



GENESIS64 – Monitoring services, redundancy, and license



APPLICATION NOTE

August 2014

Description: Guide to use MonitorWorX and FrameWorX tags to monitor and get overview of GENESIS64 modules "health" status

Introduction

You can use special FrameWorX tags available in GENESIS64 to monitor specific services running on the server. These tags will give you information about whether a service is running, what is the start mode, etc. Using these tags will also provide you the ability to stop and start services.

Additionally, this feature allows you to view information on GraphWorX64 displays that is similar to information available in MonitorWorX.

You can also display how many license tags are currently in use. For this purpose you will use license information tags available in GENESIS64.

Monitoring services via FrameWorX tags

1. Open GraphWorX64 and insert a new process point into the display from the dynamics tab of the ribbon. You will see that the Data Browser appears.
2. Go into Home → Control and Diagnostics → Services
 - a. Select Platform services if you want to monitor ICONICS services
 - b. Select Other services if you want to monitor other services running on the server
3. Select Platform services → ICONICS GenBroker → Status and click "OK". The following syntax will be generated - **:Services/Platform/IcoGenBroker/Status**
4. Go into runtime, and if GenBroker is running you should get the value **3**

3.00

`:Services/Platform/IcoGenBroker/Status = 3 (Read Only) (Good)`

Figure 1 – FrameWorX tag for monitoring GenBroker service

5. You can use EPS enum feature to get a string value representation of the status – Browse for the tag, click the EPS button in data browser and select Enum – you will get the following syntax - **enum(:Services/Platform/IcoGenBroker/Status)**

Running

`enum(:Services/Platform/IcoGenBroker/Status) = Running (Read Only) (Good)`

Figure 2 – FrameWorX tag for monitoring GenBroker service

NOTE: This Enum feature can be used only on Status and StartMode tags.

6. In same way as Status information you can also display description, name, IsRunning, and StartMode information

Please see following list to determine which values correspond with specific service status:

Status tags:

- Value 0 - Service Stopped
- Value 1 - Service StartPending
- Value 2 - Service StopPending
- Value 3 - Service Running
- Value 4 - Service ContinuePending
- Value 5 - Service PausePending
- Value 6 - Service Paused

Start Mode tags:

- Value 0 - Service start mode Boot
- Value 1 - Service start mode System
- Value 2 - Service start mode Auto
- Value 3 - Service start mode Manual
- Value 4 - Service start mode Disabled

How to Start or Stop a specific service

Using IsRunning tag you can start or stop or specific service, but first you need to enable this in Platform Service in Workbench. Open Workbench → Tools → Platform Services → Point Managers and select "Control Point Manager". Change the ENableServiceStartStop value to "True". After this change you need to restart FrameWorX server.

With this settings enabled you can connect to IsRunning tag, so the syntax will be the following:

:Services/Platform/IcoGenBroker/IsRunning.

You can make this process point writable, and then writing the value 0 will stop the GenBroker service. Writing the value 1 will start the GenBroker service.



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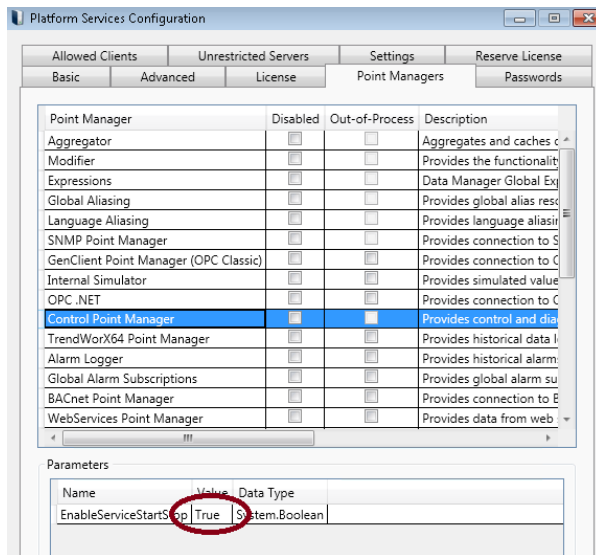


Figure 3 – Enable service start and stop control

Monitoring ICONICS redundancy via MonitorWorX tags

You can also monitor ICONICS redundancy “health” status in a similar way as you can monitor services running on the server. The information shown will be similar to the information on the MonitorWorX Redundancy tab (Start → ICONICS Licensing → ICONICS .NET Licensing → MonitorWorX Viewer).

1. Open GraphWorX64 and put a process point into the display
2. In the Data Browser browse to Home → Redundancy Information
 - a. Here you can choose if you want to monitor GenClientRedundancy or UaRedundancy – same as in MonitorWorX Viewer – OPC Classic Redundancy or OPC UA Redundancy
3. Browse forward and you will see that you can display the following information – Active, CanMakeActive, Online and RedundancyMode – select one of them and go into runtime – you will get a value for the specific service running in redundancy

For Redundancy Mode tags you can get following values:

- Value 0 - Offline
- Value 1 - Starting up
- Value 2 - Switching to Standby mode
- Value 3 - Currently in Standby mode
- Value 4 - Switching to Active mode
- Value 5 - Currently in Active mode
- Value 6 - Shutting down
- Value 7 - Not licensed
- Value 8 - Synchronizing

Monitoring ICONICS license

If you want monitor your ICONICS license you can use License Information tags:

1. Open GraphWorX64 and put a process point into display and open the Data Browser
2. Browse for Home → License Information →
 - a. Select Overview for summary information about license
 - b. Select Category to get license information related to specific modules
3. Go into runtime and license information will be displayed in the process point