

# RTView

## - Role-Based Security

## Role-Based Security

- RTView allows users to limit access to displays based on their roles.
- Role-based security is available in the following RTView components:
  - Display Builder
  - Display Viewer Application
  - Display Viewer Applet
  - Display Server
  - TIBCO EMS Manager
  - Hawk Monitor Demo
  - Rendezvous Monitor Demo
- Requires a set of user definitions and role definitions
  - Simple scenario: users.xml, roles.xml
  - Enterprise scenario: customization of security handlers to integrate with LDAP

## Role-Based Security

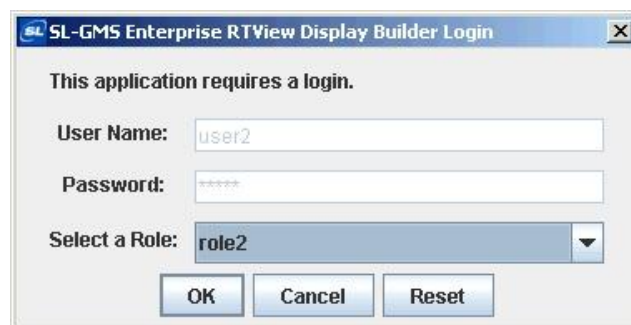
- By default, security is enabled. The default username and password is  
Username: admin  
Password: admin
- To disable security,
  - Start Display Builder
  - Select Tools>Options>Security in Display Builder.
  - Uncheck “Login enabled”
  - Save Options
- To enable security,
  - Bring up RTView Command Prompt
  - Type “run\_builder.bat –login”
  - Select Tools>Options
  - Save Options

Security setting will be saved under OPTIONS.ini

## Role-Based Security – User Definitions

### Creating User Definitions Using users.xml

- By default, RTView will look for user definitions in users.xml in the directory where your application or applet started.
- You may specify another file name or path for your user definition file in the Security tab of the Display Builder Application Options dialog.
- Each user definition must contain
  - Name: The user name.
  - Password: The password for this user.
  - Role: You may assign multiple roles per user but at least one role is required.
  - Subs (optional): Set initial substitutions for this user, specifying name and value.
- For multiple roles, the login dialog will prompt user to select a role before continuing.



The screenshot shows a login dialog box titled "SL-GMS Enterprise RTView Display Builder Login". The dialog contains the following fields and controls:

- A message: "This application requires a login."
- A "User Name:" label followed by a text input field containing "user2".
- A "Password:" label followed by a password input field containing "\*\*\*\*\*".
- A "Select a Role:" label followed by a dropdown menu showing "role2".
- Three buttons at the bottom: "OK", "Cancel", and "Reset".

## Role-Based Security - Example

Example of users.xml

```
<?xml version="1.0"?>
<users xmlns="www.sl.com" >
  <user>
    <name>joe</name>
    <password>mypasswd</password>
    <sub name="$plant" value="Chicago" />
    <sub name="$visFlag" value="1" />
    <role>admin</role>
    <role>operator</role>
  </user>
</users>
```

- Passwords are entered as ascii but can be made encrypted by resaving the file using the Display Builder. Must be in admin mode to do this.

```
run_builder.bat -saveusers
```

## Role-Based Security - Role Definitions

Creating Role Definitions using roles.xml

- By default, RTView will look for role definitions in roles.xml in the directory where your application or applet started.
- You may specify another file name or path for your role definition file in the Security tab of the Display Builder Application Options dialog.
- Each role definition must contain
  - Name: The role name.
  - Displays:
    - Include: Displays to include. Can use wildcards \* or ALL
    - Exclude: Displays to exclude. Can use wildcards \* or ALL
  - Role: You may assign multiple roles per user but at least one role is required.
  - Subs (optional): Set initial substitutions for this role, specifying name and value.
- The displays listed for each role are processed in reverse order, so the last display listed takes precedence over all others.

## Role-Based Security - Example

```
<?xml version="1.0"?>
<roles xmlns="www.sl.com" >
  <role>
    <name>operator</name>
    <displays>
      <include>ALL</include>
      <exclude>admin*.rtv</exclude>
      <sub name="rolesub1" value="value1"/>
      <sub name="rolesub2" value="value2"/>
    </displays>
  </role>
</roles>
```

## Exercises

### Ex 1: Create an users.xml for at least 2 different users

1. Use the users.xml template from this manual or RTView documentation as a starting point. Use text editor to modify contents.
2. Create one user with multiple roles
3. Save users.xml so that passwords are encrypted.

### Ex 2: Create roles.xml

1. Use the roles.xml template from this manual or RTView documentation as a starting point. Use text editor to modify contents.
2. Create entries for each role listed in Ex 1.
3. Create one role that excludes all but one display
4. Create another role that excludes only one display

Note: use displays created in previous training exercises

### Ex 3: Create a role that turns some objects invisible (disabling access)



## Exercises

### Ex 4: Deploy users.xml and roles.xml with the Display Viewer Applet

1. Copy users.xml and roles.xml into your applet directory
2. Invoke your applet

### Ex 5: Deploy users.xml and roles.xml with the Display Server

1. Copy users.xml and roles.xml into the directory where Display Server is run
2. Modify rtvdisplay.properties for Display Servlet to enable login

LoginEnabled                      Set to true to enable role management security. The default is false.

3. Rebuild and redeploy Display Servlet
4. Invoke your Display Server page