

Silent Inspector Database User COM Support

Release Notes for 2.0

SIDB COM Support

The Silent Inspector Database (SIDB) contains enterprise data for dredging operations contracts. In addition to sensor data and performance analysis from dredges, the database contains contract and project management information. Standard reports and forms in SI applications handle most required data entry and reporting. District operations and program management personnel also require many custom and one-time reports and documents incorporating SIDB data. This COM interface helps integrate data from SIDB with existing programs such as MSOffice, ArcView or custom programs developed by district users, IT staff, or IT contractors.

Release 2

Release 2 of the **SIDB COM** support adds major new features that allow simple, flexible and powerful access to dredge data. Now almost any read only application can be implemented with only the interfaces provided by the COM object. Changes from the previous release are summarized as:

A new class provides access to dredge process data with load level time resolution. Data may be queried by contract, dredge name, time periods, and load numbers.

The contract information class now has a Global ID support. The Global ID (GID) can be used to bookmark contract bid item data so that the data can be retrieved in a later session. The bookmark is intended to provide a field value that other databases may save to reference contract data in the SIDB. GID will remain valid for all future versions of the SIDB.

The contract select class provides additional flexibility with several new properties. Project information can be retrieved from contract numbers or physical reach names.

Microsoft Developer Network style help documentation for the entire COM interface is now provided. All classes, methods, and properties are documented. The previous object browser help support has been improved.

The COM interface now supports the standard SI client server connection registry entries. This makes installation of **SIDB COM** based applications compatible with other SI client programs on the same PC. For example a client may have **SI Manager Workstation** and **DMSmart** (an SIDB COM application) on the same PC, and the SI server configuration will be used by both applications. The **SI Server Manager** configuration application is included with this distribution to select the desired database server. One selection is included for this distribution to connect to a test server populated with SI data.

The sample application written in Visual Basic 6.0 has been updated to use all of the new classes and properties. The sample application (`TestSIDBcom.exe`) is included both as an executable and as source in a Visual Basic Project.

The COM interface is now feature complete. Future releases of the COM object may include additional classes and interfaces, but will attempt to maintain compatibility with the interface here. The present implementation is as an *In-Process DLL*. This could change in the future. The number of fields returned by ADO recordset objects may increase in the future. Every attempt will be made to maintain existing fields and field names in all future releases.

Install

The install kit should install on any Windows 9x/NT machine. Win95 machines must have DCOM installed. This is usually already installed by updates to other MS tools such as Internet Explorer. DCOM is available as a separate install from the MS support Web site. To Uninstall use the Uninstall tool from the Window's Control panel. The installation program will install or upgrade Microsoft's MDAC components to version 2.5 if they are not already installed. After the installation is complete, use the **Server Manager** application to set the server for the test SI database. Select server configuration **SI Production DB** Read Only and click OK. Then restart **Server Manager** and click the Test Connection button. If the connection OK dialog appears, the work station has successfully connected and logged into the test Silent Inspector database located at Waterways Experiment Station in Vicksburg. This database is populated with real contract and dredge data from Mobile District.

Troubleshooting the network connection

If the connection fails, use standard network trouble shooting procedures to find and correct the problem. There must be a connection to the database to successfully test the COM objects. If the connection fails, instantiation of the any of the Classes will return an error to the client application. The sample application will report this with an error dialog. Connection to the test database requires network connectivity to USACE ERDC at ip 134.164.34.247 on port 1433, the default tcp/ip port for MS-SQL Server. If your organization is behind a firewall, ask your network administrator's if you have connectivity through your firewall on this port. Note that ICMP packets are not passed through the ERDC Vicksburg firewall, so ping and similar utilities cannot be used to test connectivity to the server.

Using the test program

The sample program is now documented in the Help File. The following notes can be used for a quick start.

When the Contract select screen appears, select **SAD** from the **DIV** combo. Then select **SAM** from the **district** combo. At this point **project**, **contracts**, **bid_items**, and **reaches** may be selected. The Contract Info button will display detailed data for the project and contract in a grid control. The columns may be resized under user mouse control to read long field data. The GID support can be tested using the Bookmark feature of the sample application. Detailed dredge process data may be displayed by selecting the Drege Data button from the selector window. Close the select window to exit the sample application.

Documentation of the COM interface

The COM interface is documented in a Microsoft HTML Help compatible file. Select the Help entry under the SIDBCom programs entry of the START menu.

Programmers can also view documentation on the classes and interfaces provided by the COM object by referencing the object in any development environment that supports COM under MS-Windows. These include Visual Basic, Visual C++, Delphi, etc. The COM interface name is **SIDatabaseUser**.

Once the object is referenced, use the Object Browser to inspect the type table information on available Classes and properties.

Support and Bug Reports

Please report bugs, comments, and suggestions to Gary Howell, CEERD-HC, G.Howell@chl.wes.army.mil . Support for applications developers using the COM interface is available by prior arrangement.