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1. Overview

This document intends to discuss how to create an OPC connection to the server from Siemens WinCC.

1.1 Creating a New WinCC Project

The following instructions use Siemens WinCC version 4.0.2.

1. In KEPServerEX, start the "simdemo.opf" project. Then, open WinCC to start a new project.

2. If there are no existing projects, the Create a New Project dialog will be invoked. Otherwise, click File | New.

3. Next, select Single-User System. Then, click OK.

4. In Project Name, specify a name for the project. In this example, "KEPServerEX_Connect" is used.

5. In New Subfolder, specify a name for the subfolder. In this example, "KEPServerEX_Connect" is used.

6. Once finished, click Create.
1.2 Adding a New Driver

1. In the Control Center tree hierarchy, expand KEPServerEX_Connect. Then, right-click on Tag Management and select Add New Driver.

2. Select "OPC.chn" and then click Open.

3. Next, expand Tag Management | OPC. Then, right-click on OPC Groups (OPCHN Unit #1) and select Properties.

4. In Channel Unit Properties, click New.
5. In **Connection Properties**, beneath **Name**, enter a name for the OPC connection. In this example, "EX_Group1" is used. The computer name should stay "TEST_NT".

6. Once finished filling in the **General Information** tab, click to open **OPC Group Setting**.

   ![Connection Properties](image)

5. In **OPC Server Name**, enter "KEPware.KEPServerEX.V4".

   ![Connection Properties](image)

6. Next, click **Test Server** to ensure that the Control Center can invoke the server.

7. In **Read Data From**, select the data source from which to receive data. In this example, select **Cache**.

8. Once finished, click **OK**.
9. Next, click OK.

1.3 Creating a Tag

1. In the KEPServerEX_Connect tree hierarchy, right-click on EX_Group1 and then select New Tag.
2. In **Name**, specify a name for the new item. In this example, "Tag_1" is used. This is a user-defined tag that has been predefined in KEPServerEX.

![Tag properties](image)

3. To define the tag item, click **Select**.

![Address properties](image)

4. In **Item Name**, enter the address of the tag item.

   **Note:** Users may also request a Dynamic Tag by replacing the tag name with an actual address. For example, "Channel_1.Device_1.R0001".
5. In **Data Type**, select the most appropriate data type for the tag item.
6. Then, click **OK**.

1.4 Creating a Graphic Display

1. In the **KEPServerEX_Connect** tree hierarchy, expand **Editor**. Then, select **Graphic Designer**.

2. Next, right-click on "NewPdl0.pdl" and select **Rename Picture**. Rename the picture "Start.Pdl". This is the name that WinCC will look for when it executes the Runtime.

3. Once finished, click **OK**.

4. Next, double-click on the picture's name to invoke the **Graphics Designer**.
5. Next, locate **Object Palette** and select **I/O Field Object**. Then, right-click on the picture window to create the I/O field object that will display data during Runtime.

**Note:** In order for the display object to function correctly, a link must be created from the object to defined tag item.

6. Right-click on the **I/O Field Object** and then select **Configuration Dialog**.

7. In **I/O Configuration** dialog, click the **Tag** icon. In the **Select Tag** dialog, select a tag and then click **OK**.

8. Click **OK** again to return to the **Graphics Designer**.
1.5 Displaying Tag Data

1. In the Graphics Designer or the Control Center, press the **Play** icon.

   **Note:** To test, locate the Status Bar in KEPServerEX. At least one Active Item should be visible.

2. **Using Kepware's OPC Client**

   Kepware provides an OPC client application with each installation of KEPServerEX for testing purposes. For more information, refer to the OPC Quick Client help file.