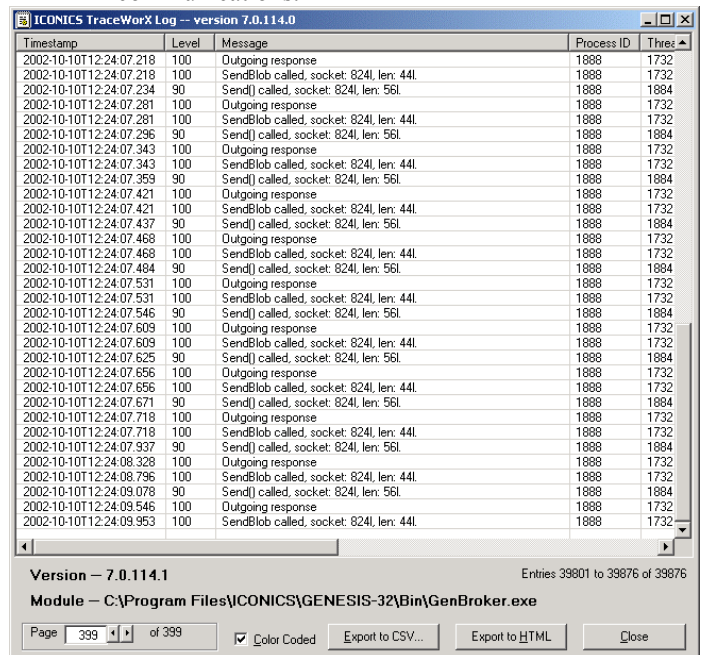
Monitoring OPC communication issues:

To configure Iconics TraceWorX32 to monitor OPC communications issues

- From the windows **Start** menu, select **Programs > Iconics GENESIS32 > Tools > TraceWorX32**
- The **TraceWorX32.htm** file, which contains the Configuration Utility, opens in your Web browser.
- In order to troubleshoot OPC communication problems from the server side the user should monitor GenBroker Server, and on the client side the user should monitor GenBroker Client along with the Iconics module requesting tag information (i.e. GraphWorX)
- To configure each module, click the module's button in the configuration utility table. This opens the configuration dialog box for the module. Every module uses the same basic configuration dialog, so the functionality is the same for all modules. The example figure below shows the GenBroker Server configuration dialog box. This is the module to monitor on the server side.



- The user can set the trace level to ALL which will log all information generated by GenBroker.exe. Below is an example of a log file during successful communications.



- If the GenBroker log file does not look similar to the one above or is not continuously increasing in size there is a communications problem that may be better diagnosed by looking at the client side.
- Now on the client side the user should monitor both GenClient and the Iconics module that is requesting the OPC data. If communications is disrupted you will see messages with a high severity in your GenClient log file similar to the ones pictured below.



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ICONICS TraceWorX Log -- version 7.0.114.0				
Timestamp	Level	Message	Process ID	Thres
2002-10-10T13:46:43.593	400	RecvThreadFunc finished.	1952	872
2002-10-10T13:46:43.609	700	Failure on CDPCCSecPoint_0x80004005	1952	1792
2002-10-10T13:46:43.640	400	CwWrapper:PassResponse(), DESTROY received	1952	788
2002-10-10T13:46:43.765	700	Failure on CDPCCSecPoint_0x80004005	1952	1792
2002-10-10T13:46:43.781	400	CTcpWrapper:Init()	1952	1792
2002-10-10T13:46:43.781	400	Init(), Addr: PANEL, Port: 38080	1952	1636
2002-10-10T13:46:43.828	700	Init(), Socket exception: 11001	1952	1636
2002-10-10T13:46:43.843	400	Exit()	1952	1636
2002-10-10T13:46:43.859	700	CTcpWrapper:CreateServer()	1952	1636
2002-10-10T13:46:43.968	400	Exit()	1952	788
2002-10-10T13:46:43.968	400	OnBreak called, socket: 1252i	1952	280
2002-10-10T13:46:43.984	400	SendThreadStub finished	1952	280
2002-10-10T13:47:13.875	400	Init(), Addr: PANEL, Port: 38080	1952	1636
2002-10-10T13:47:13.890	700	Init(), Socket exception: 11001	1952	1636
2002-10-10T13:47:13.906	400	Exit()	1952	1636
2002-10-10T13:47:13.906	700	CTcpWrapper:CreateServer()	1952	1636
2002-10-10T13:47:43.937	400	Init(), Addr: PANEL, Port: 38080	1952	1636
2002-10-10T13:47:43.953	700	Init(), Socket exception: 11001	1952	1636
2002-10-10T13:47:43.953	400	Exit()	1952	1636
2002-10-10T13:47:43.968	700	CTcpWrapper:CreateServer()	1952	1636
2002-10-10T13:48:13.968	400	Init(), Addr: PANEL, Port: 38080	1952	1636
2002-10-10T13:48:13.984	700	Init(), Socket exception: 11001	1952	1636
2002-10-10T13:48:13.984	400	Exit()	1952	1636
2002-10-10T13:48:44.015	700	CTcpWrapper:CreateServer()	1952	1636
2002-10-10T13:48:44.031	700	CTcpWrapper:CreateServer()	1952	1636
2002-10-10T13:49:14.031	400	Init(), Addr: PANEL, Port: 38080	1952	1636
2002-10-10T13:49:14.046	400	RecvThreadFunc starting, Socket: 512i	1952	1944
2002-10-10T13:49:14.046	400	SendThreadFunc starting, Socket: 512i	1952	1860
2002-10-10T13:49:14.062	400	CTcpWrapper:CreateServer()	1952	1636

Version -- 7.0.114.1 Entries 201 to 259 of 259

Module -- C:\Program Files\ICONICS\GENESIS-32\Bin\GenClientU.dll

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8. Also within the log file created for the module requesting the OPC data you will see entries in the log file with a high severity.

ICONICS TraceWorX Log -- version 7.0.114.0				
Timestamp	Level	Message	Process ID	Thres
2002-10-09T21:52:31.593	400	Registry: Use Language Aliasing = 1		
2002-10-09T21:52:46.078	800	Severity: 750, Message: GraphWorX32/HVAC_AHU1: Failed to get localeID for language		
2002-10-09T21:53:31.109	400	Open VBFX Project		
2002-10-09T21:53:35.265	400	AddOleClientItems		
2002-10-09T21:53:35.328	400	Open VBFX Project		
2002-10-09T21:53:37.468	800	Severity: 750, Message: GraphWorX32/HVAC_Chiller1: Failed to get localeID for language		
2002-10-09T21:54:08.375	400	Open VBFX Project		
2002-10-09T21:54:08.468	400	AddOleClientItems		
2002-10-09T21:54:10.843	800	Severity: 750, Message: GraphWorX32/LaserDoorMeasure: Failed to get localeID for language		
2002-10-09T21:55:04.125	400	Registry: Use Global Aliasing = 1		
2002-10-09T21:55:04.140	400	Registry: Use Language Aliasing = 1		
2002-10-09T21:55:04.500	400	Open VBFX Project		
2002-10-09T21:55:04.515	400	AddOleClientItems		
2002-10-09T21:55:07.250	800	Severity: 750, Message: GraphWorX32/Microsoft_Demo_BikeAssembly: Failed to get localeID for language		
2002-10-09T21:55:48.390	400	Open VBFX Project		
2002-10-09T21:55:48.421	400	AddOleClientItems		
2002-10-09T21:56:02.203	800	Severity: 750, Message: GraphWorX32/Microsoft_Demo_BikePaintShop: Failed to get localeID for language		
2002-10-09T22:13:31.140	400	Registry: Use Global Aliasing = 1		
2002-10-09T22:13:31.140	400	Registry: Use Language Aliasing = 1		
2002-10-09T22:13:31.453	400	Open VBFX Project		
2002-10-09T22:13:31.468	400	AddOleClientItems		
2002-10-09T22:13:59.953	800	Severity: 750, Message: GraphWorX32/test: Failed to get localeID for language ". Can't find		
2002-10-09T22:15:53.484	800	Severity: 750, Message: GraphWorX32/test: Failed to get localeID for language ". Can't find		
2002-10-10T00:17:59.968	700	UpdateOPCDat[] point "\Panel\ICONICS_Simulator\1\SimulatePLC.Ramp" does not exist.		
2002-10-10T00:17:59.984	700	UpdateOPCDat[] point "\Panel\ICONICS_Simulator\1\SimulatePLC.InitFanSp" does not exist.		
2002-10-10T12:15:37.906	400	Registry: Use Global Aliasing = 1		
2002-10-10T12:15:37.921	400	Registry: Use Language Aliasing = 1		
2002-10-10T12:15:39.062	400	Open VBFX Project		
2002-10-10T12:15:39.109	400	AddOleClientItems		
2002-10-10T12:15:43.250	800	Severity: 750, Message: GraphWorX32/test: Failed to get localeID for language ". Can't find		
2002-10-10T12:22:56.265	800	Severity: 750, Message: GraphWorX32/test: Failed to get localeID for language ". Can't find		

Version -- 7.0.114.0 Entries 1 to 71 of 71

Module -- C:\Program Files\ICONICS\GENESIS-32\Bin\Gwx32.exe

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9. The combination of all three log files above helped determine that the communications link between both server and client had been severed.
10. In this situation the user will need to check network communication along with the GenBroker, GenClient setup. This file can be saved as a csv or html and then emailed to ICONICS for further analysis and troubleshooting.
11. There is a GenBroker quick start that will aid in troubleshooting setup issues with GenBroker