



**Description:** Guide to configuring ICONICS Security settings for AssetWorX in Runtime.

**OS Requirement:** Vista x64/ Windows 7 x64/ Windows 8 x64/ Windows Server 2008 x64/ Windows Server 2008 R2 x64/ Windows Server 2012

**General Requirement:** GENESIS64. Familiarity with the application notes, *AssetWorX - Quick Start*, *AssetWorX – Navigator*, *GENESIS64 Security - Quick Start*.

## Introduction

AssetWorX is a convenient way to organize and access your data into real-world structures (assets). The AssetWorX Navigator provides the user with a view of these structures according to ICONICS security permissions in place.

This document will demonstrate the configuration of ICONICS security settings for AssetWorX in runtime. We will build our example on the default sample AssetWorX configuration:

## Overview

You can control which assets the users have permission to view and control using the Security Server provider. You can set up the Security Server in both Workbench and Workbench-SL.

Security for AssetWorX can be applied to the following items:

- Assets
- Commands
- Root Asset
- Default Asset

## Root and Default Assets

Users and groups can define a Root Asset and a Default Asset. The Root Asset will be shown at the root of the Asset Navigator, and the Default Asset will be expanded in the Asset Navigator by default. These settings can be used to customize how the Asset Navigator looks for different users.

## Assets

Users and groups also have a tab called Assets. This tab can allow or deny access to particular assets. The Security settings can control whether users can visualize assets and execute Commands on assets. To prevent users from the "ac:" tags in GraphWorX64 and other GENESIS64 clients, you can use the Points tab just like any other tag.

**NOTE:** The "ac:" tag prefix is used in the AssetWorX GenBroker plug-in. Other GenBroker plug-ins use similar syntax, but with different prefixes.

## Commands

You can control which commands your users have permission to execute using the Security Server provider in Workbench. Security for commands is defined in the Application Actions tabs of users and groups.

AssetWorX Navigator hides all commands that are not available for the current user.

**NOTE:** See the application note entitled *GENESIS64 – Commanding Introduction* for more information and logic in commanding.

Keep in mind that there are two security checks in the case of Client commands. First, a check is performed to see if the user has permission to execute the command, then a second check is performed to see if the action taken by the command is allowed. For example, a Load GraphWorX Display command might be allowed but if the display file is denied for the user, the page will not be opened.

## Configuring the Security Server

Let us create two users who can view other branches of our asset structure. The first user will be an administrator who should be able to see every asset and should be allowed to perform all commands.

The second user will have limited privileges. and should be allowed to view only Foxboro Bakery asset branch in the AssetWorX Navigator. Also when he logs in, the "South" area should be automatically selected. He should not be able to see equipment that is under the South area in the AssetWorX Navigator. Lastly he should not be able to use Load GraphWorX display command.

- 1) Go to Start → ICONICS → **Workbench-SL** to open Workbench-SL in Internet Explorer.
- 2) Select Security Server provider and click with right mouse button on Users. From the menu select **Add User**.
- 3) For **Name** type "Admin", leave all options as they are and click **Apply**.
- 4) You will be asked to enter password.
- 5) If you have not been logged in, you will be immediately asked to login. Use your new credentials.



**NOTE:** Your first user should be always an administrator with privileges to setup security otherwise you will lock yourself out.

- 6) Now create another user called **"Foxboro Bakery South Supervisor"**.
- 7) To limit him to Foxboro bakery we can set his **Root Asset** to Foxboro bakery. Use the ellipsis button next to the Root Asset field. Find Foxboro bakery under the AssetWorX object in the browser that pops up.
- 8) The South area will be the initial asset. Fill the Default Asset field in the way we filled Root Asset but specify **South** instead.

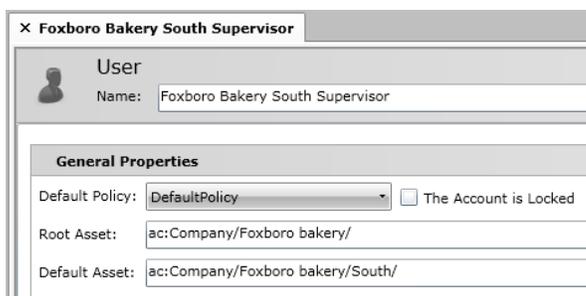


Figure 2 – Root and Default Assets

- 9) Next we want to limit his ability to view assets below North. Click the **Assets** tab and add the following string into the **Deny these operations** field:  
"ac:Company/Foxboro bakery/North/Baking line\*"
  - 10) Check the Visualize as well as the Execute check boxes so the user cannot see the assets below North area, nor execute commands assigned to them.



Figure 3 – Deny Assets operations

- 11) In the **Application actions** section, expand Commands and uncheck 'Load GraphWorX display' option, as seen in Figure 4.
- 12) Click Apply and enter password for the new user.

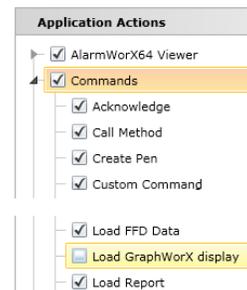


Figure 4 – Application actions

## Testing the Configuration

Before testing the security configuration, we need to add commands into our AssetWorX tree.

- 1) In Workbench – SL select AssetWorX provider.
- 2) Expand the tree to Foxboro bakery - North
- 3) On the North asset, go to "Commands" tab
- 4) Add new command and from the command list select 'Load Graphics Display'
- 5) Change the command name, add any GraphWorX display and hit Apply
- 6) Add new command and from the command list select 'Load Trend Configuration'
- 7) Change the command name, add any TrendWorX configuration and hit Apply

Let us now have a look at the result of our security context customization:

- 1) While in Workbench – SL click Runtime button in the top left corner and PortalWorX – SL will open.
- 2) Log in as Administrator and examine your asset structure. You can see all branches and it starts the very top level. You can view everything what has been configured in the AssetWorX provider.
- 3) Log out and login again but this time as **Foxboro Bakery South Supervisor**.
- 4) You can see that your Asset Navigator does not show Company nor Mansfield bakery assets.
- 5) The root level is actually Foxboro bakery and initially selected asset is South area.
- 6) You can also select North area but you cannot view any assets that are within.