



GraphWorX64

Bulk Display Configurator



APPLICATION NOTE

October 2015

Description: Guide to using the Bulk Display Configurator.

Introduction

The Bulk Display Configurator allows easy configuration of GraphWorX displays by dynamically creating a display using symbols from the Symbol Library and instructions from a CSV file.

The Bulk Display Configurator:

- Reduces repetitive work
- Reduces the possibility of human error
- Reduces engineering time to create a project
- Reduces overall project cost
- Auto-configures GraphWorX64 displays
- Auto-generates buildings and floor plans

The purpose of this App Note is to show and describe the functionality of the Bulk Display Configurator. We'll use the prepared example available at **C:\Program Files\ICONICS\GENESIS64\Symbols\Configuration Wizards**

Objects and Symbols

The first thing you will need to do is create the helper symbols. The helper symbols have already been created for us in this example, but let's take a look at one of them.

1. From the Configuration Wizards location note above, open *ExampleFloorConfigurator.gdpx*.
2. In the **Explorer** tab you should see these named objects:
 - *Temperature01, Temperature02, Temperature03*
 - *Light01, Light02, Light03*
 - *Fan1*

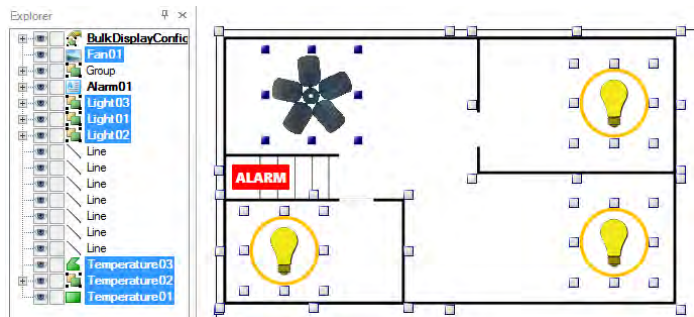


Figure 1 - Objects

3. In the **Symbols** tab, click Edit Category List and add the Configuration Wizards folder mentioned above.

4. Open the symbol library category named, *BulkDisplayConfigurator*.

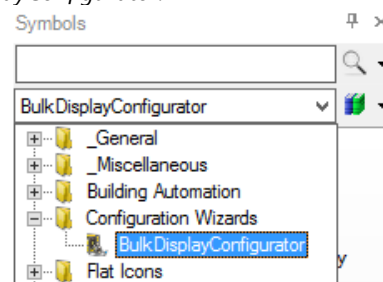


Figure 2 - Symbol library

5. You should see these Symbols:
 - *Temperature Dynamics Configurator Helper*
 - *Light Dynamics Configurator Helper*
 - *Fan Dynamics Configurator Helper*

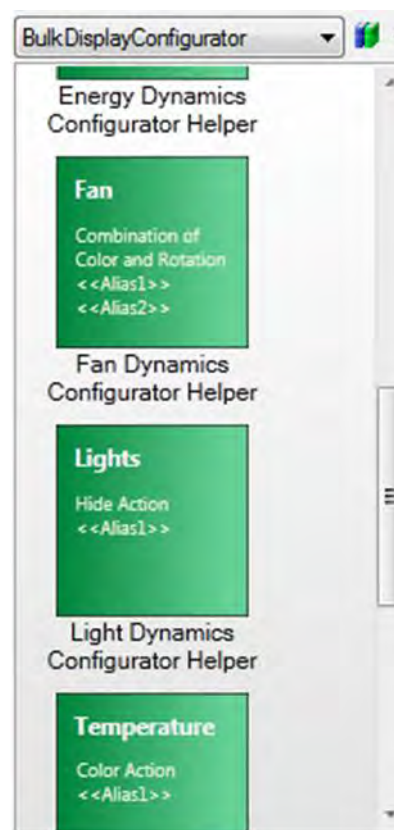


Figure 3 - Predefined Symbols

6. Place the *Fan Dynamics Configurator Helper* symbol on the display and select it.
7. In the Dynamics tab, take a look at the data sources used in this object. They are set as local aliases:

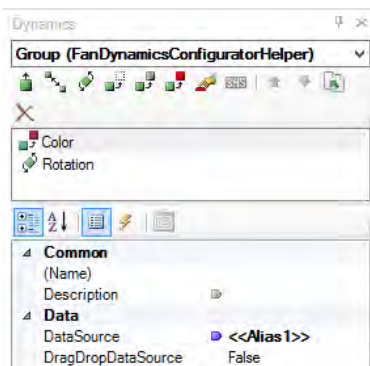


Figure 4 - Dynamics and local aliases

8. Delete the Fan symbol. (We do not actually need this symbol present on our display for the bulk configurator to function.)

CSV Bulk Configuration File

As the next step, we need to create the configuration file where we will define the objects we want to add, along with the symbol and alias definitions for each object.

For this example we will use the predefined file *ExampleFloorConfiguration.csv* from the Configuration Wizards location noted above.

	A	B	C	D
1	'ObjectName	DynamicHelper	Alias1	Alias2
2	Light01	Container_LightDynamicsConfiguratorHelper	x={{(localsim:sine)}} > 80	
3	Light02	Container_LightDynamicsConfiguratorHelper	x={{(localsim:sine)}} > 40	
4	Light03	Container_LightDynamicsConfiguratorHelper		1
5	Temperature01	Container_TemperatureDynamicsConfiguratorHelper	localsim:sine	
6	Temperature02	Container_TemperatureDynamicsConfiguratorHelper	localsim:ramp	
7	Temperature03	Container_TemperatureDynamicsConfiguratorHelper	localsim:square	
8	Fan01	Container_FanDynamicsConfiguratorHelper		1

Figure 5 - Bulk configuration file

The values in the DynamicHelper column come from the Scripting ID of the symbol. You can find this ID by hovering over the Symbol Name field, as shown in the figure below.

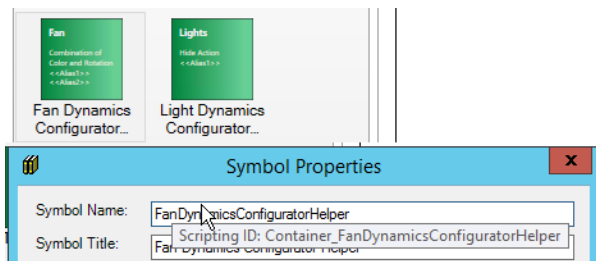


Figure 6 - DynamicHelper name

The CSV configuration file needs to be saved into the same folder as your display.

Bulk Display Configurator Symbol

As the last step we will use the Bulk Display Configurator symbol.

1. If it is not already there, place Bulk Display Configurator symbol on the display from the symbol library.

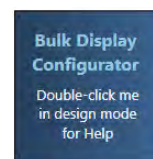


Figure 7 - Bulk Display Configurator symbol

2. Double click on it in configuration mode. This will open the configuration dialog.
3. Specify the Configuration Spreadsheet name. Specify the Helpers Symbol Library location.
4. Press the Start button.

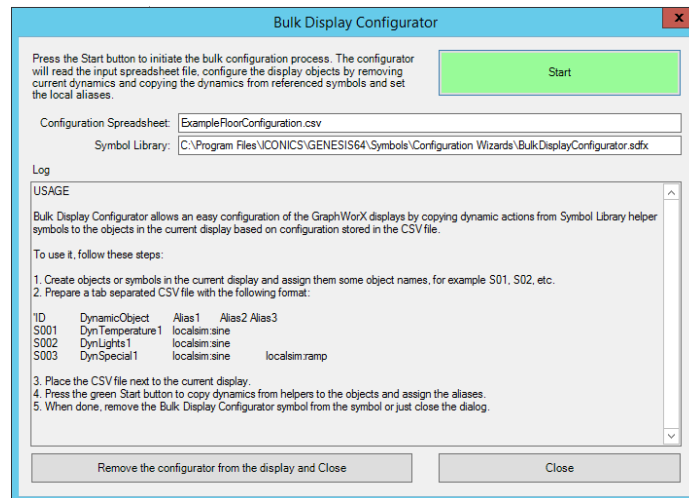


Figure 8 - Bulk display configurator

This will initiate the bulk configuration process. The configurator will read the CSV file, copy the dynamics from the symbol library symbols into the display, and set the local aliases.

5. Go into runtime to see the results.



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Auto-generation of Buildings and Floor Plans

Bulk Display Configurator can be used together with other GraphWorX tools and enhancements introduced in version 10.9 to quickly create a floor plans, using the following workflow:

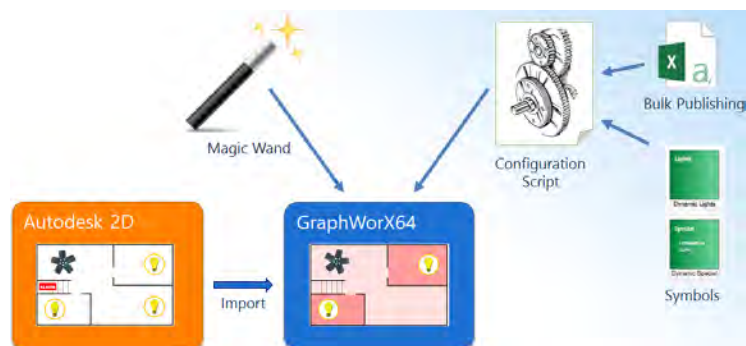


Figure 9 - Floor plan creation workflow

Autodesk Floor Plan Import

GraphWorX64 2D import supports following formats:

- Autodesk DWG
- SVG
- XAML

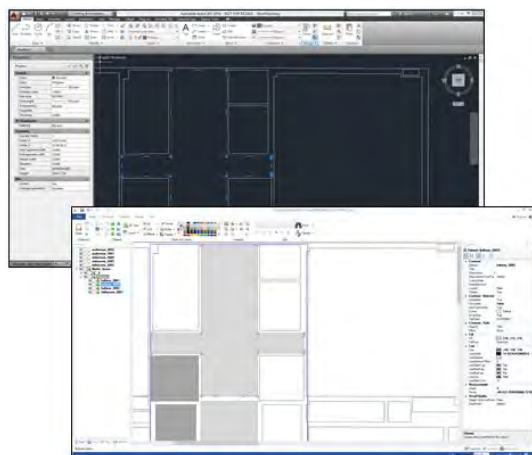


Figure 10 - Autodesk import

Magic Wand Selector

An enhancement of the GraphWorX64 selection tool, the Magic Wand Selector allows the selection of complex polygons. Its sensitivity and behavior can be customized by the user. Click with the tool inside of a polygon shaped area surrounded by lines to select those lines.



Figure 11 - Magic wand selection mode

Polygon Generator

The 'Append and Connect' enhancement merges lines into polygons. It is designed to work with the Magic Wand Selector – select your individual lines with the Magic Wand and merge them into a polygon with Append and Connect. This feature is configured in the Magic Wand Properties dialog.

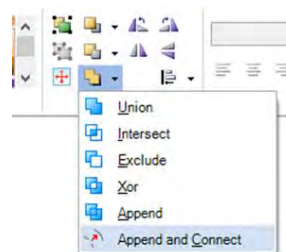


Figure 12 - Append and Connect

NOTE: For more information about tools above, see the help file.