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## Introduction to TrendWorX32 Examples

The GENESIS32 installation includes a set of examples for the TrendWorX32 Viewer ActiveX. The examples are located in the **C:\Program Files\ICONICS\GENESIS-32\Examples\TrendWorX32 Examples** directory. The "TrendWorX32 Examples" directory contains the following folders:

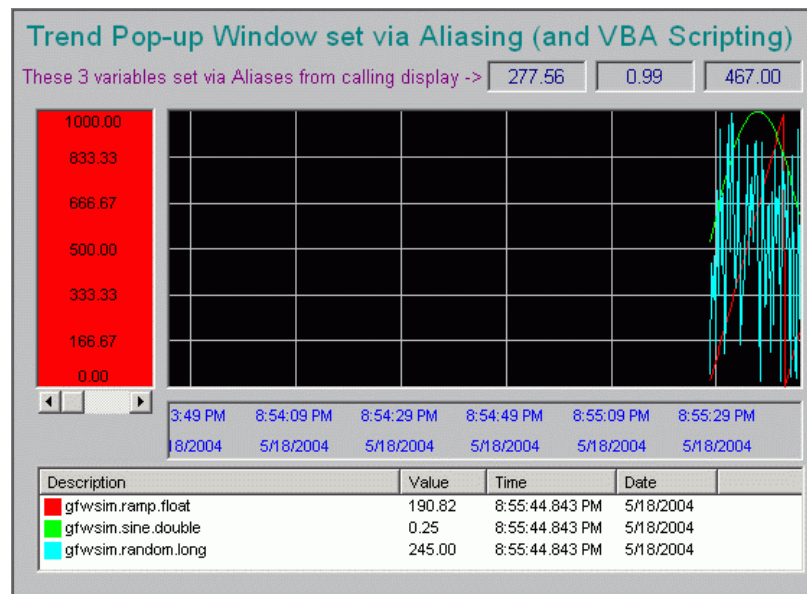
- Aliasing
- Excel Templates
- Real-Time Trend Configuration
- TrendWorX32 Backgrounds
- TrendWorX32 VBA Examples
- TrendWorX32 Data Logging and Reporting
- VBScript Examples

**Note:** Each of these folders contains a text file that provides a quick reference to the examples in the folders.

## Aliasing

The files in the "Aliasing" folder are example files that demonstrate the use of the OLE Automation interface of the TrendWorX32 Viewer ActiveX within a VBA-enabled application, such as GraphWorX32, to do aliasing. To use this demo, do the following:

1. Open GraphWorX32 from the Windows **Programs > ICONICS GENESIS32 > GraphWorX32** menu.
2. Open the "TrendAliasMain.gdf" display in the "Aliasing" folder.
3. Enter the display into runtime mode.
4. Click on the buttons in the GraphWorX32 display to see the effects of aliasing.



Aliasing Example

## Excel Templates

The "EXCEL Templates" folder contains example Microsoft Excel templates that can be used when creating Excel workbooks to be used with TrendWorX32 Reporting:

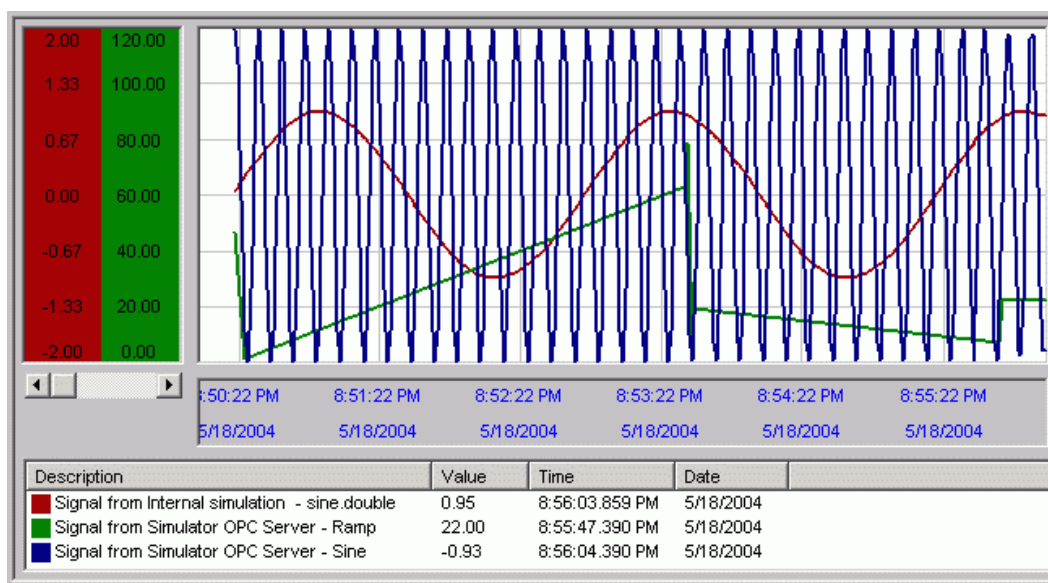
- Production Daily Yield
- Production Down Time
- Production Schedule

## Real-Time Trend Configuration

The files in the "Real Time Trend Configuration" folder demonstrate the use of the OLE Automation interface of the TrendWorX32 Viewer ActiveX within a VBA-enabled application, such as GraphWorX32. It demonstrates how to add pens "on the fly" by reading the pen configuration from a Microsoft Access database (.mdb) file and utilizing the OLE Automation properties of the TrendWorX32 ActiveX through VBA scripts.

To use this demo:

1. Make sure that none of the files in this folder has a read-only attribute.
2. Open GraphWorX32 from the Windows **Programs > ICONICS GENESIS32 > GraphWorX32** menu.
3. Load the "StartDemo.gdf" display.
4. Enter the display into runtime mode.
5. Click on the buttons in the GraphWorX32 display to switch displays and dynamically configure trend displays.



Real Time Trend Configuration Example

## TrendWorX32 Backgrounds

The "TrendWorX32 Backgrounds" folder contains several image files that can be used as backgrounds for the TrendWorX Viewer ActiveX display.

## TrendWorX32 Data Logging and Reporting

The "TrendWorX32 Data Logging and Reporting" folder contains sample TrendWorX32 data-logging configurations, a sample historical database, as well as sample reporting and historical replay displays.

To prepare for the examples, you must:

- Set the GENESIS32 working directory to be "TrendWorX32 Examples\TrendWorX Data Logging and Reporting," where the examples are installed. (For example, you can use the **Set Working Directory** command in the **Tools** menu of the TrendWorX32 Container.
- Make sure that none of the files in this folder has a read-only attribute.

To use the data-logging example, do the following:

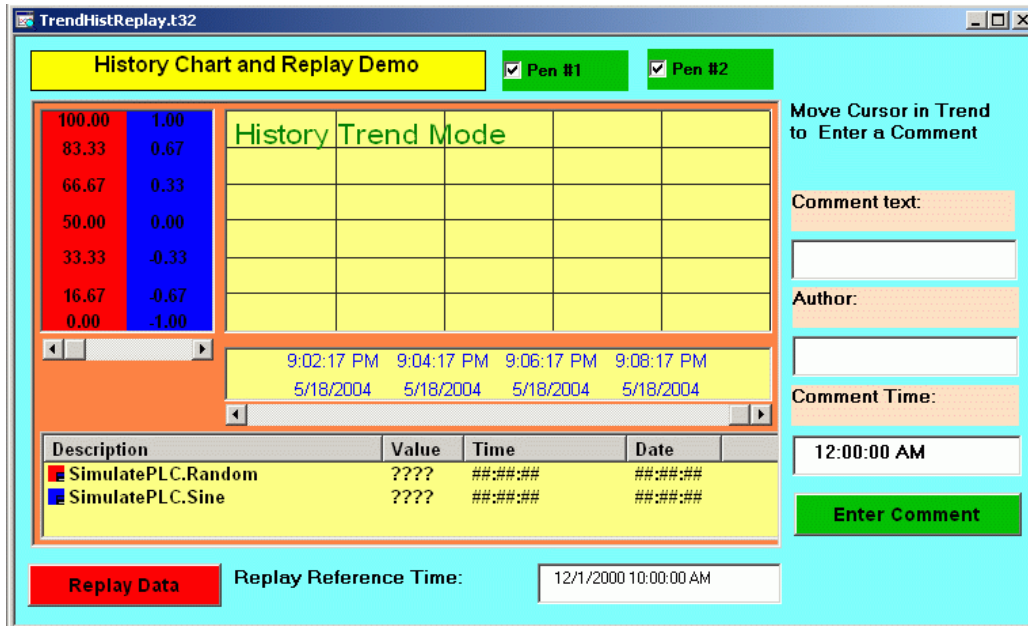
1. Create an ODBC Microsoft Access system data source called "TWX32DEMO," and select the "Twx32demo.mdb" file in this folder without specifying any password or login ID.
2. Start the TrendWorX32 Configurator.
3. Select **Open** from the **File** menu and load the "Twx32DemoCfg.mdb" in this folder. TrendWorX32 will try to start the Data Logger, and a message box may appear.
4. Select **Cancel**.
5. In the TrendWorX32 Configurator, set the Computer Node Name to your Computer Name or leave it set as "local."
6. Click on the **Connect** button to connect to the Data Logger.
7. Click on the **Download Configuration** button to download the demo configuration to the Data Logger.
8. From here, you can start data logging, stop data logging, modify the sample configuration, etc.

**Note:** The sample data-logging configuration is configured so that a new data table is created every hour or whenever data logging starts with a maximum of 12 historical tables. The sample historical database has data between 12/1/2000, 9:15:00 AM and 12/1/2000, 10:10:00 AM.

## Historical Replay Demo

To use the TrendWorX32 historical replay demo:

1. Start the TrendWorX32 Container.
2. Load the "TrendHistReplay.t32" display.
3. Enter the display into animation mode.
4. Click on the various buttons to retrieve TrendWorX32 historical data.
5. You can now start data logging, stop data logging and do historical replay.



Historical Replay Demo

## TrendWorX32 OLE DB Provider Demo

In order to provide a sample application using the GENESIS32 TrendWorX32 OLE DB Provider, ICONICS has created a sample VBA application to demonstrate its use. It is located in the "TrendWorX32 Data Logging and Reporting" folder, and it is called "TrendOleDB.t32." This file consists of a main form, which is shown below. Click **Connect** to connect to a TrendWorX32 SQL Server historical database. Click **Signal Info** to retrieve the data-logged signal for a particular group. You can also build a trend query and execute it to retrieve historical data.

1. Start the TrendWorX32 Container.
2. Load the "TrendOleDB.t32" display.
3. Enter the display into animation mode.
4. Click the various buttons to retrieve TrendWorX32 historical data using the TrendWorX32 OLE DB Provider.
5. When prompted, you can select Microsoft Access as the historical database type and enter "Twx32Demo.mdb."
6. You can now start data logging, stop data logging, and retrieve historical data.

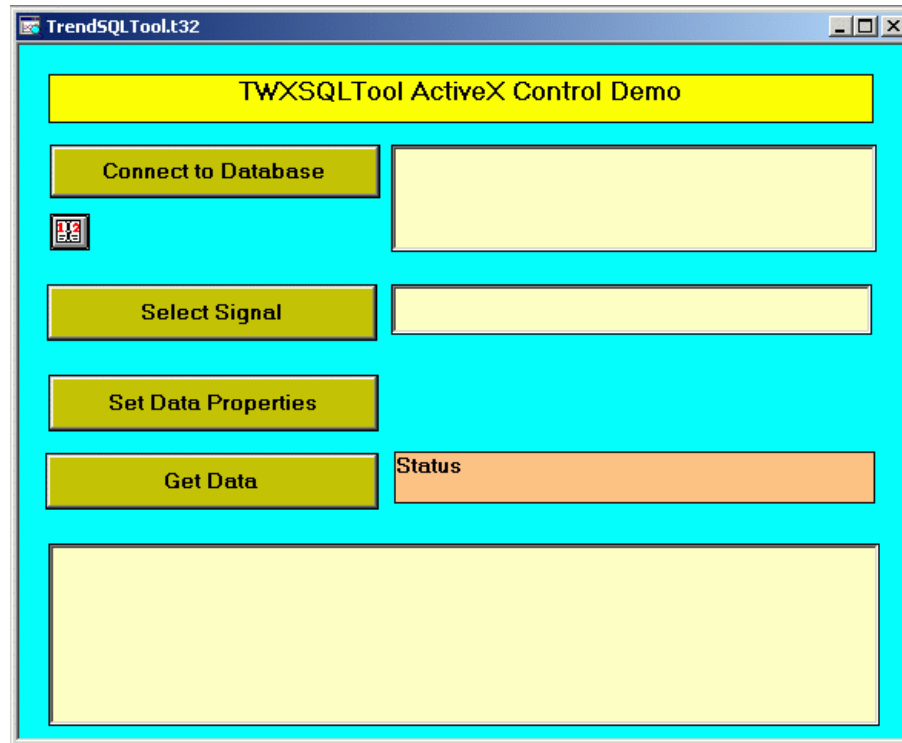
The screenshot shows a software window titled "TrendOLEDB.t32". The main area has a light blue background. At the top is a yellow bar with the text "TrendWorX32 OLEDB Provider Example". Below this, on the left side, there are several controls: a "TWX Connection String:" label, a "Signal Info" label, a "Build Query" label, a "Samples" label next to a text input field, and a "Get Data" label. To the right of these labels are four large, empty yellow rectangular boxes, each corresponding to one of the labels. At the top right of the main area, there are two buttons: "Connect with Prompt" and "Connect to TWX32Demo.mdb".

**OLE DB Provider Example**

## Reporting Tools Examples

TrendWorX32 includes VBA-based examples to demonstrate the use of the Reporting tools. In the "TrendWorX32 Data Logging and Reporting" folder, there is a new TrendWorX32 display called "TrendSQLTool.t32," shown in the figure below, which uses VBA forms to demonstrate the use of the TrendWorX32 SQL Tool ActiveX control.

1. Start the TrendWorX32 Container.
2. Load the "TrendSQLTool.t32" display.
3. Enter the display into animation mode.
4. Click on the various buttons to retrieve TrendWorX32 historical data using the TrendWorX32 SQL Tool ActiveX control.
5. When prompted, you can select Microsoft Access as the historical database type and enter "Twx32Demo.mdb."



**TWXSQLTool ActiveX Control Demo**

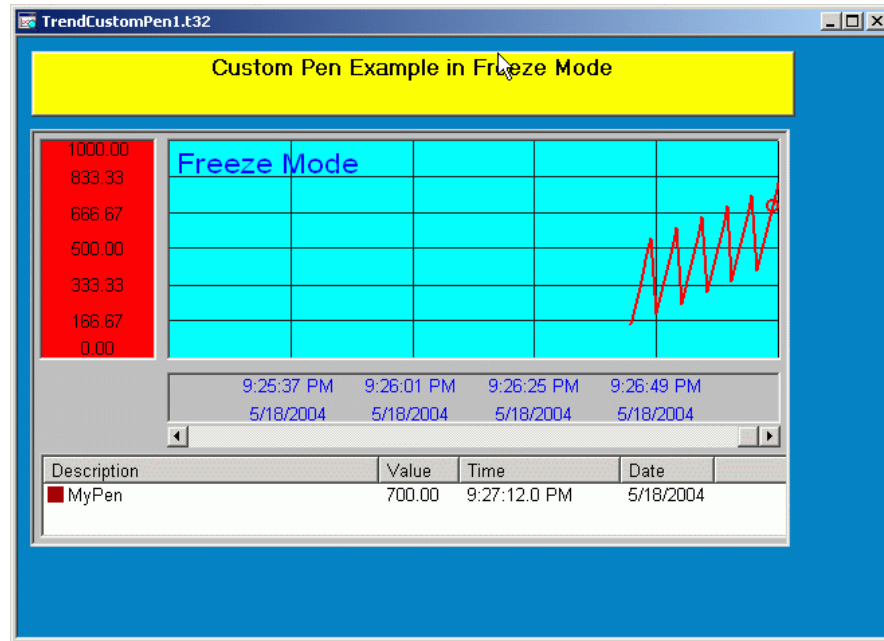
## **TrendWorX32 VBA Examples**

The "TrendWorX32 VBA Examples" folder contains various examples that demonstrate the use of the OLE Automation interface of the various TrendWorX32 modules and components. To use these examples, do the following:

1. Start the TrendWorX32 Container.
2. Load each TrendWorX32 display in the folder.
3. Enter the display into animation mode.
4. Click on the various buttons of each display to run the examples.

### **TrendCustomPen1.t32**

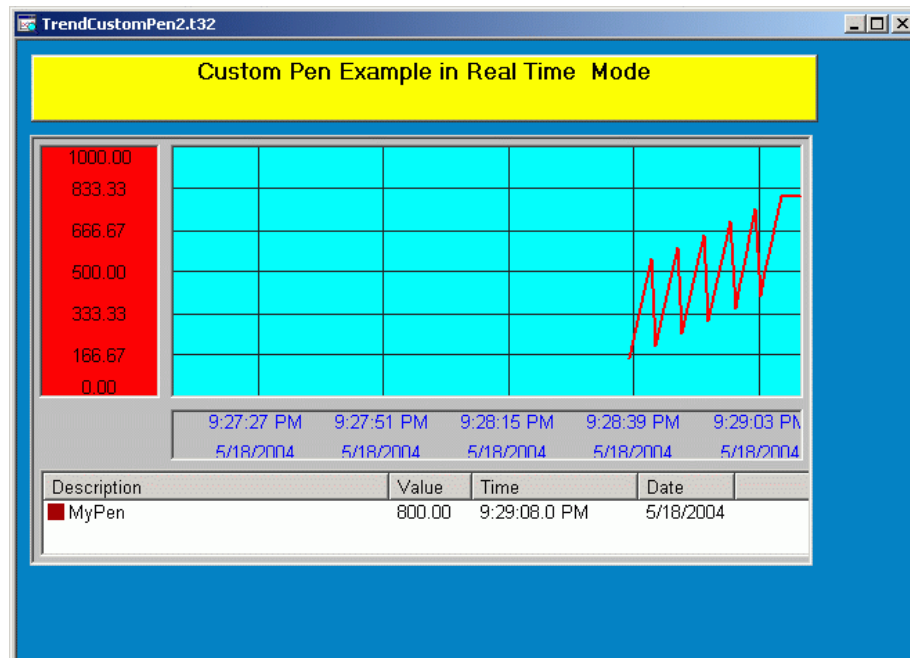
This example display uses VBA code to add a custom pen to a Trend ActiveX. The custom pen is updated via timer-based calls to the Trend ActiveX to add new samples to the pen's buffer. The Trend ActiveX is used in freeze mode.



**Custom Pen Example in Freeze Mode**

## TrendCustomPen2.t32

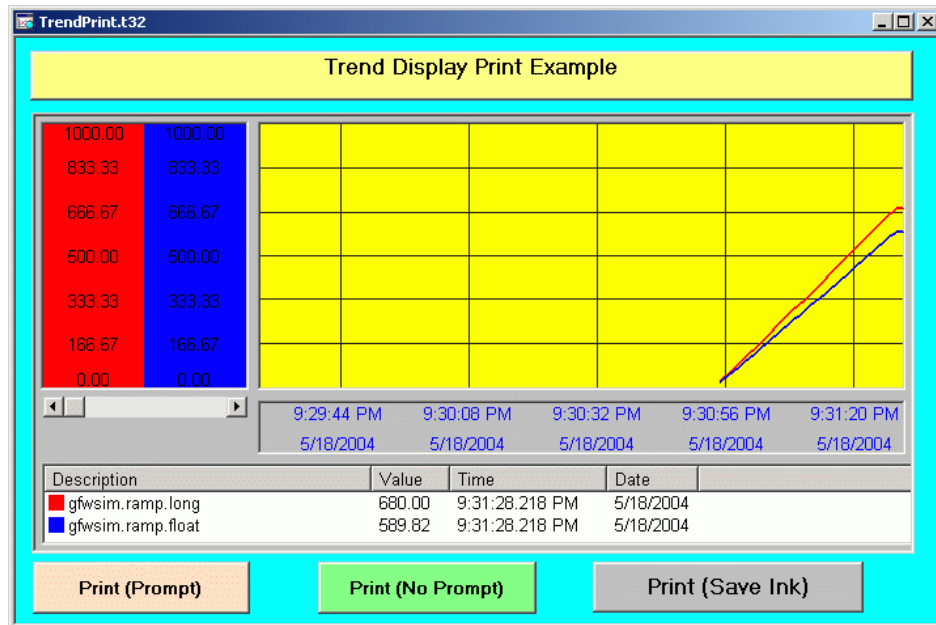
This example display uses VBA code to add a custom pen to a Trend ActiveX. The custom pen is updated via timer-based calls to the Trend ActiveX to add new samples to the pen's buffer. The Trend ActiveX is used in auto-update mode.



**Custom Pen Example in Real Time Mode**

## TrendPrint.t32

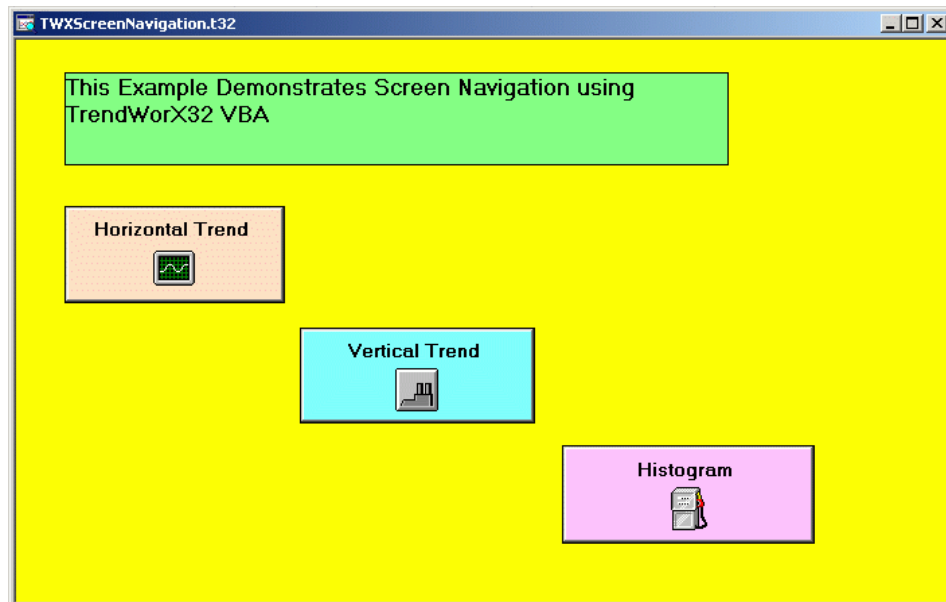
This example display uses VBA code to print just the Trend ActiveX utilizing various options. In addition, it shows how to do a print while saving ink by not filling the background color of the Trend ActiveX area.



Trend Display Print Example

## TWXScreenNavigation.t32

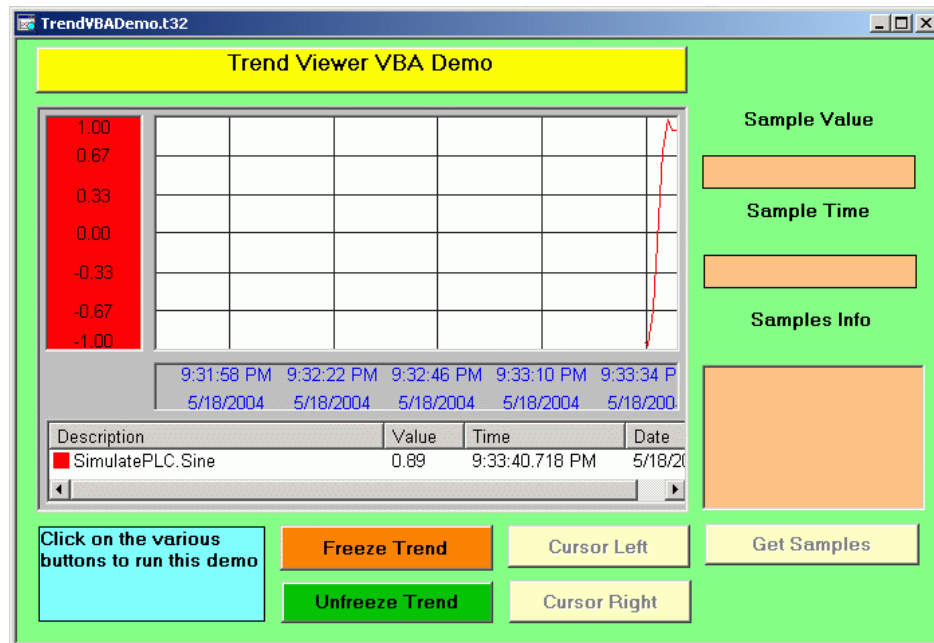
This example display demonstrates how to create a Trend Navigation screen within a TrendWorX32 display and how to dynamically configure Trend ActiveXs. It also demonstrates how to navigate between the various displays.



Screen Navigation

## TrendVBADemo.t32

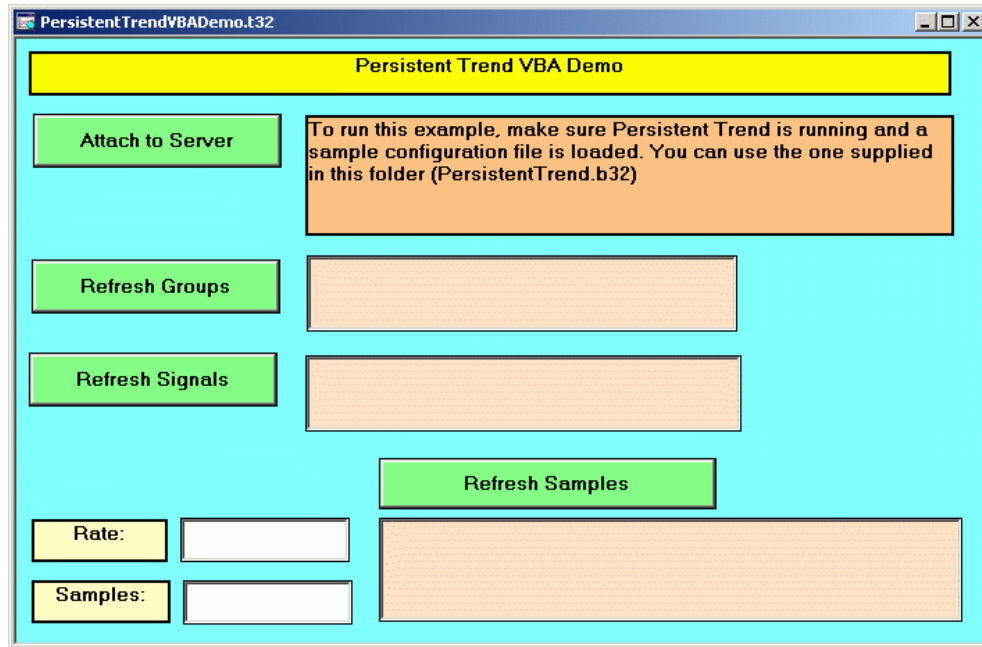
This example display demonstrates some of the OLE automation methods of the Trend Viewer ActiveX. It shows sample code on providing a user interface for the Trend ActiveX via VBA calls. It also shows how to retrieve individual sample information directly from the pen buffers or the trend cursor in freeze mode.



Trend Viewer VBA Demo

## PersistentTrendVBADemo.t32

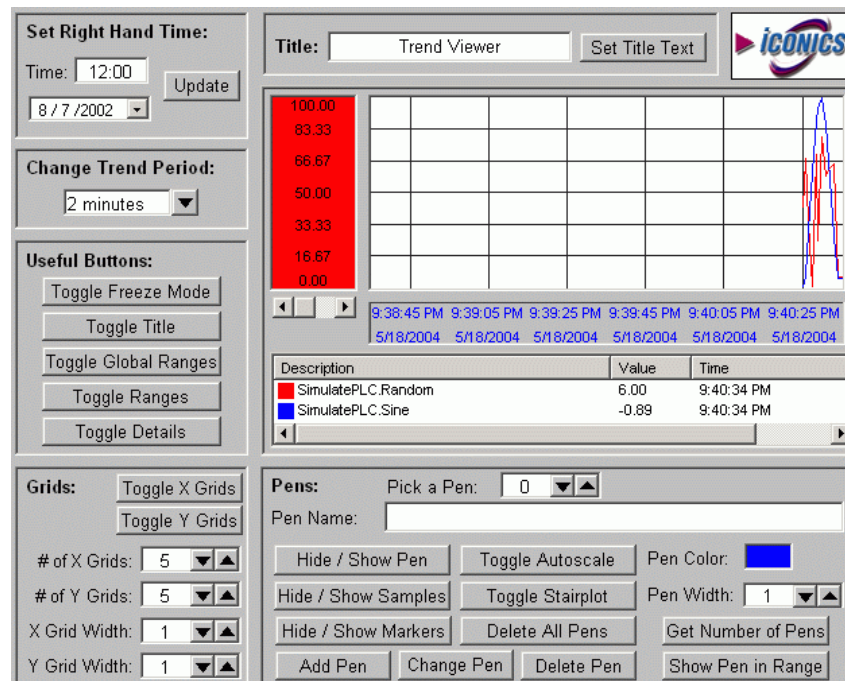
This example display demonstrates how to interface to the Persistent Trend OLE Automation server from any VBA-capable application. It demonstrates how to build a user interface and a browsing interface, as well as how to retrieve individual samples for a signal from Persistent Trending.



Persistent Trend VBA Demo

## VBScript Examples

The "VB Script Examples" folder contains a **TWX-VBScriptEx.gdf** display that uses VB scripting. Open this file in GraphWorX32 and go into runtime mode, as shown in the figure below. Click on the various buttons to see how the VBScript functions work. In configuration mode, you can click on the buttons to see how the script pick actions are configured.



VBScript Examples