Kepware Technologies
Client Connectivity Guide for Siemens WinCC

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Version 1.003

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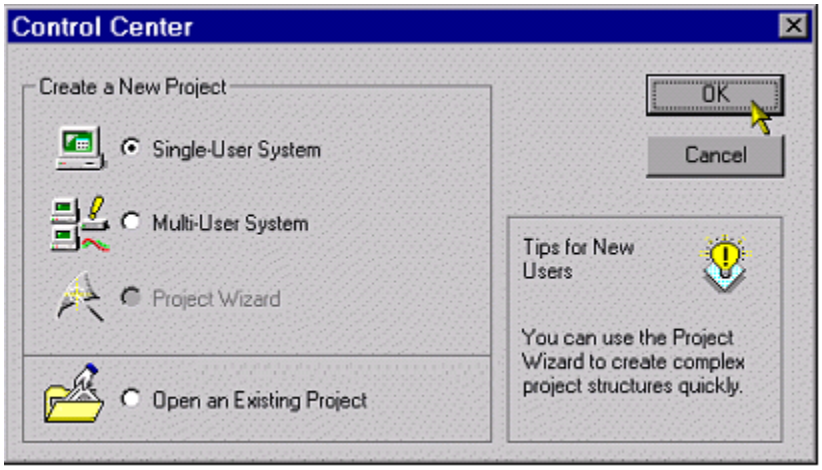
1.Overview

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

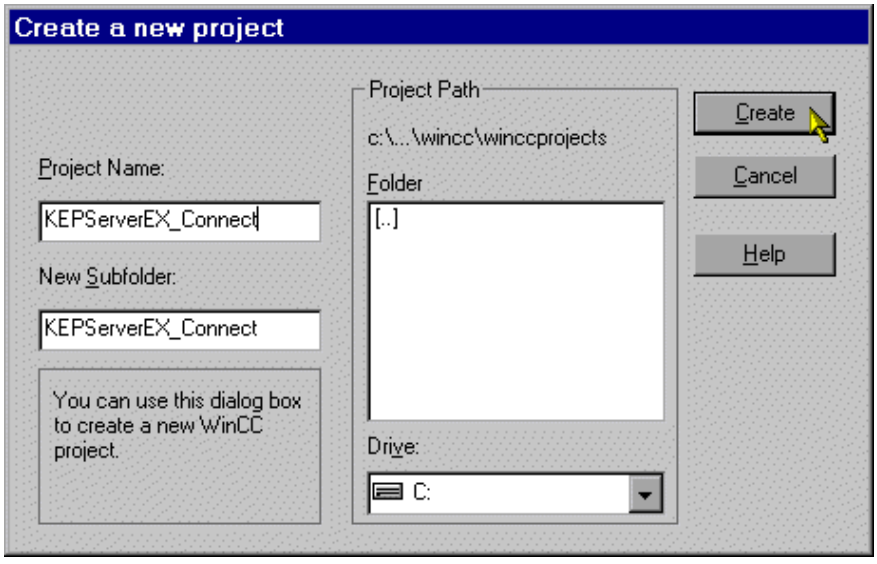
1.1 Creating a New WinCC Project

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**.



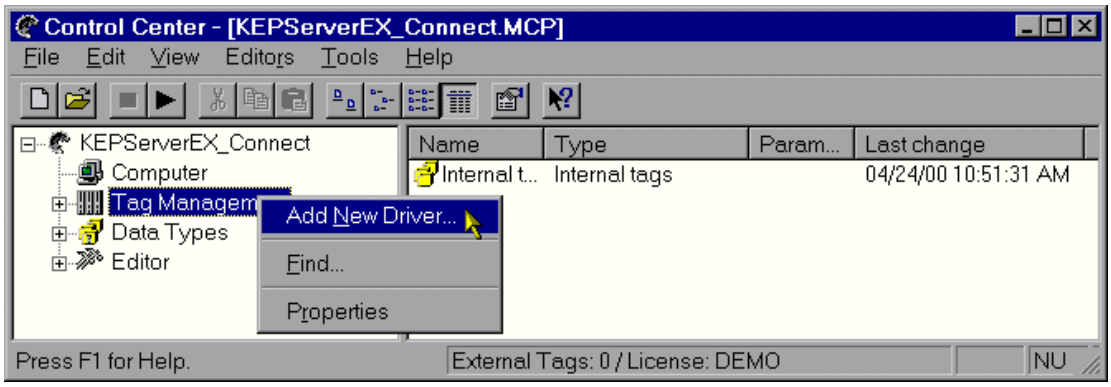
4. In **Project Name**, specify a name for the project. In this example, "KEPServerEX_Connect" is used.
5. In **New Subfolder**, specify a name for the subfolder. In this example, "KEPServerEX_Connect" is used.



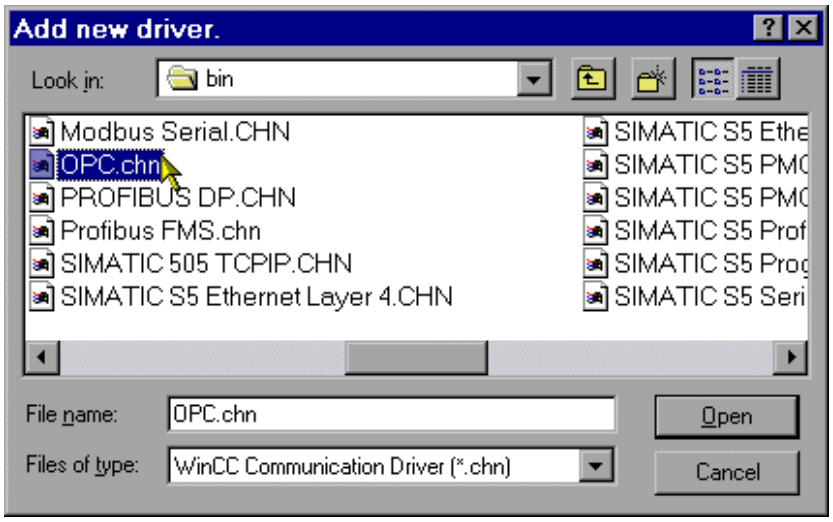
6. Once finished, click **Create**.

1.2 Adding a New Driver

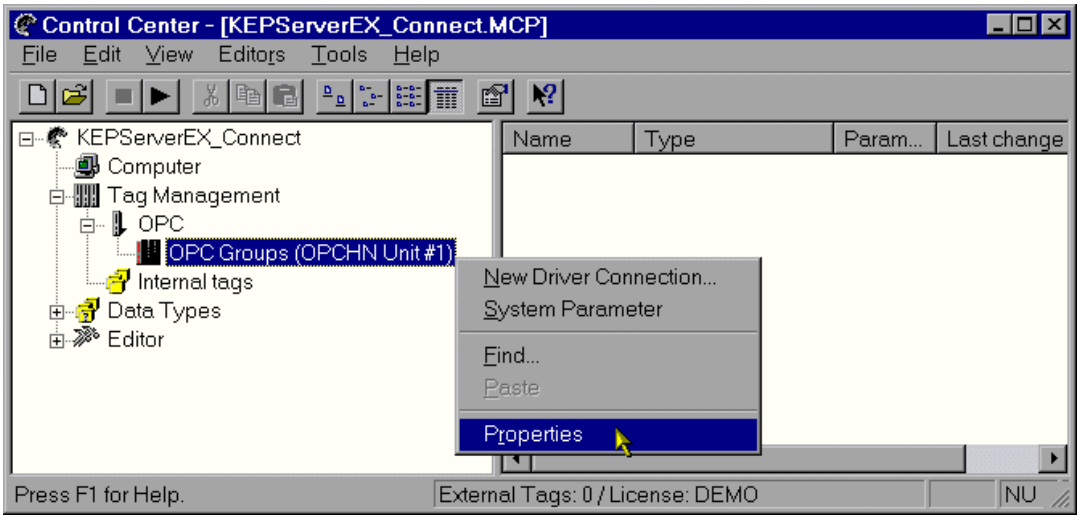
1. In the **Control Center** tree hierarchy, expand **KEPServerEX_Connect**. Then, right-click on **Tag Management** and select **Add New Driver**.



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

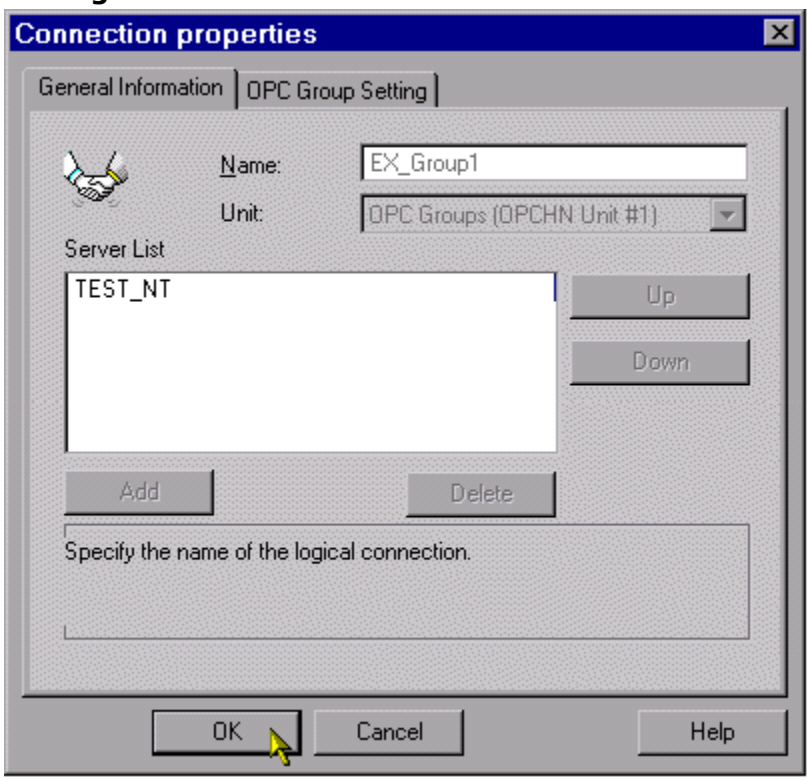


3. Next, expand **Tag Management** | **OPC**. Then, right-click on **OPC Groups (OPCHN Unit #1)** and select **Properties**.

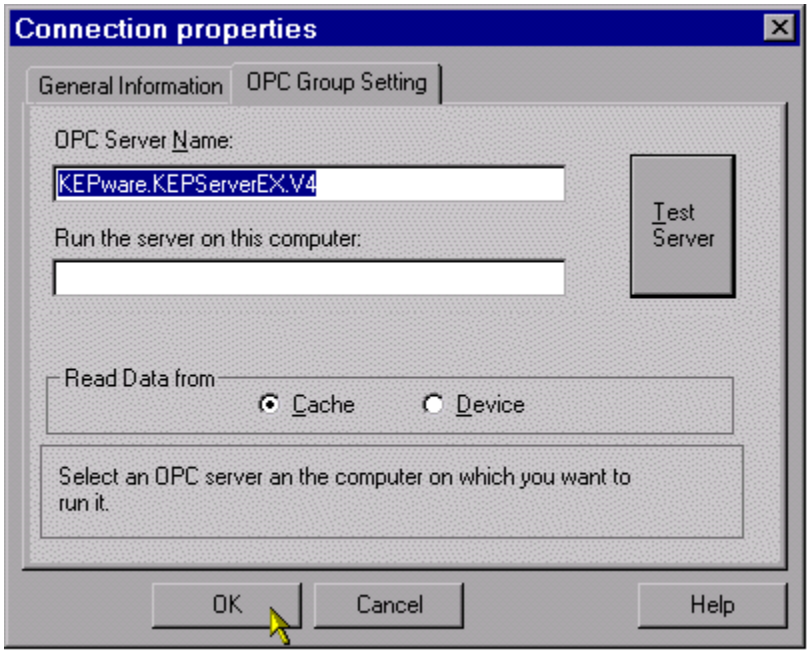


4. In **Channel Unit Properties**, click **New**.

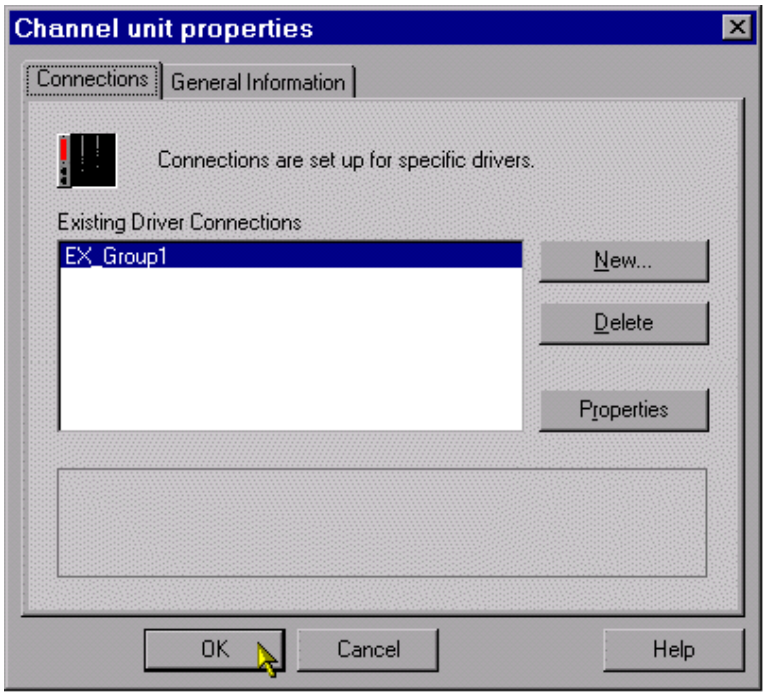
5. In **Connection Properties**, beneath **Name**, enter a name for the OPC connection. In this example, "EX_Group1" is used. The computer name should stay "TEST_NT".
6. Once finished filling in the **General Information** tab, click to open **OPC Group Setting**.



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



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**.

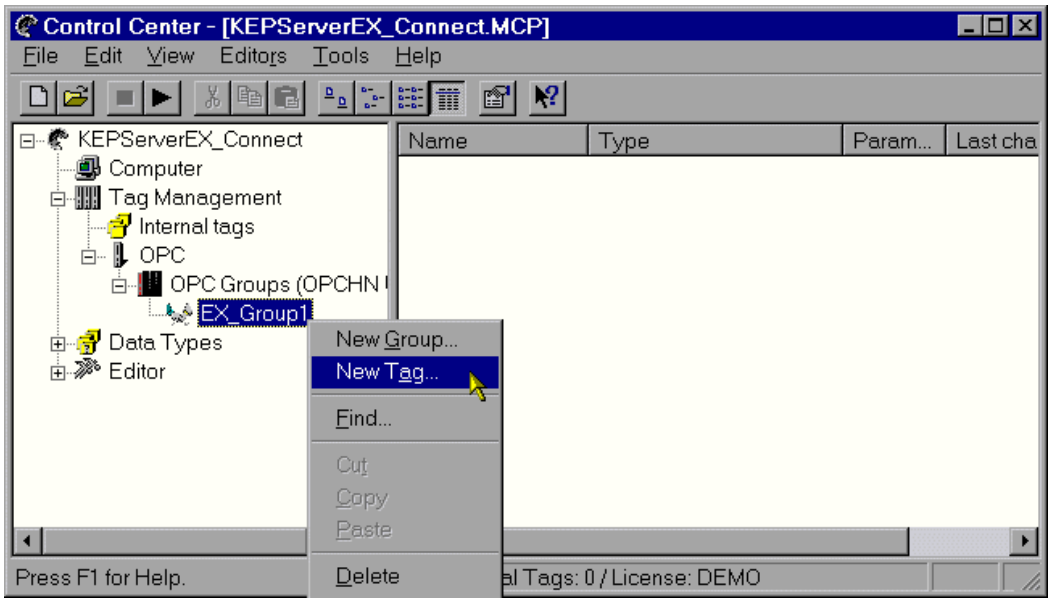


Note: Channel Unit Properties should now display the newly created OPC group connection "EX_Group1".

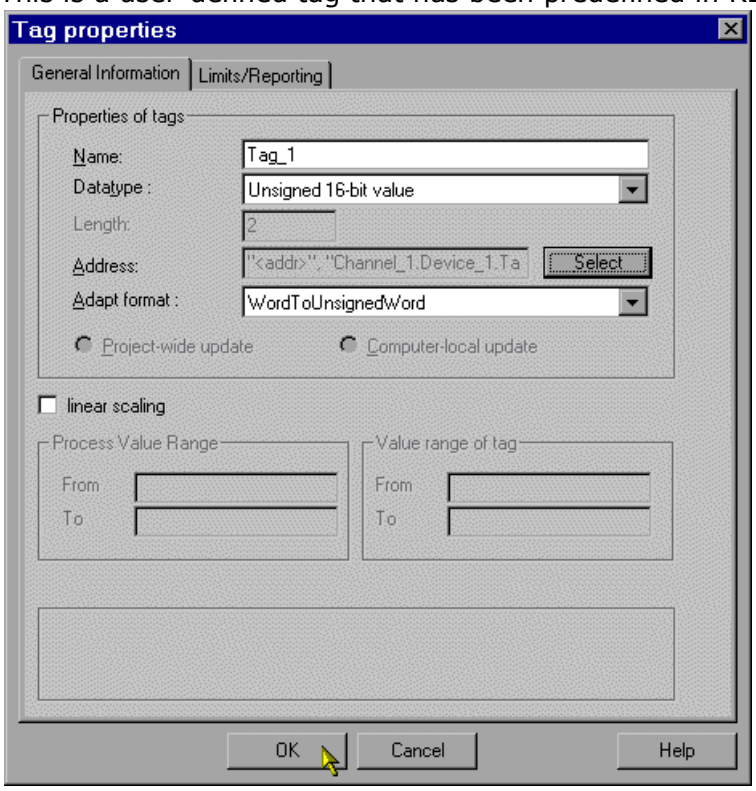
9. Next, click **OK**.

1.3 Creating a Tag

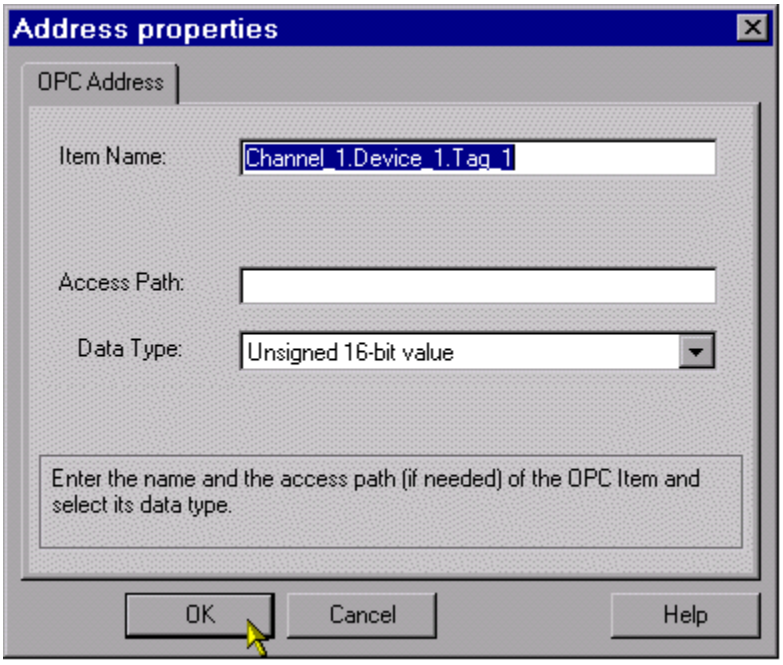
1. In the **KEPServerEX_Connect** tree hierarchy, right-click on **EX_Group1** and then select **New Tag**.



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.



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



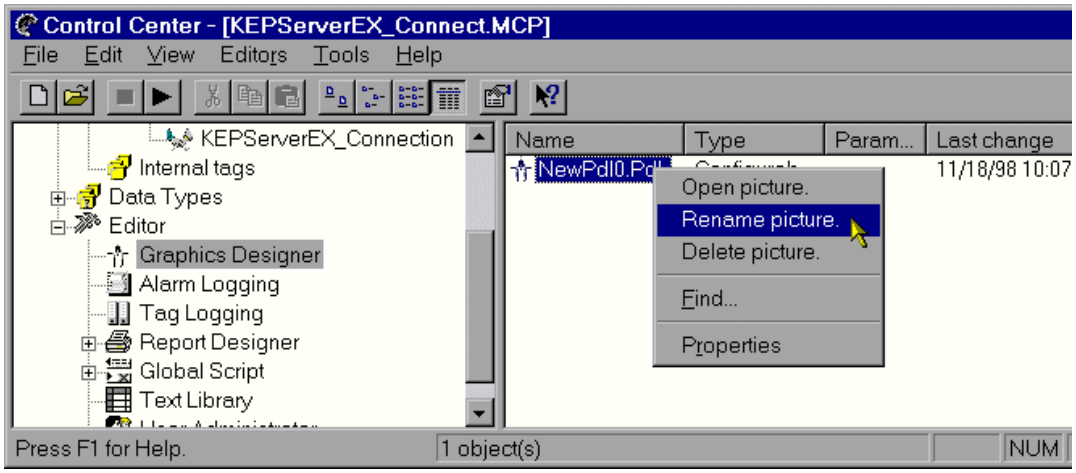
4. In **Item Name**, enter the address of the tag item.

   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**.

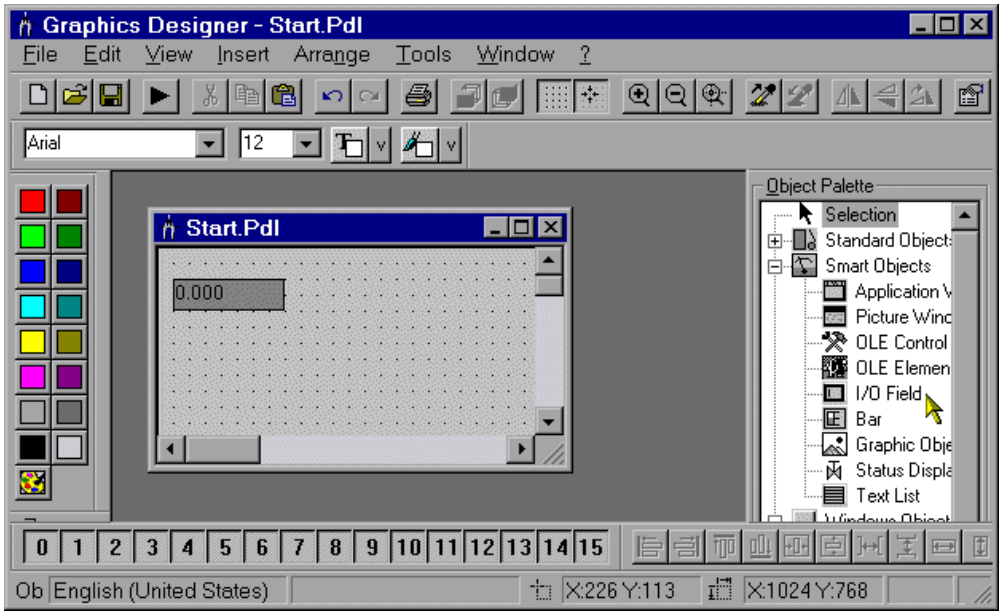
1.4 Creating a Graphic Display

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**.

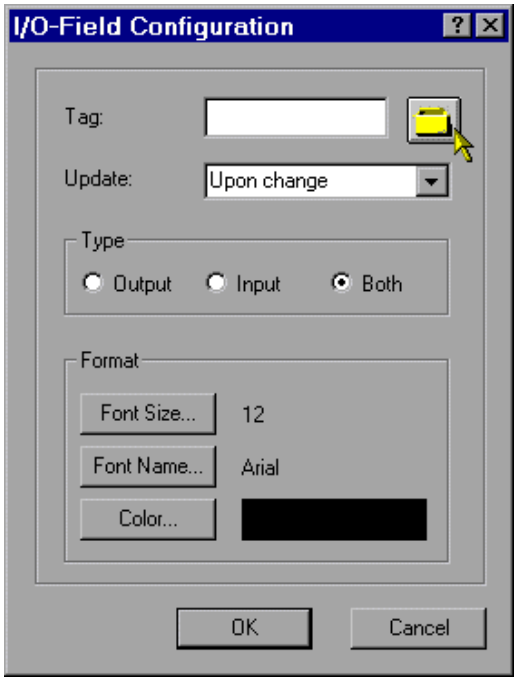


5. Next, locate **Object Palette** and select **I/O Field Object**. Then, right-click on the picture window to create the I/O field object that will display data during Runtime.

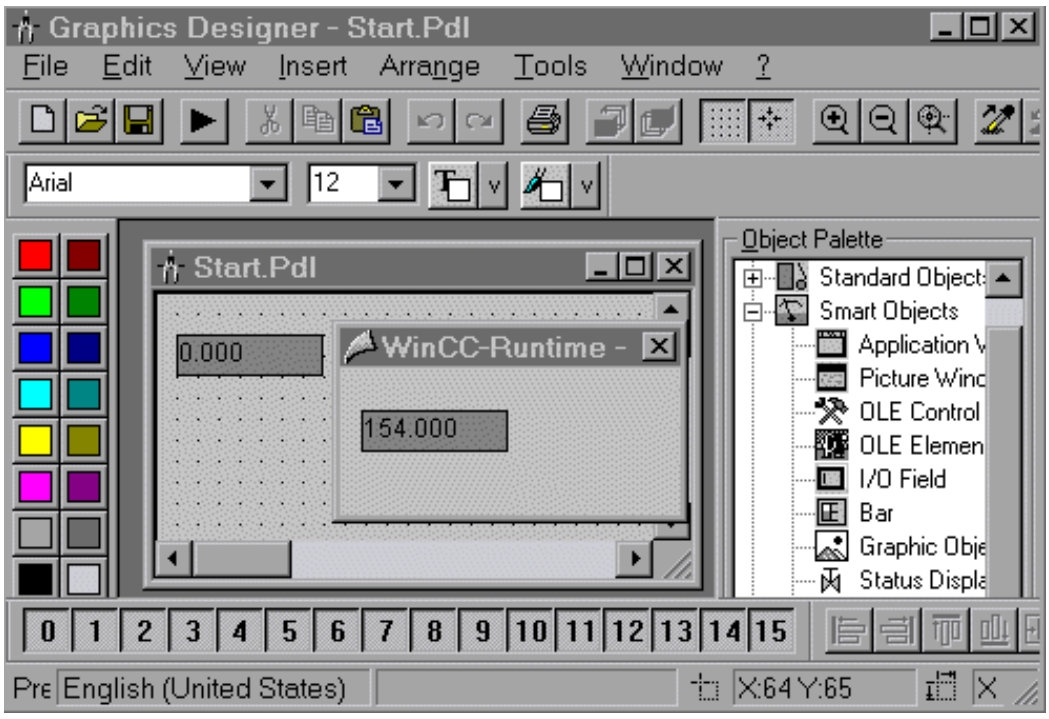
   Note: In order for the display object to function correctly, a link must be created from the object to defined tag item.

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**.



Note: The display object is now linked to the tag item.

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.