



GENESIS64

Reserved Licenses



APPLICATION NOTE

October 2015

Description: Guide to configuring reserved user licenses for GENESIS64.

Introduction

With GENESIS64, you can configure reserved user licenses for high priority or critical system users such as system admins, engineering accounts or crucial system operators.

The feature allows licenses to be reserved for ICONICS security users (see application note entitled, "GENESIS64 Security - Quick Start") or via client node name. The feature will reserve a license hence removing it from the pool of available licenses for other users/clients.

NOTE: It is possible to exceed the system license allocation with reserved licenses.

Configuring Reserved User License

Reserving a license for a user reserves it permanently removing it from the global pool of shared licenses. A user with access to the reserved licensing will first check for a reserved license then can take one from the global allocation if none in the reserved pool are available.

There are two steps to configuring a reserved user license:

- Select the user(s) that license reservations would be available for.
- Assign the reservation to the license.

Select users with access to the reserve license pool

1. Open the ICONICS GENESIS64 Workbench.
2. Select the security provider.
3. Under the users group select the user(s) to have access to the reserve license pool and enable the Reserved licensing check box.

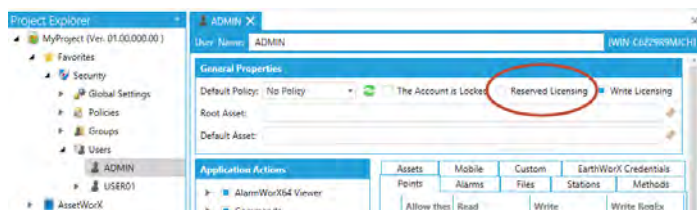


Figure 1 - Configuring Reserved licensing Users

NOTE: As security users access to the reserved licensing pool is independent of the reserved license pool configuration it is possible to

configure more users with access to the reserved licensing pool than number of licenses in the reserved pool and vice versa.

Create the license reservation pool

To configure the license reservation pool it is required to make a change to the license configuration file and restart the license service.

WARNING: MODIFYING THE LICENSE FILE IN A MANNER OTHER THAN DIRECTED MAY CAUSE INSTABILITY OR THE PRODUCT NOT TO FUNCTION AS EXPECTED.

4. Locate the IcoLicenseRuntimeConfig.XML (C:\Program Files\ICONICS\GENESIS64\Components\IcoLicenseRuntime.config.xml)
5. Copy the file to a different directory.
6. Open the file in a text editor such as notepad.
7. Go to the following line shown in Figure 2 to configure the number of reserved licenses:

```
<configuration xmlns:xsd="http://www.w3.org/2001/XMLSchema" :>
  <StartDelay>0</StartDelay>
  <NumberOfReservedLicenses>0</NumberOfReservedLicenses>
  <DemoMode>false</DemoMode>
</configuration>
```

Figure 2 - Configuring IcoLicenseRuntime.Config.XML

8. Enter the number of licenses to remove from the global pool and add to the reserved pool.

```
<NumberOfReservedLicenses>5</NumberOfReservedLicenses>
```

9. Copy the file back into the components directory and overwrite the original.

WARNING: RESTARTING THE LICENSE SERVICE WILL HAVE SEVERE CONSEQUENCES ON LIVE SYSTEMS.

10. Restart the ICONICS License service.

NOTE: Licenses added to the reserve pool are not eligible to be used by global users, even if no reserved users are connected to the system, the licenses are always reserved.

View the license status for reserved user licenses

The status of all licenses and reserved user licenses are shown in the MonitorWorX Viewer



GENESIS64

Reserved Licenses



APPLICATION NOTE

October 2015

Feature	In Use Standard	Total Standard	In Use Reserved	Total Reserved	Total
GENESIS64 Developer Stations	0	1	-	-	1
GraphWorX64 Developer Stations	1	1	-	-	1
AlarmWorX64 Developer Stations	0	1	-	-	1
HyperHistorian Developer Stations	0	1	-	-	1
GraphWorX64 Client Stations	1	4995	0	5	5000
TrendWorX64 Client Stations	1	4995	0	5	5000
AlarmWorX64 Client Stations	1	4995	0	5	5000
GridWorX Client Stations	0	0	0	5	2
Workbench Client Stations	0	0	0	5	2
AlarmWorX64 Logger Servers	0	1	-	-	1
AlarmWorX64 Servers	1	1	-	-	1
TrendWorX64 Logger Servers	0	1	-	-	1
HyperHistorian Enterprise Servers	0	0	-	-	0
HyperHistorian Standard Servers	0	1	-	-	1
HyperHistorian Collectors	0	1	-	-	1
GENESIS64 Redundancy	0	0	-	-	0

Figure 3 - MonitorWorX Viewer GENESIS64 license information

It is also possible to view the node(s) that are using license bits from this location:

Node	Feature	In Use Standard
ICOUKTDAPPV08	MobileHMI Server	1
ICOUKTDAPPV08	Unified Data Manager	1
ICOUKTDAPPV08	GENESIS64 Application Servers	1
ICOUKTDAPPV08	AlarmWorX64 Servers	1
ICOUKTDAPPV08	Client Stations	1
ICOUKTDAPPV08	GraphWorX64 Developer Stations	1
ICOUKTDAPPV08	Desktop Enabled Stations	1
ICOUKTDAPPV08	TrendWorX64 Client Stations	1
ICOUKTDAPPV08	AlarmWorX64 Client Stations	1
ICOUKTDAPPV08	GridWorX Client Stations	1
ICOUKTDAPPV08	GENESIS64 Redundancy	0
ICOUKTDAPPV08	GraphWorX64 Client Stations	0

Figure 4 - MonitorWorX Viewer Diagnostics tab

Configuring Reserved Node License

It is possible to reserve a user license via node name to ensure access from critical workstations or managerial/engineering nodes.

NOTE: Reservation by IP address is not supported.

To configure the license reservation pool it is required to make a change to the license configuration file and restart the license service.

WARNING: MODIFYING THE LICENSE FILE IN A MANNER OTHER THAN DIRECTED MAY CAUSE INSTABILITY OR THE PRODUCT NOT TO FUNCTION AS EXPECTED.

1. Locate the IcoLicenseRuntime.Config.XML (C:\Program Files\ICONICS\GENESIS64\Components\IcoLicenseRuntime.config.xml)
2. Copy the file to a different directory.
3. Open the file in a text editor such as notepad.
4. Inside the <Configuration></Configuration> section the following section will have to be added:

```
<reserve>
  <node>
    <name>AdminNode1</name>
    <LicenseCategory>iCAL</LicenseCategory>
    <count>1</count>
  </node>
  <node>
    <name>AdminNode1</name>
    <LicenseCategory>GWX64</LicenseCategory>
    <count>1</count>
  </node>
</reserve>
```

5. Copy the file to back into the directory specified in section 1.
6. Restart the License Service

Client Station Reservation

A client station license (iCAL) is required if the number of clients that may be trying to connect to the system exceed or equals the number of available client station licenses.

Client Viewer Reservation

It is typical for a system to handle multiple client types, in which case a reservation for the client type may be required past the initial client station connection i.e. GraphWorX64 (GWX64), Workbench (Workbench), WebHMI (WebHMI). PortalWorX (PortalworX).

The example above would be implemented for a system where a machine whose node name is AdminNode1 always requires a license to connect to the system and launch a GraphWorX64 display. In this system there would be more users than client station licenses are available therefore requiring the client station



GENESIS64

Reserved Licenses



APPLICATION NOTE

October 2015

(iCAL) reservation and a GWX64 reservation as there are a limited number of thick client GraphWorX64 Client application licenses available.

In summary the license reservation should be done on the license(s) which are under contention.

NOTE: License reservation by node are not reflected in MonitorWorX. Diagnostics tab will still display all license allocations, those it is unable to serve will be displayed in red.

License Reservation Types

The following list contains all of the different license types which can be reserved via the Reserved Node Licensing:

iCAL	Total Number of Client PCs
Desktop	Number of machines that can run as a desktop (the rest are web-only)
DevConfig	Number of machines that can run the server configuration forms
GWX64Config	Number of machines that can run GraphWorX in configuration mode
AWX64Config	Number of machines that can configure AlarmWorX
HHConfig	Number of machines that can configure HyperHistorian
LocalIO	Number of machines that can access local IO
IAppServer	Number of machines that can serve data
Workbench	Number of machines which can access the workbench
GWX64	Number of machines which can access GraphWorX64
TWX64	Number of machines which can run TrendWorX64 Viewer
AWX64	Number of machines which can run AlarmWorX64 Viewer
EWX	Number of machines which can run AlarmWorX64 Viewer
Gadgets	Number of machines which can run the ICONICS Gadgets
TWX64Logger	Number of machines which can run the TrendWorX64

	Logger
AWX64Logger	Number of machines which can run the AlarmWorX64 Logger
AWX64Server	Number of machines which can run the AlarmWorX64 Server
HHStandard	Number of machines which can run the Hyper Historian Standard (in process)
HHEnter	Number of machines which can run the Hyper Historian Enterprise (in process)
BizVizAssets	Number of BizViz Assets
KepStandard	Number of machines which can run the Kepware standard server license
ModBUS_OPC	Modbus OPC Server count
ModBUS_Ethernet	ModBUS Ethernet Server Ethernet Server count
UDM	The Number of Machines which can run the Unified Data Manager
UTM	The The Number of Machines which can run the UTM Data Connector
BACnet	The Number of Machines which can run the BACnet Server
N1OPC	Server The Number of Machines which can run the N1OPC Server
SNMPConnector	The Number of Machines which can run the Simple Network Manager Protocol connector
MMX32Server	The Number of Machines which can run the MMX32 Server
MMX64Server	The Number of Machines which can run the MMX64 Server
MMXLite	The Number of Machines which can run MMX Lite



GENESIS64

Reserved Licenses



APPLICATION NOTE

October 2015

MMXDistribution	The Number of Machines which can run the MMX Distribution
MMXPhone	The Number of Machines which can run the MMX Phone Agent
ScheduleWorX	The Number of Machines which can run ScheduleWorX
FacilityWorX	The Number of Machines which can run FacilityWorX
FacilityWorXNavigator	The Number of Machines which can run the FacilityWorX Navigator
ReportWorX	The maximum amount of ReportWorX Reports which can be enabled
BridgeWorX	The maximum amount of BridgeWorX Transactions which can be enabled
HHCollectors	The maximum amount of Hyper Historian Collectors which can be enabled
GEN64Redundancy	Whether GENESIS64 Redundancy can be enabled
GenBrowser	The Maximum amount of GenBrowser Clients which can be simulatenously connected
WebHMI	The Maximum amount of WebHMI Clients which can be simulatenously connected
AlarmAnalytics	The maximum amount of Alarm Analytics reports which can be enabled
DataWorX	The Number of Machines which can run DataWorX32
KepBuildingAutomation	The Number of Machines which can run the Kepware professional building automation server
KepITInfrastructure	The Number of Machines which can run the Kepware professional IT/Infrastructure server
KepManufacturing	The Number of Machines

	which can run The Kepware professional manufacturing server
KepOilGas	The Number of Machines which can run the Kepware professional Oil and Gas server
KepPowerDistribution	The Number of Machines which can run the Kepware professional power distribution server
BizVizClients	The Maximum amount of concurrent BizViz Clients
EnergyAnalyticsAssets	The Maximum amount of enabled Energy Analytics Assets
EnergyAnalyticsClients	The Maximum amount of Energy Analytics BizViz Clients
DBOPCServer	The Number of Machines which can run the DB OPC Server
ScriptWorX32	The Number of Machines which can run ScriptWorX32
ScriptWorX2010	The Number of Machines which can run ScriptWorX2010
WebPlugin	The Number of Machines which can run the WebPlugin
GEN32PointCount	The Maximum amount of concurrent GENESIS32 points on scan
GEN32ClientCount	The Maximum amount of concurrent GENESIS32 clients
GEN32Redundancy	Whether GENESIS32 Redundancy is enabled
CEToolWorX	Whether CE ToolWorX is enabled
PortalWorX	Whether PortalWorX is enabled
WebINTFC	Whether the Web Interface is enabled
DataWorXLite	The Maximum amount of machines which can run DataWorX32 Lite
PocketGENESIS	The Maximum amount of machines which can run



GENESIS64

Reserved Licenses



APPLICATION NOTE

October 2015

	PocketGENESIS
MobileHMI	The Maximum amount of machines which can run MobileHMI (32-bit)
GridWorX	The Maximum amount of machines which can run GridWorX
MobileHMIClients	The Maximum amount of concurrent MobileHMI Clients
MobileHMIServer	The Maximum amount of machines which can run the MobileHMI Server (64-bit)
FacilityAnalytiXClients	The Maximum amount of Facility AnalytiX clients
FacilityAnalytiXAssets	The Maximum amount of enabled Facility AnalytiX Assets
ScheduleWorX64Viewer	The Maximum amount of ScheduleWorX Viewers
ScheduleWorX64Server	The Maximum amount of machines which can run the ScheduleWorX64 Server
ScriptWorX64	The Maximum amount of machines which can run ScriptWorX64
PortalWorX64Server	The Maximum amount of machines which can run the PortalWorX64 Server