GridWorX Viewer
Getting Started

APPLICATION NOTE

October 2015

Description: A guide demonstrating how to configure GridWorX Viewer to display information from databases and also to write to the database.
General Requirement: Familiarity with GridWorX Server workbench provider.

Introduction

GridWorX Viewer was developed in order to visualize database data or OPC DA data through a data grid type control. You can perform basic read and write actions along with stored procedures for connected databases. How it works is similar to how the Data Mining OPC Server works in GENESIS32. This application provides an example of how to use a data source to configure a user interface at runtime to read and write information to and from the database. This application note assumes that you have followed through the example in the Application Note titled *GENESIS64 – GridWorX Server***.**

Adding a GridWorX Viewer

1. Open up Workbench by going to **Start → All Programs → ICONICS → Workbench**
2. In the Project Explorer, choose **GraphWorX64** Provider from the list of providers, and click "New Display" in the ribbon
3. Select the Controls tab in the ribbon bar and click on **GridWorX Viewer**
4. Click (or click and drag) anywhere on the empty display to drop the control onto it.

Configure GridWorX Viewer for Database Data

1. Double click on the GridWorX Viewer control to bring up the configuration dialog box.
2. Click on **Grid** from the tree on the left.
3. Under **Source** tab, click on to create a new subscription. Choose **Data Set Tag Subscription**. This opens the OPC UA Data Browser.
4. In the Data Browser, browse to **Databases → SQL Server → Northwind → Data Sources → All Products.**
5. Click OK. Your finished Source configuration should look similar to Figure 1.

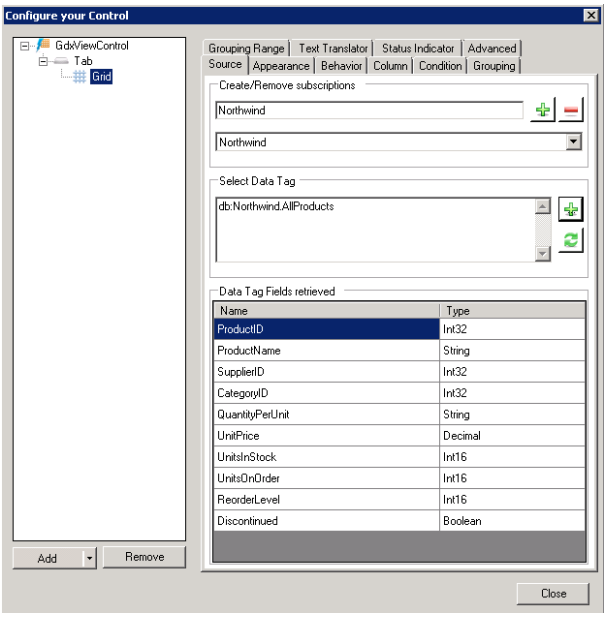

Figure 1 - GridWorX Viewer Source configuration

6. Click on to refresh if the data tag field is not showing data.
7. Click Close to save
8. Go into Runtime and you should see the GridWorX Viewer grid populated with data from the Northwind database.
9. If you double click on any cell, you should be able to edit the values, provided that you have included an insert or update command in the data source (please refer to application note: "*GENESIS64 – GridWorX Server*").
10. If you exit Runtime and go back into Configuration mode, you can include a filter under the Behavior tab. The filter in Figure 2 is set to show products whose UnitPrice is less than 10.

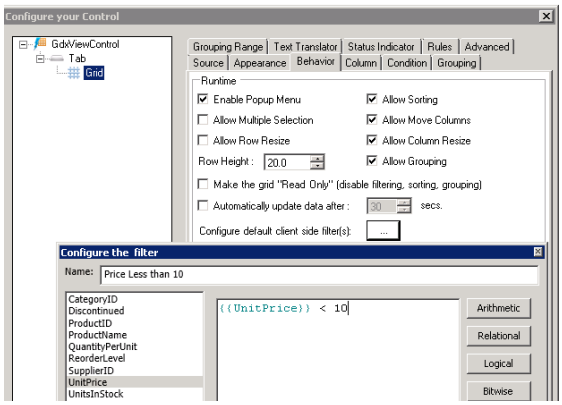

Figure 2 - Setting a filter for a GridWorX Viewer

11. You can also set visibility, width, alignment and other visual properties of columns under the Column tab
12. You may also want to set the grid refresh rate (AutoUpdateSeconds) under the Advanced tab in case you want to show the latest data from a table that might be undergoing constant changes

You might have noticed that the configuration of GridWorX Viewer is very similar to that of the AlarmWorX64 Viewer. Since they are both grid controls, many properties of the grids are shared. You can consult the application note *AlarmWorX64 Viewer – Getting Started* to learn more about options for configuring the GridWorX Viewer.

OPC Simple Tags Subscription

An OPC Simple Tags Subscription allows you to display a row of values from a collection of OPC data tags. To create a subscription, click on the button in the Source tab and choose OPC **Simple Tags Subscription**. Click on the second button to add as many OPC tags as you want. A Simple Tags Subscription is shown in Figure 3, configured with three simulator tags.

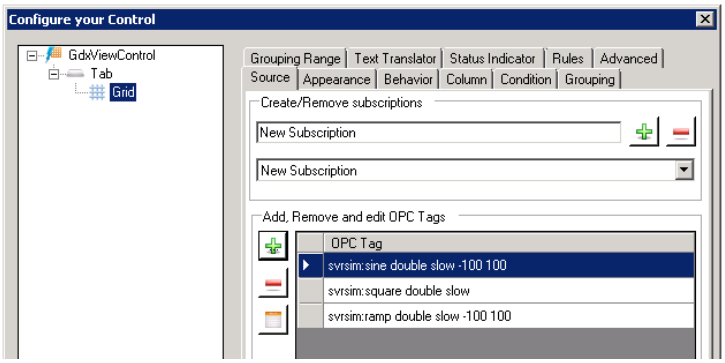

Figure 3 - OPC Simple Tags Subscription

You can modify the header name of the column in the Column Tab of the configurator.

After setting the column name, you can exit the configuration dialog box and go into Runtime. You should see a row of values as shown in Figure 4. The only information shown for each tag is the column name and the tag value.

Tag1	Tag2	Tag3
-4.08607416882312	100	98.699

Figure 4 - OPC Simple Tags Grid