EarthWorX
Integrating with Esri GIS Technology

APPLICATION NOTE

October 2015

Description: Guide to integrating GraphWorX64 with Esri GIS Technology.
General Requirements: GraphWorX64 knowledge. An Internet connection or Esri GIS server connection.

Introduction

In ICONICS GENESIS64 version 10.90, we enhanced the Esri feature to connect through an ArcGIS control which provides users more customizable capabilities as well as the ability to run comprehensive data analytics on top of the rich geographical information it already provides. This document will walk you through the new changes and benefits of Esri/GIS integration in GraphWorX64.

This document assumes reader has the knowledge of EarthWorX and GraphWorX64. For more information about EarthWorX and GraphWorX64, please refer the corresponding application notes.

Esri/ArcGIS System

Esri (Environmental Service Research Institute) is an international supplier of geographic information system software, web GIS and geodatabase management applications. Its suite of GIS software products is named ArcGIS. It can be operated across platforms and can be utilized for maps, compiling geographic data, analyzing, discovering, and sharing spatial and geographic data in a range of applications.

For more information about Esri/ArcGIS system, please visit: http://www.esri.com

Esri Mapping in EarthWorX

Thanks to the ArcGIS control in GENESIS64, EarthWorX is now capable of deploying anything that an Esri server can provide. For instance, there are a number of layers, such as the feature layer, graphics layer, tiled layer etc., which you can customize in Esri and easily integrate and display on EarthWorX. Furthermore, the base map – Dark Gray Canvas and Open Street Maps – on which users can draw data are also now supported and can be displayed in EarthWorX as well.

Setting up Esri in EarthWorX

Once you insert an EarthWorX control inside GraphWorX64, the ribbon will change to expose the EarthWorX configuration details. The following steps will introduce you on how to integrate Esri into an EarthWorX control:

1. On the EarthWorX Configuration tab, click on the down arrow below the "Setup Connection" button.
2. Select Esri which will bring up the "Configure Esri ArcGIS Connection" dialog.
3. In the dialog, you can enter the Service URL, connection protocol etc. Upon clicking OK, you will connect to the Esri server.
4. Expand the EarthWorX Viewer in the Explorer tree.
5. Click on Single Map Layer and you will notice the buttons in the Map System section on the ribbon are now enabled.

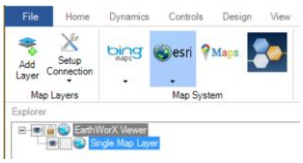

Figure 1-Enabling Map System buttons

6. Click on the down arrow below the Esri button and select Custom Esri Maps. A Custom Esri Map Connection dialog will open up.
7. In this dialog, you can either pick the default maps in the search result list or you can use the search bar to look up any maps that you would like to connect on the Esri server.
8. When you have a map selected from the list, you can also click on Setup Visibility to bring up an additional dialog which will allow you to drill down even further to base maps and operational layers for the target map.
9. Click OK until you are back to GraphWorX64.
10. Click on Runtime at the upper right corner of GraphWorX64 and you will be able to fully interact with your Esri map and experience the power it can bring to you and your project.

Benefits of the ArcGIS Control Integration

The integration of ArcGIS control is seamless as it retains the same user configuration interface. With just a few mouse clicks, it offers users with full Esri maps compatibility and experience. The rich spatial and geographic data will be downloaded and displayed onto the EarthWorX control almost in a snap.

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