

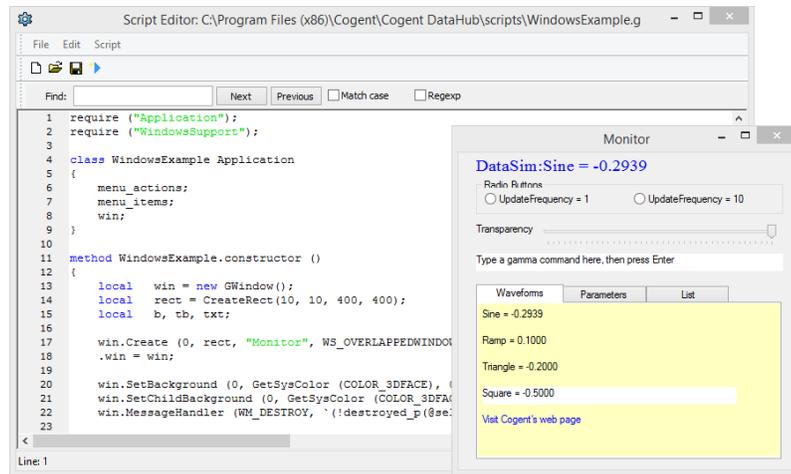


DataHub® Scripting

GO THE LAST MILE IN YOUR DATA INTEGRATION PROJECT

Expand the reach of off-the-shelf software

Every system integration project is different. By design, off-the-shelf software meets most needs, but it cannot be everything to everyone. When you need to log an unexpected value or flip a bit based on a particular event, when you need to access your data in a way that the SCADA designer hadn't thought of, or perhaps read in the contents of an external file, monitor a network connection, or make custom changes to the data flowing through your system, you can use DataHub scripting.



Connect to and customize virtually any system

Connect to OPC servers, SCADA systems, HMIs, databases, spreadsheets and custom programs using OPC, DDE, XML, TCP, ODBC, or the DataHub API. Pull in live process data, take input from Excel, access recipes or set points from any SQL database, and integrate values from CSV or other text files. Gain better control over OPC connections, optimize your legacy systems, and leverage the value of your process data.

Work at the level of the data

With your data flowing through the Cogent DataHub, every point is available in a script, in real time. Perform linear transformations, break up OPC arrays, convert data types, adjust polling rates, create monitoring points, track connections, read in lists of OPC tags, and automatically calculate formulas based on data points.

DataHub Scripting in the nick of time:

"With three weeks to go, they told us there was no solution in sight," said the SCADA engineer of a large wind farm facing months of shut-down due to bat migration cycles during the night. The company needed to raise cut-in speeds at night when the bats flew, and lower them during the day. The turbine manufacturer did not offer a solution, and it looked like they would need to reconfigure every turbine manually, twice a day.



“I thought there must be a better way,” the project manager continued. “We’d been using the Cogent DataHub for years, and knew the potential was there to leverage this asset further. I gave Cogent a call, and told them what we were up against. They delivered by helping us to develop a very efficient program using DataHub scripting. The code runs right on the SCADA interface of the OEM system – so it’s as reliable as you can get.” Read more: <http://skkynet.com/wind-turbine-farm-usa/>.

A Complete Programming Language

The DataHub scripting language is a dynamically-typed interpreted programming language specifically designed to allow rapid development of control and user interface applications. It has a syntax similar to C and C++, with a range of built-in features that make it a far better language for developing sophisticated real-time systems. It offers fully documented functions for classes and methods, data type conversions, lists, arrays, strings, buffers, I/O, file system, event and callbacks, as well as ODBC connectivity and the ability to create menus and Windows.

Sample Scripts

A number of sample scripts come with the Cogent DataHub that can be used immediately, or modified to meet your needs. Some of the more popular ones allow you to:

- Automatically calculate formulas based on data points
- Perform linear transformation functions on points
- Convert integer data into a set of single-bit points
- Make arrays from individual points, or break arrays into points
- Read data from CSV or XML files
- Write data to CSV or text files
- Disconnect or reconnect to OPC servers, or reload data with no disconnect
- Inform the system when a connection is made or broken
- Track the quality of OPC tags

System Information

The Cogent DataHub supports OPC DA 3 and DA 2 server and client connections as well as the ODBC protocol. It runs on the following operating systems:

- Windows 10 (32-bit & 64-bit)
- Windows 8 (32-bit & 64-bit)
- Windows Embedded 8 (32-bit & 64-bit)
- Windows 7 (32-bit & 64-bit)
- Windows Server 2012 (64-bit)
- Windows Server 2008 R2 (64-bit)
- Windows Server 2008 (32-bit & 64-bit)
- Windows Server 2003 SP2 (32-bit & 64-bit)
- Windows Vista (32-bit & 64-bit)
- Windows XP SP2 (32-bit & 64-bit)

Ordering Information

DataHub Scripting comes as a standard feature with any DataHub Product Pack.