



# Kepware Technologies

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## Client Connectivity Guide for Siemens WinCC

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# Table of Contents

1.	Overview.....	1
1.1	Creating a New WinCC Project .....	1
1.2	Adding a New Driver.....	2
1.3	Creating a Tag .....	4
1.4	Creating a Graphic Display .....	6
1.5	Displaying Tag Data .....	8
2.	Using Kepware's OPC Client.....	8

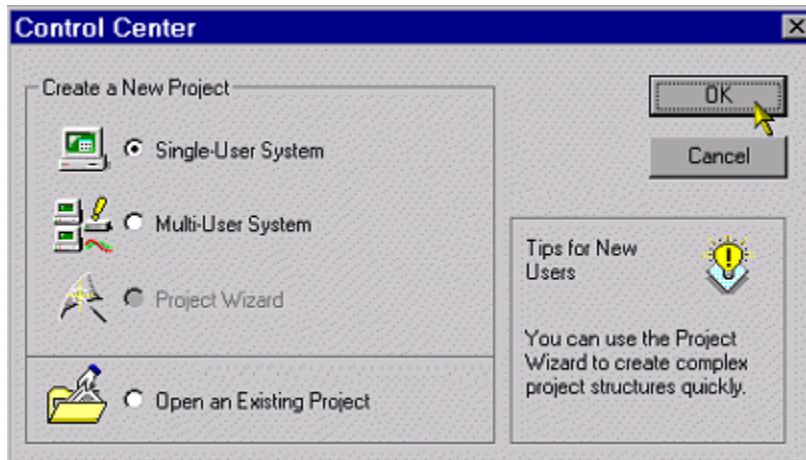
# 1. Overview

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

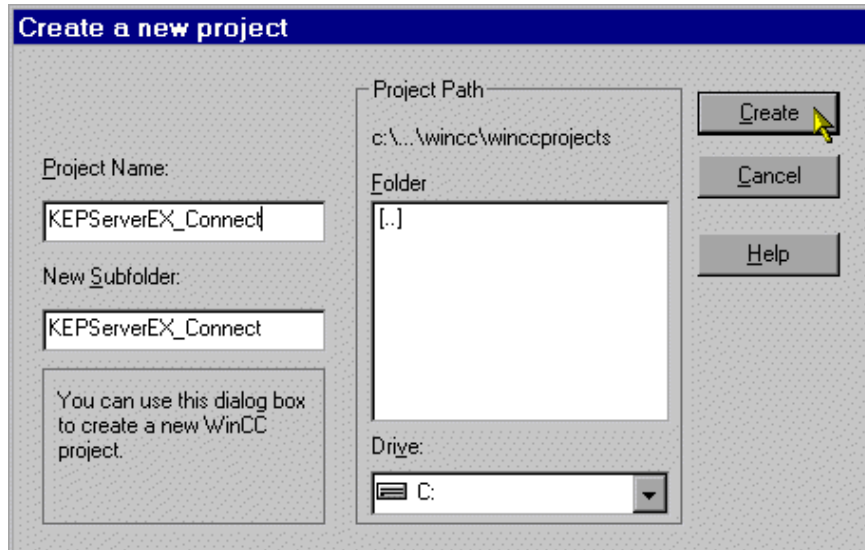
## 1.1 Creating a New WinCC Project

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**.



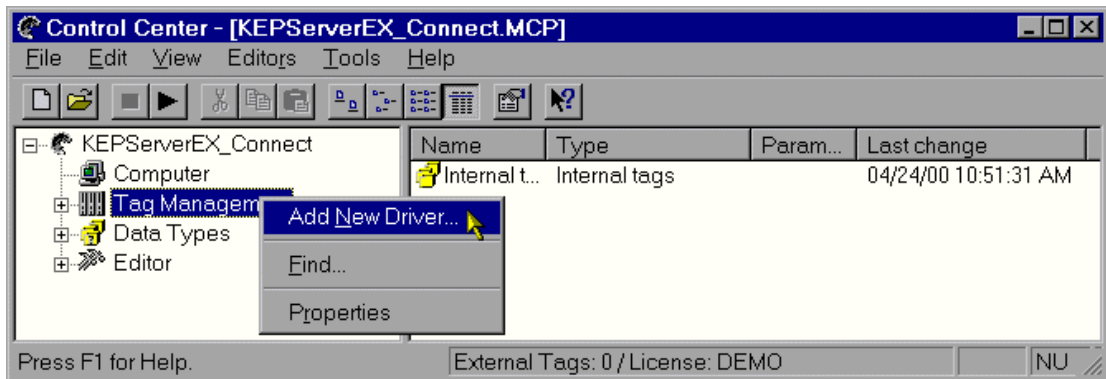
4. In **Project Name**, specify a name for the project. In this example, "KEPServerEX\_Connect" is used.
5. In **New Subfolder**, specify a name for the subfolder. In this example, "KEPServerEX\_Connect" is used.



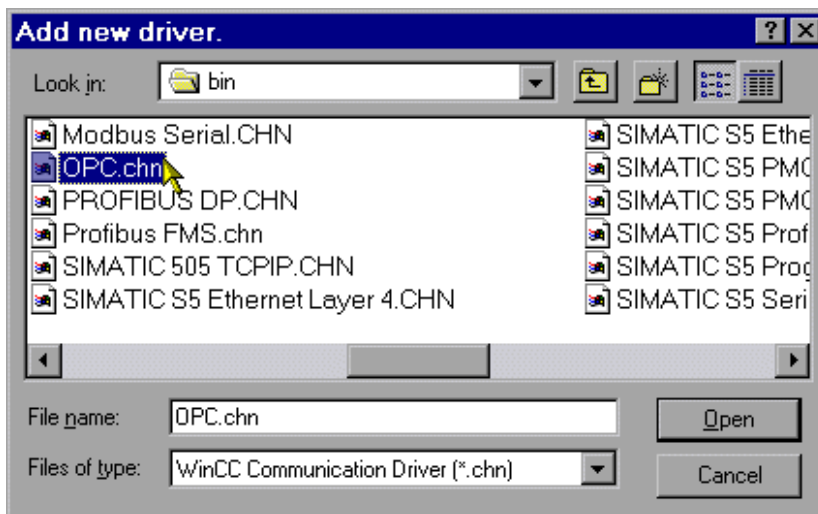
6. Once finished, click **Create**.

## 1.2 Adding a New Driver

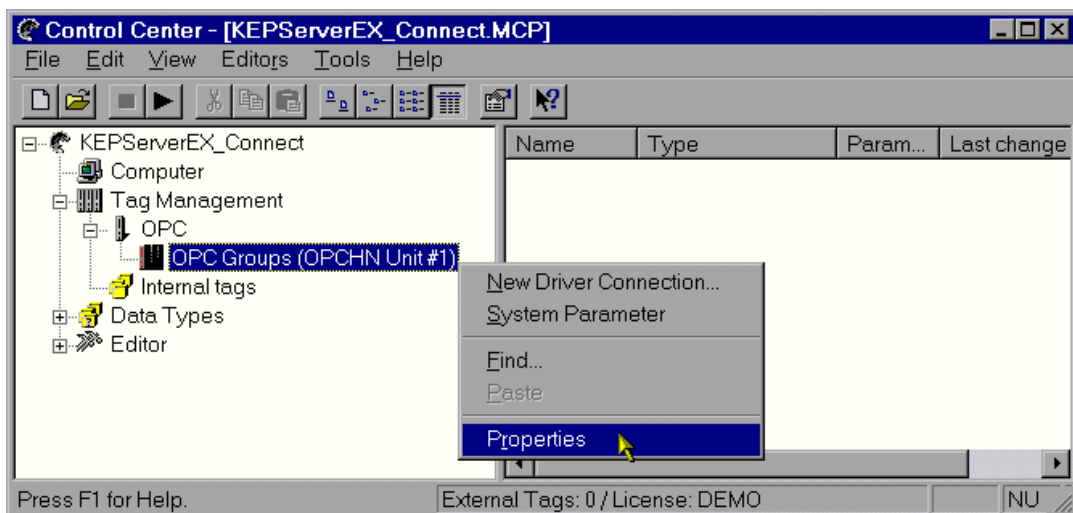
1. In the **Control Center** tree hierarchy, expand **KEPServerEX\_Connect**. Then, right-click on **Tag Management** and select **Add New Driver**.



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

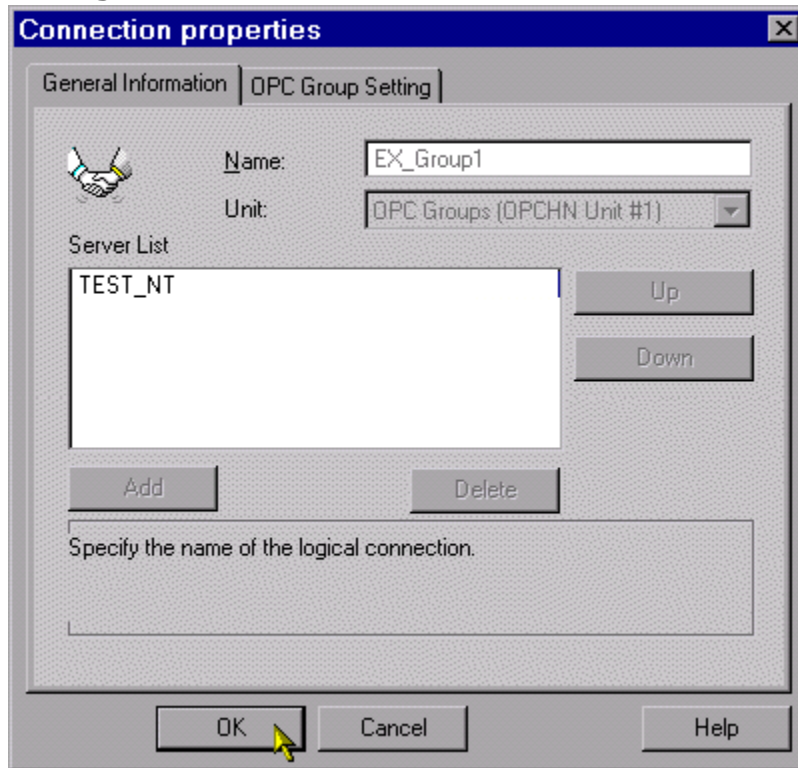


3. Next, expand **Tag Management | OPC**. Then, right-click on **OPC Groups (OPCHN Unit #1)** and select **Properties**.

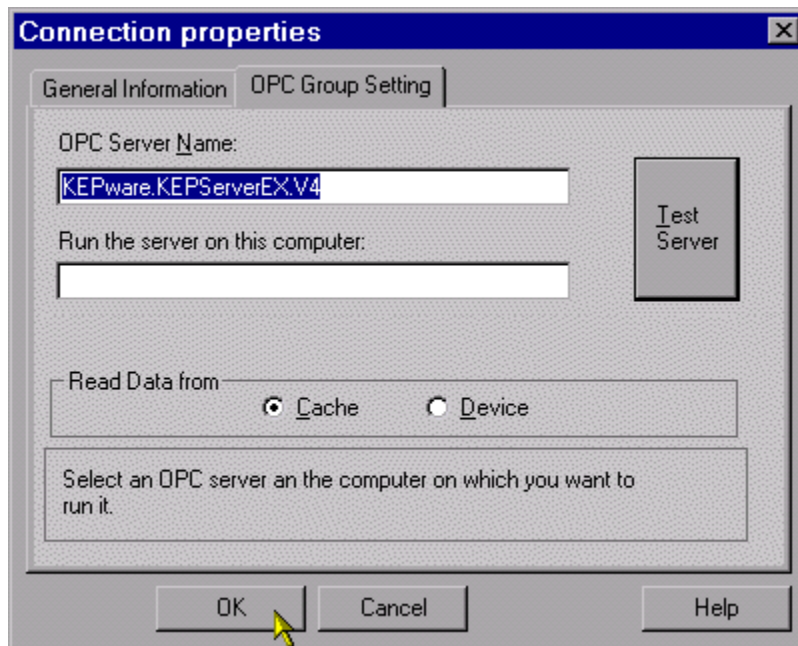


4. In **Channel Unit Properties**, click **New**.

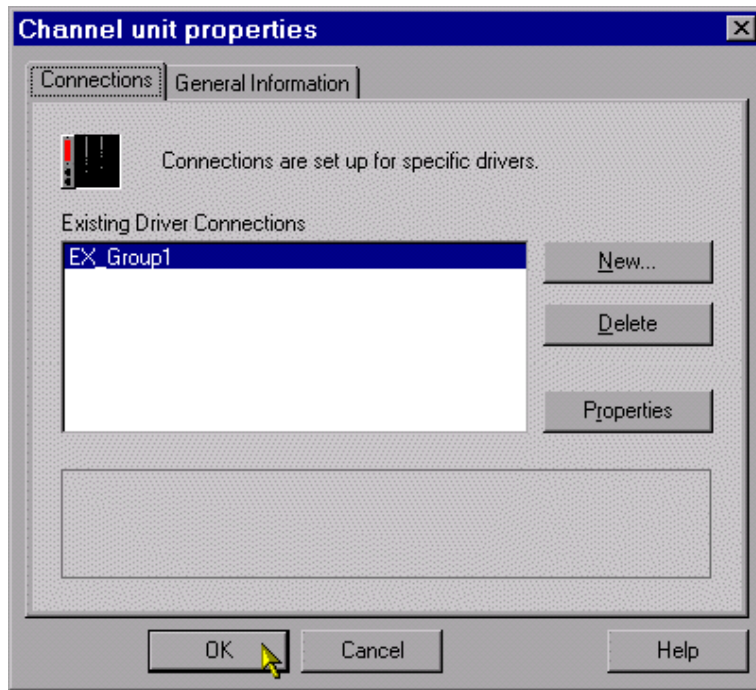
5. In **Connection Properties**, beneath **Name**, enter a name for the OPC connection. In this example, "EX\_Group1" is used. The computer name should stay "TEST\_NT".
6. Once finished filling in the **General Information** tab, click to open **OPC Group Setting**.



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**.

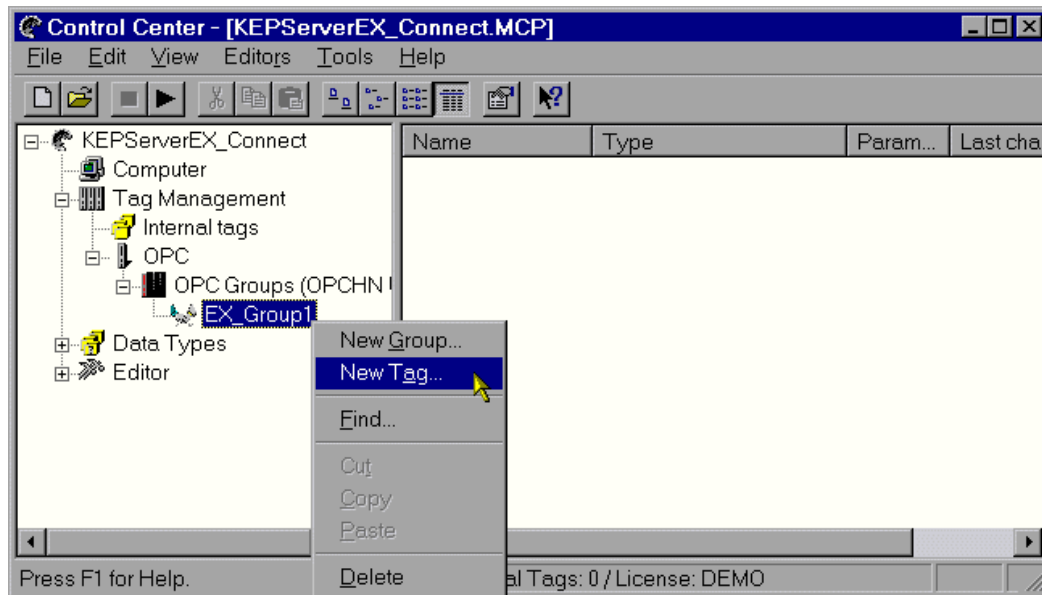


**Note: Channel Unit Properties** should now display the newly created OPC group connection "EX\_Group1".

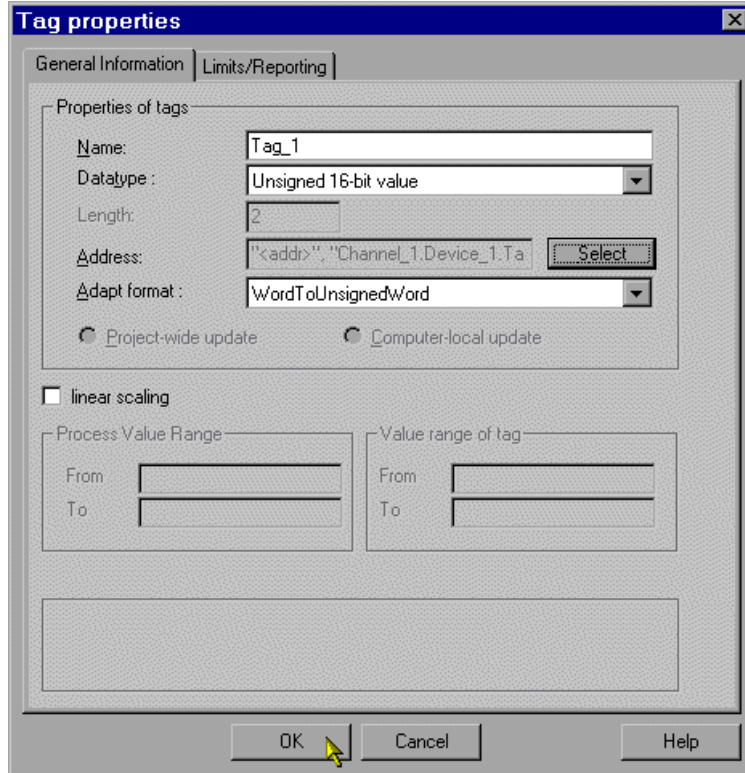
9. Next, click **OK**.

### 1.3 Creating a Tag

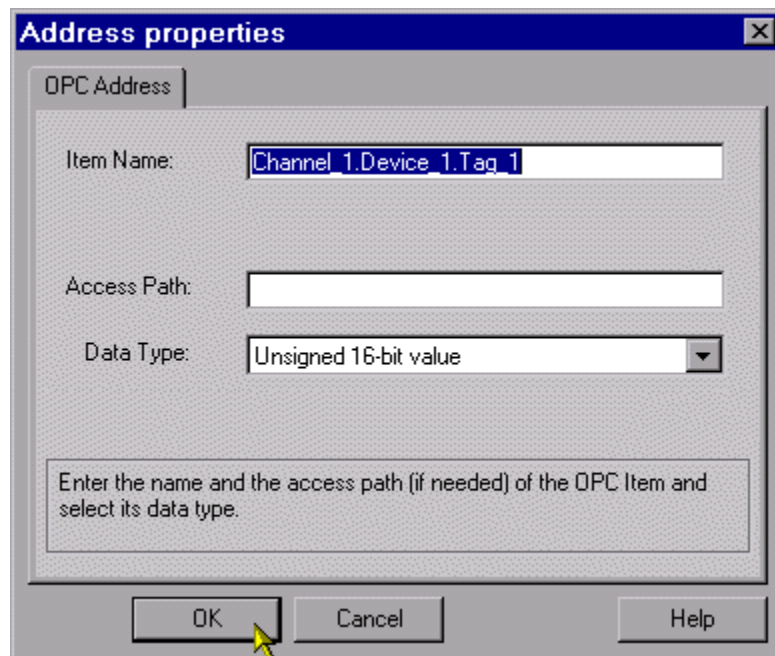
1. In the **KEPServerEX\_Connect** tree hierarchy, right-click on **EX\_Group1** and then select **New Tag**.



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**.



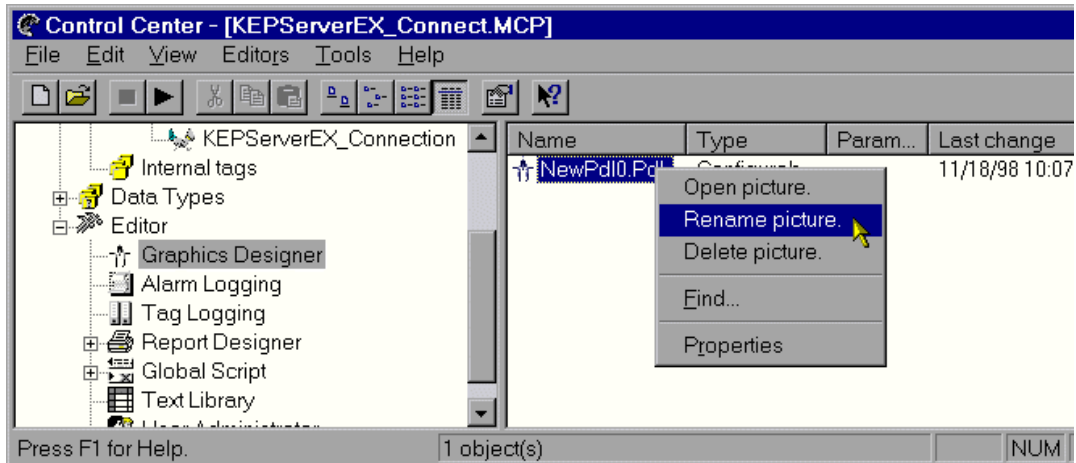
4. In **Item Name**, enter the address of the tag item.

**Note:** Users may also request a Dynamic Tag by replacing the tag name with an actual address. For example, "Channel\_1.Device\_1.R0001".

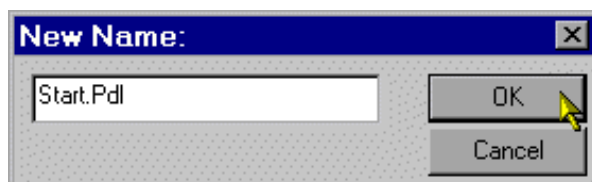
5. In **Data Type**, select the most appropriate data type for the tag item.
6. Then, click **OK**.

## 1.4 Creating a Graphic Display

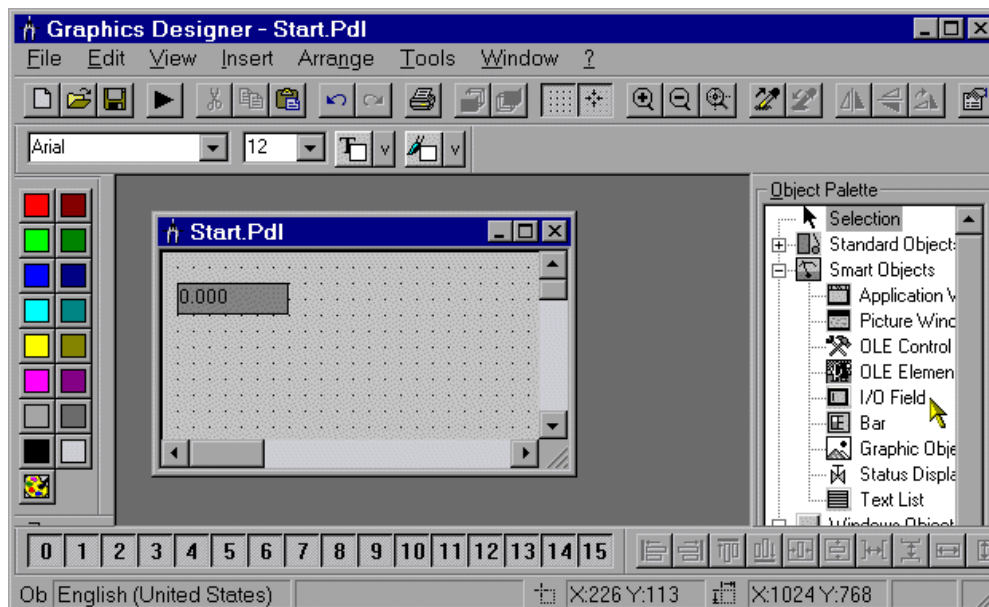
1. In the **KEPServerEX\_Connect** tree hierarchy, expand **Editor**. Then, select **Graphic Designer**.



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**.

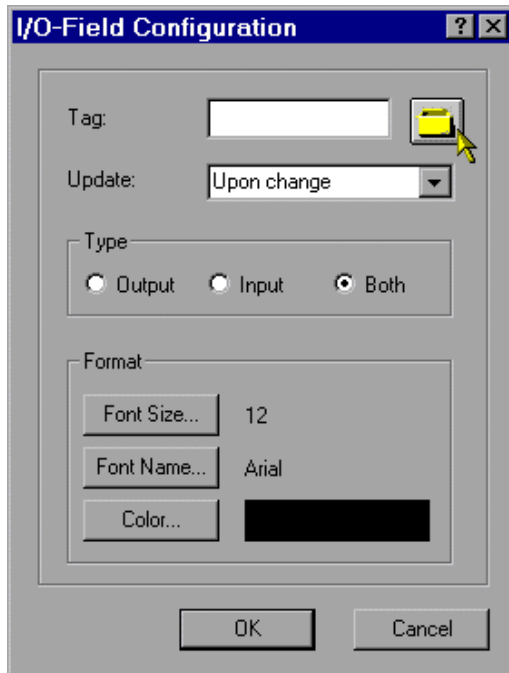




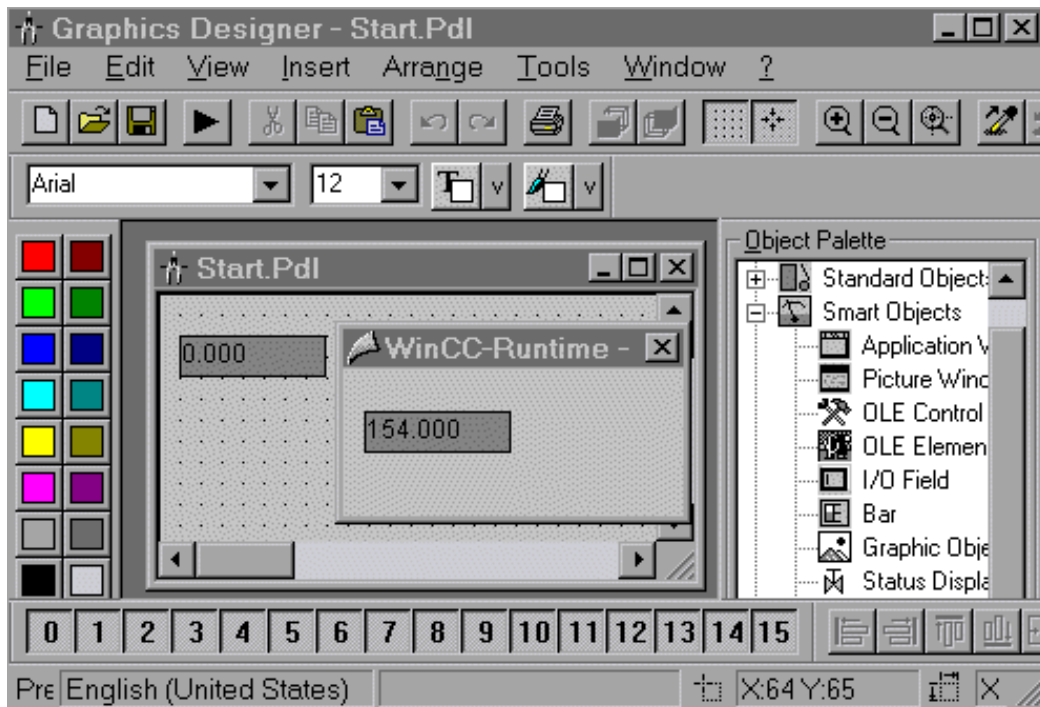
- Next, locate **Object Palette** and select **I/O Field Object**. Then, right-click on the picture window to create the I/O field object that will display data during Runtime.

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

- Right-click on the **I/O Field Object** and then select **Configuration Dialog**.
- In **I/O Configuration** dialog, click the **Tag** icon. In the **Select Tag** dialog, select a tag and then click **OK**.



- 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.