

RSView32 v7.50 Display Control

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Overview

This tech-note describes how to use the Cognex In-Sight Display Control on a RSView32 project.

Creating an RSView32 Application

This section describes the basic process for creating an RSView32 project to contain the Cognex In-Sight Display Control and to provide access to certain properties of the Cognex In-Sight Display Control. Building this application consists of four steps:

1. Building the RSView32 project
2. Defining the tags
3. Associating RSView32 tags to the Cognex In-Sight Display Control properties
4. Using the RSView32 objects to manipulate the Cognex In-Sight Display Control

Building the RSView32 Project

This section assumes you have installed Cognex In-Sight software on the PC that will be used to build this project.

1. Start RSView32.
2. Create a new project named "displayexample".
3. In the Project Manager window, select the Edit Mode and expand the Graphics folder. Create a new Display by right-clicking the Display node and select New. This creates a display that can host the Cognex In-Sight Control.

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4. Add the Cognex In-Sight Display Control to the new display by selecting the "Objects" menu and then select "ActiveX Control" menu item. Next drag the mouse to create a rectangle area for the Cognex In-Sight Display Control. After releasing the mouse, select "Cognex In-Sight Display Control" from the "Insert an ActiveX Control" Dialog and click OK. The Cognex In-Sight Display control is now added onto the display.
5. Right-Click the display control and select the following menu item Animation > ActiveX Control > Properties from the context menu. This launches the ActiveX Property Panel. Select the Animation tab. Notice the Animation tab contains all the Cognex In-Sight Display Control properties that are accessible. Make note of the Cognex In-Sight Display Control properties the user wishes to manipulate in this application and their input/output parameter type. For example, the application can manipulate the Cognex In-Sight Display Control's AutoConnectString property, and the property requires a "String" parameter or returns the AutoConnectString as a "String".
6. Add RSView32 objects onto the display to allow for property manipulation. For example, to manipulate a string property add an RSView32 "StringInput" object to the display, to manipulate an integer property add an RSView32 "Numeric Input" object to the display, and to manipulate a boolean property add a "Button" object to the display.
7. Save the display as "DisplayExample.gfx" by selecting the "File" menu and select "Save" menu item.

Defining the Tags

1. In the Project Manager window, select the Edit Mode tab and expand the system node. Double-click the "Tag Database" node. This launches the Tag Database Editor. The Tag Database Editor allows user to create RSView32 tags which can be used to associate with the Cognex In-Sight Display Control properties.
2. In the Tag Database Editor, define a tag for every Cognex In-Sight Display Control property the user wishes to associate.
3. Tags can be defined by selecting an empty row in the table of the Tag Database Editor. The tag names are arbitrary.
 - For tag type, select String for properties that require a string as an input parameter. The user has the option to set the string limit. Select Analog for properties that require a floating point value or an integer value as an input parameter. The user has the option to set the tag minimum, maximum, scale, offset, units, or data type. Select Digital for properties that require a boolean value as an input parameter. The user has the option to set the Off Label, and On Label.
 - For tag description, enter a brief description of the tag.
 - The tag type should be Memory (for local variables)

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- The user has an option of setting an initial value for the tag.
- After entering the tag information click the Accept button to save the changes. A new tag can be created by selecting the next empty row in the table of the Tag Database Editor. After all tags have been created, click Close to close the Tag Database Editor.

Associating RSView32 Tags to the Cognex In-Sight Display Control Properties

1. Right-click the RSView32 objects on the display and select "Edit" (Ex: "Edit InputString1") to associate them with the Cognex In-Sight Display Control. This will launch the RSView32 objects properties. Each object has a "Tag Name" property. Assign a RSView32 tag to the object's Tag Name property. Click the "..." button to select the tag. For button objects, the Tag Name property is located on the "Action" tab of the object properties.
2. Right-click the Cognex In-Sight Display Control to open the context menu. From the context menu, select Animation > ActiveX Control > Properties to launch the Cognex In-Sight Display Control property. On the ActiveX Property Panel, select the Animation tab.
3. In the Animation tab of the Cognex In-Sight Display Control Property Panel, all accessible properties are listed on the left under the name column, and tags can be assigned to each property in the right under the Tag column. To assign a RSView32 tag to a property, click the "..." button, then select a tag. Associate each RSView32 tags with the desire Cognex In-Sight Display Control properties. The RSView32 tags are now associated with the RSView32 objects and the Cognex In-Sight Display Control properties.
4. Save the display by selecting the File menu then select Save.

Using the RSView32 objects to Manipulate the Cognex In-Sight Display Control

This section assumes that you have the Cognex In-Sight Explorer software installed on the PC, the software is launched, and the application emulator is accessible.

1. Run the display by selecting the View menu file then select the "Run Test" menu item. This will put the display in run mode.
2. Set the RSView32 tag associated with the Display Control's AutoConnectString to "127.0.0.1,admin". This will connect the Cognex In-Sight Display Control to the local emulator in the Cognex In-Sight Explorer application. The Cognex In-Sight Display Control can be connected to any Cognex In-Sight sensors or emulator. To connect to a sensor or a remote emulator enter the AutoConnectString in the following format "<HostName>, <UserName>, <Password>, <ForceConnect>". The last two parameters are optional.
3. You can manipulate other Cognex In-Sight Display Control properties by changing the associated RSView32 tags through the RSView32 objects on the display.