



GENESIS64 Security Quick Start



APPLICATION NOTE

October 2015

Description: This Application Note will introduce GENESIS64 Security, and explain how to perform some basic operations with this technology.

Introduction

GENESIS64 uses a security model that is both granular and additive. You can set individual rights and access based on users and groups, create named policy settings that can be applied to users and groups, and control access to individual applications, features, systems, and more based on time settings if you wish.

General security protection is applied to the following items within the GENESIS64 system:

- Application actions
- Process points
- Alarms
- Files
- Stations
- Critical points & alarms

The security system contains two components: the Security Server, which manages user logins and security system clients contained within the applications in the GENESIS64 family (e.g. GraphWorX64, TrendWorX64, AlarmWorX64, etc.). Any stimulus (i.e. a user login or logout) that causes a change in security status will be immediately posted to the affected clients.

Configuring the Security Server

1. You can launch the Security Server from the Start menu or from the Workbench. You can go to **Start → All Programs → ICONICS → Tools**, and then select the Security command. Alternatively, you can click on the **Security Server** icon in the navigation tree button bar in the Workbench, shown circled in red in Figure 1.

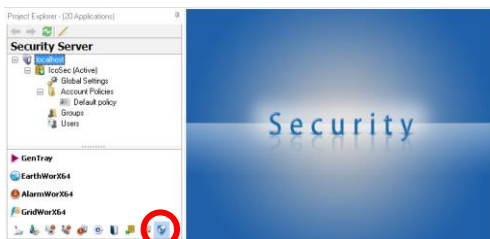


Figure 1 - Security Server in the Workbench

2. We will create a user group next. Right-click on the **Groups** folder and select **+ Group**. Name this group Administrators and click on **Apply**.

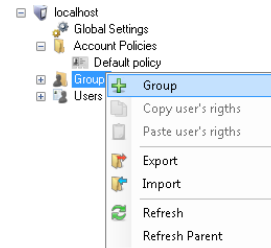


Figure 2 - Adding a User Group

3. Next, we will add a user. Right-click on **Users** folder, select **+ User**. Call this user Admin; specify the password and click on **Apply**.

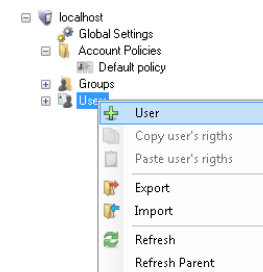


Figure 3 - Adding a User

NOTE: The first user that you add to security is always the system administrator with all permissions granted. This will prevent you from being logged out of your own system. Also, as soon as you create this user, security will start and you will be logged out of the security. Please log in to continue.

4. We will now associate the user Admin with the group Administrators. Right-click on the group Administrators, and select **Membership** and the **Group Properties** dialog appears.

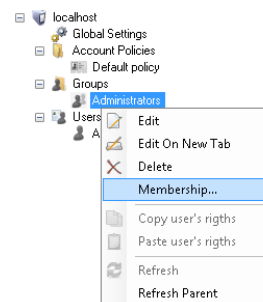


Figure 4 - Group Membership

5. Click on the **Add** button, select **Admin** user, click **Ok**, and then **Exit**.



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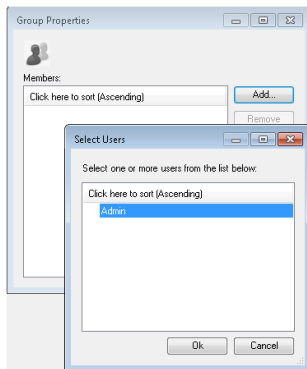


Figure 5 - Adding a User to a Group

- We will now look at application privileges. To set **Security Privileges**, create a new group called **Users**, and go to **Application Actions** tab.
- In GraphWorX64 → Menu section, uncheck **Exit Runtime** option

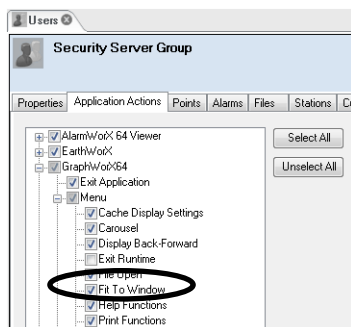


Figure 6 - Removing GraphWorX64 Exit Runtime Permission

NOTE: This protects GraphWorX64 display from being stopped by any unauthorized person.

- Click on **Apply** when you are done editing this setting
- Create another user called **Operator**, specify a password, and add this new user to group **Users**
- Open Operator's **Application Actions** and **uncheck** all his privileges. The user privileges will completely follow the group settings.

NOTE: Users have certain privileges either allowed or denied them. When users are added to a group they are given the additional privileges of the group. However, should there be more privileges granted to the user they will always take precedence over group privileges in setting access.

Account Policy

Account policies are a set of rules that you can apply to users. It dictates items such as password complexity, password life, account lockout and other items. You can create a new

Account Policy by right-clicking on Account Policies folder and select **+ Account Policy**. Once you create the policy, you can associate the policy to a user in the **User Properties**. By default, when you create a user, it uses the **Default Policy**.

Testing the Configuration

- Open Workbench Start Menu and click on **Log In\Log Out**. It will open **Security Login** dialog
- Select user Operator, type the password and click Log In button

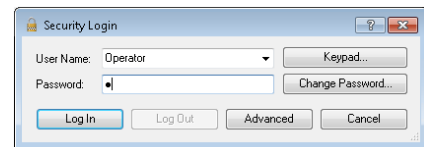


Figure 7 - Security Login Dialog

- In **GraphWorX64** group browse for a GraphWorX64 display
- Right-click on a display (e.g. **GenDemo** → **StartGenDemo** display) and select **Edit display**. The display will open in configuration mode

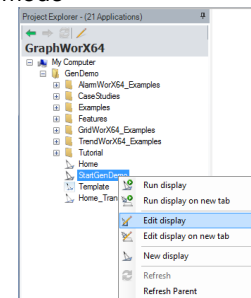


Figure 8 - Open a GraphWorX64 Display in Configuration Mode

- Click on the **Runtime** button at the upper right-hand corner and display will go to Runtime mode.
- Now, try clicking on the **Configure** button. You will not be able to go back to Configuration mode due to Security Privileges.
- Log in as the **Admin** user and the Configure button will be enabled again

This was just an overview of GENESIS64 Security basic concepts. For more detailed topics, please refer to the help documentation or the *GENESIS64 Security – Retrieving Advanced Security Information* Application Note.