



Description: A guide demonstrating how to configure GridWorX64 Viewer to display information from databases and also to write to the database.

OS Requirement: Windows 8 x64 (Professional or Enterprise Edition), Windows 7 x64 (Professional or Enterprise Edition), Windows Server 2012 x64, Windows Server 2008 R2 x64, Windows Vista x64 SP2 (Business, Ultimate, or Enterprise Edition), Windows Server 2008 x64

General Requirement: Familiarity with GridWorX64 configurator.

Introduction

GridWorX64 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 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 though the example in the Application Note titled *GENESIS64 – GridWorX64 Server*.

Adding GridWorX64 Viewer

1. Open up workbench by going to **Start → All Programs → ICONICS GENESIS64 → Workbench**
2. In Project Explorer, choose **GraphWorX64** Provider from the list of providers, click “new display” in the ribbon
3. Select Controls tab in the ribbon bar and click on **GridWorX64 Viewer**
4. Click anywhere on the empty display to drop the control onto it

Configure GridWorX64 Viewer for Database Data

1. Double click on the GridWorX64 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 source. Choose **Data Set Tag Subscription**.
4. Click on under **Select Data** tag to open up OPC UA Browser
5. In the Data Browser, click on **Databases→SQL Server→Northwind→Data Sources→All Products**.
6. Click OK. Your finished Source configuration should look similar to Figure 1.

7. Click on to refresh if the data tag fields retrieved is not showing data
8. Click Close to save
9. Go into runtime and you should see the table now

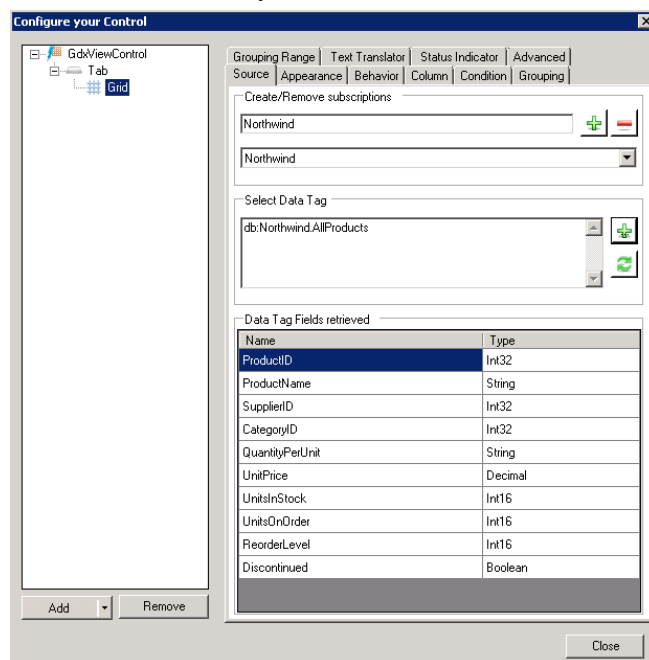


Figure 1 - GridWorX64 Viewer Source configuration

10. 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 – GridWorX64 Server*”)
11. Optionally, you can include a filter under the Behavior tab to show products whose UnitPrice is less than 10 as below:

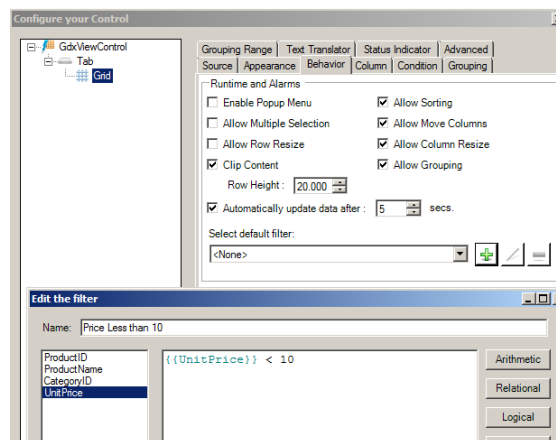


Figure 2 - Setting a filter for a GridWorX64 Viewer



12. You can also set visibility, width, alignment and other visual properties of columns under the Column tab
13. 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 GridWorX64 Viewer is very similar to that of AlarmWorX64 Viewer. Since they are both grid controls, many properties of the grids are shared. You can consult *AlarmWorX64 Viewer – Getting Started* to learn more about your options in configuring GridWorX64 Viewer.

OPC Simple Tags Subscription

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 source tab and choose **OPC Simple Tags Subscription**. Click on the second  button to add as many OPC tags as you want as in Figure 3.

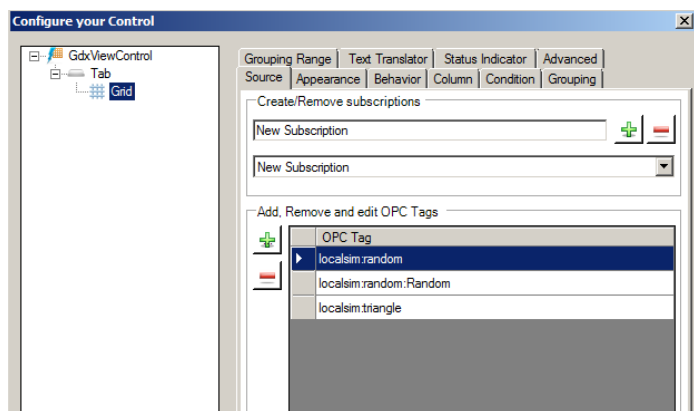


Figure 3 - OPC Simple Tags Subscription

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

After setting the column name, you can exit the configuration dialog box and go into Runtime. You should see a row of values as in Figure 4.

Column0	Column1	Column2
4.19846954950992	89.7293470286435	5.82031200000001

Figure 4 - OPC Simple Tags Grid

OPC Table Tags Subscription

OPC Table Tags Subscription is used for backward compatibility with GENESIS32 Data Mining OPC Server. You browse to a data source in a Data Mining OPC Server the same way you did with Data Set Tag Subscription. However, with this type of subscription, you cannot change values of cells in the table. You also cannot use the paging feature of the control.

However, the benefit of using Data Mining OPC Server is that you can communicate with Microsoft Access database. Being a 32-bit technology, Microsoft Access Database cannot be directly interfaced with GridWorX64 Server.