

Description: Guide to running TraceWorX32 to find OPC Communication issues.

OS Requirement: Win 2000/2003/XP/Server 2000/Server 2003

General Requirement: N/A

Introduction

TraceWorX32 provides online diagnostics and tuning of applications running in the GENESIS32 system. It is designed for system integrators, OEMS, and customers who want tools for doing their own troubleshooting and diagnostics.

TraceWorX32 tracks the runtime activity for each GENESIS32 applications 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 the description of the even or problem.

This document will list the steps you should take to turn on TraceWorX32 to monitor OPC communication issues on your server and client machine.

Setting up TraceWorX32 on the Server

1. Open TraceWorX32 from Start → Programs → ICONICS Tools → TraceWorX32
2. The file opens in your web browser with all the modules that are available for tracing.

NOTE: Internet Explore may have restricted you from viewing this file. You should click on the message and select “Allow Blocked Contents...” to view the modules.

3. Select GenBroker Server in the list of modules.

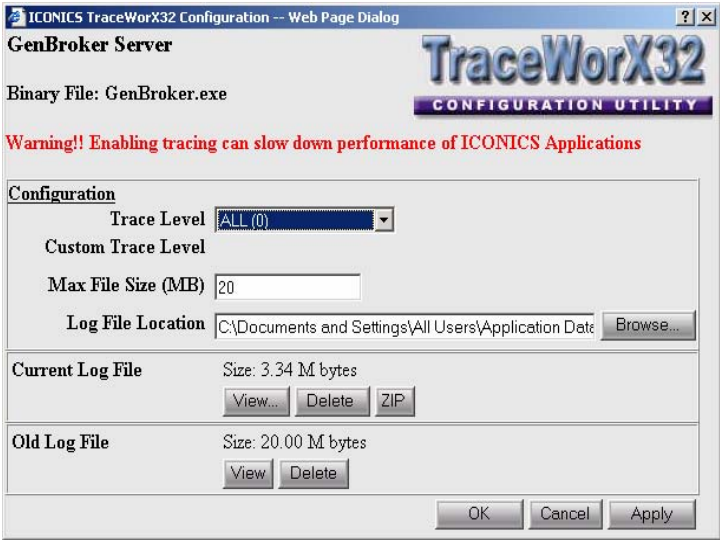


Figure 1 - GenBrkoer Server Trace Configuration

4. In the window that comes up, set the Trace Level to ALL(0).You can change the Max File Size, by default it is 0, which means that the file can grow infinitely large. You can also change the Log File Location to somewhere that is more convenient for you to find later.
5. Figure 2 shows an example of the GenBroker log file. If your file does not look similar to it or does not continuously increase in size, then there is a communication problem that may be better diagnosed by looking at the client-side.

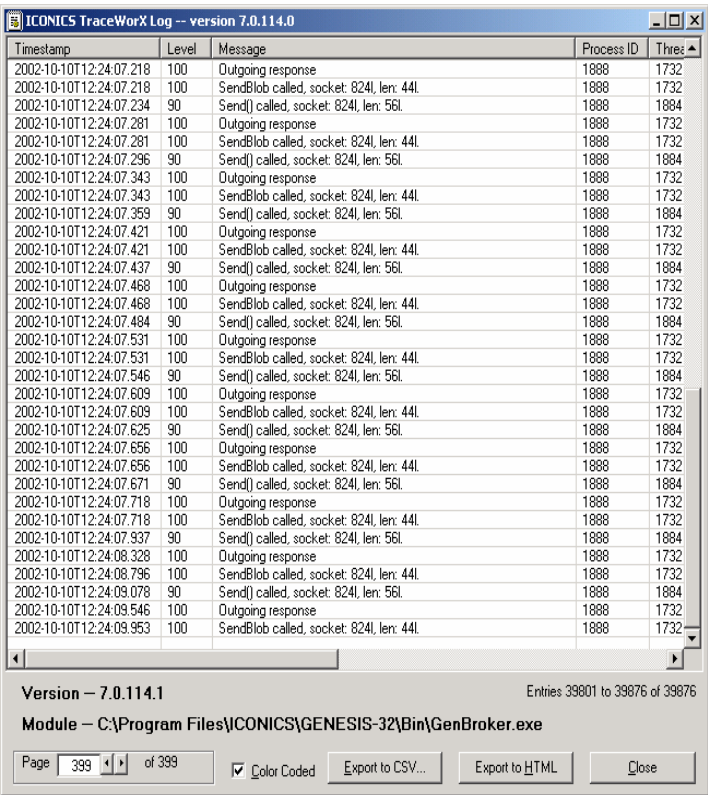


Figure 2 - Sample GenBroker Log File

Setting up TraceWorX32 on the Client

1. Open TraceWorX32 the same way you launched it on the server machine.
2. Turn on tracing for GenClient, GenClientU, and any ICONICS modules that requests OPC data..

NOTE: You can follow Step 4 in the previous section to setup the tracing level and trace log file path.

3. If there is disruption between communications, you will see message with high severity on your GenClient log similar to Figure 3.

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 CDPSCecPoint, 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 CDPSCecPoint, 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: 1252l	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
2002-10-10T13:47:13.890	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
2002-10-10T13:48:14.000	700	CTcpWrapper::CreateServer()	1952	1636
2002-10-10T13:48:44.000	400	Init(), Addr: PANEL, Port: 38080	1952	1636
2002-10-10T13:48:44.015	700	Init(), Socket exception: 11001	1952	1636
2002-10-10T13:48:44.015	400	Exit()	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: 512l	1952	1944
2002-10-10T13:49:14.046	400	SendThreadFunc starting, Socket: 512l	1952	1960
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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Color Coded
Export to CSV...
Export to HTML
Close

Figure 3 - GenClient Trace Log

- Within the log files created for the modules requesting OPC data, you will also see entries in the log file with high severity similar to Figure 4.

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		
2002-10-09T21:53:31.250	400	AddOLEClientItems		
2002-10-09T21:53:35.265	400	Open VBFX Project		
2002-10-09T21:53:35.328	400	AddOLEClientItems		
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	UpdateOPCData[]_point "\Panel\ICONICS_Simulator.1\SimulatePLC.Ramp" does not exist.		
2002-10-10T00:17:59.984	700	UpdateOPCData[]_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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Color Coded
Export to CSV...
Export to HTML
Close

Figure 4 - OPC Data Requesting Module Trace Log

- The combination of all the above mentioned log files determined that the communications link between the server and client was severed.
 - In this situation, you will need to check the network communications along with GenBroker and GenClient setup.
- NOTE:** You may want to reference the application note entitled *GenBroker – Introduction to GenBroker Communications* for information on how to setup GenBroker correctly.
- You can save these files in CSV or html format and email to ICONICS for further analysis and troubleshooting.

Setting up TraceWorX32 on a WebHMI Client

Just like we can use TraceWorX32 for machines with GENESIS32 installed, we can use it on WebHMI client machines as well. The steps are similar to those on the server side, with two exceptions: the URL for the TraceWorX32 page is different and the number of options for tracing will be limited to those WebHMI components installed on the client.

The URL for TraceWorX32 on a WebHMI client is as follows:

http://<NODE>/WebHMI/Samples/TraceWorX32.htm

where <NODE> is the name of the WebHMI server machine.