


## Geologix: GEO Software Suite

GEO Software Suite (SDC Geologix)	
<b>Product Description</b>	<p>GEO Software Suite Version 5.70.xx WITSML Object Specifications Version V1.2 WITSML API Specification Version V1.2 GEO Software is a tightly integrated suite of applications that serve the recognized needs of wellsite and operations geoscientists for the collation, presentation, interpretation and sharing of well log data and information. Consisting of well log authoring tools (GEO™, GEOLite™ and GEOLogger™) each built upon the unique GEO dynamic document structure, the GEO Software Suite is augmented by functionality to simplify the sharing and collaboration of well log data, particularly with its now widely adopted GEOe-View™ interactive log viewing and printing software.</p> <p>The GEO applications are already capable of both importing and exporting data in WITSML format, and were independently reported to be the first software of its type on general release with this functionality.</p> <p>One of the typical uses of GEO is to create a Mudlog or Lithlog display by automatically loading sensor data through WITSML Log object(s) whilst allowing the user to speedily update the plot with both lithology and descriptive information. The facility to transmit such data as a WITSML Mudlog object means that it can be delivered to the right systems and the right people at the right time. Moreover, Geologix has demonstrated the use of Mudlog Object in not only recreating a mudlog plot but also in the generation of various mudlog reports.</p>
	<p>SDC Geologix is an independent software development company serving the oil &amp; gas industry worldwide, from bases in the UK, USA and Indonesia since 1993. As a long-serving member of POSC, SDC Geologix has actively participated in the evolution of WITSML and embraced this data-transfer standard within the continuous development of all its software products.</p> <p>For more information about how WITSML is being deployed within the GEO Software applications, please contact SDC Geologix via their website at <a href="http://www.geologix.com/">http://www.geologix.com/</a>.</p> <p>WITSML Activities: Steering/Technical committee involvement with specific focus on Mudlog and other relevant objects.</p> <p>Contact Persons: Samit Sengupta (steering committee), Edward Clements (technical committee)</p>
<b>Availability</b>	From August 2005
<b>Submitter Information</b>	<p>Samit Sengupta Telephone <a href="tel:+441603706900">GB +44 1603706900</a> <a href="tel:+441603706900">Call</a> Geologix Ltd., Rosebery Court, St. Andrews Business Park, Norwich, NR7 0HS, UK <a href="mailto:ssengupta@geologix.com">ssengupta@geologix.com</a> November 2, 2005</p>

**WITSML Function Coverage**

Check all that apply. Explain limitations and/or special circumstances in the Comments area.

Notes:

Functional coverage is organized according to five kinds of product functionality with respect to the WITSML Standards: two kinds of client functions and three kinds of server functions.

- A product may exhibit multiple kinds of functionality.
- The terms *client* and *server* are used here exclusively with respect to the WITSML Server API interfaces. Clients issue requests to servers. Servers receive and respond to requests from clients.
- Behaviors for products that do not use the WITSML Server API are classified in an analogous manner.

The five product classifications of WITSML functional coverage are:

- Client Products --
  1. **WITSML Producer Client** -- a product that generates or otherwise obtains data that is formulated as WITSML object instances and sent to a WITSML Server to be incorporated in that server's data population. Examples of such products include products that pick up real-time data from sensor devices, format it, and send it to a server; and products that extract data from data stores, format it, and send it to a server.
  2. **WITSML Consumer Client** -- a product that issues requests for data as queries of subscriptions to a WITSML Server and then receives data as query responses or subscription publications. Examples of such products include products that acquire data from a server, possibly reformat it, and delivery it to an application program or viewer utility.
  - 1&2. Products the exhibit **combined Producer and Consume Client** functions may be application programs that operate directly on a WITSML Server, such as a mudlogging application or a pore pressure analysis application.
- Server Products --
  3. **WITSML Receiving Server** -- a product that performs WITSML Server functions in general and, in particular, acquires data from external sources. Data acquisition may be through WITSML API interfaces or other mechanisms.
  4. **WITSML Delivering Server** -- a product that performs WITSML Server functions in general and, in particular, delivers data to external destinations. Data delivery may be through WITSML API interfaces or other mechanisms.
  5. **WITSML Managing Server** -- a product that performs WITSML Server functions in general and, in particular, supports requests from authorized client applications to augment (extend), modify, or delete (part or all) WITSML object instances.
  - 3&4. The general understanding and expectation is that a product characterized as a WITSML Server supports **both Receiving and Delivering Server** functionality.
  - 3&4&5. The **addition of Managing Server** functionality allows a WITSML Server product to do more than store and forward data, such as supporting data quality management client applications that help ensure the integrity and quality of data content in a Server data population.
- General Functions --
  6. Virtually all products associated with the WITSML Standards will issue and/or process **WITSML Server General Functions** to determine the capabilities and version of a server product.

**1. WITSML Producer Client**

A product that (generates and) sends WITSML object instances to a destination process:  
1a [] Sends to a WITSML Server using AddToStore interface  
1b [] Otherwise

2. <b>WITSML Consumer Client</b>	A product that requests and receives WITSML data from a source process: 2a [ <input type="checkbox"/> _X_] Queries a WITSML Server using GetFromStore interface 2b [ <input type="checkbox"/> ] Subscribes to a WITSML Server using Publish interface 2c [ <input type="checkbox"/> ] Otherwise
3. <b>WITSML Receiving Server</b>	A product that performs the WITSML Server interfaces and receives data from source processes: 3a [ <input type="checkbox"/> ] Receives WITSML object instances via AddToStore interface 3b [ <input type="checkbox"/> ] Otherwise receives WITSML object instances 3c [ <input type="checkbox"/> ] Receives non-WITSML form data treated as if it were WITSML object instances or a virtual equivalent
4. <b>WITSML Delivering Server</b>	A product that performs the WITSML Server interfaces and delivers data to destination processes: 4a [ <input type="checkbox"/> ] Delivers WITSML data in response to queries via GetFromStore interface 4b [ <input type="checkbox"/> ] Publishes WITSML data in response to subscriptions via the Publish interface 4c [ <input type="checkbox"/> ] Otherwise delivers WITSML data 4d [ <input type="checkbox"/> ] Delivers non-WITSML form data derived from WITSML object instances or a virtual equivalent
5. <b>WITSML Managing Server</b>	A product that performs the WITSML Server interfaces and manages (augments, changes, deletes portions, or deletes entirely) WITSML object instances or a virtual equivalent: 5a [ <input type="checkbox"/> ] Processes modification requests via AddToStore, UpdateInStore, DeleteFromStore interfaces 5b [ <input type="checkbox"/> ] Otherwise processes modification requests
6. <b>WITSML General Functions</b>	A product that issues general WITSML Server interface requests to a WITSML Server: 6a [ <input type="checkbox"/> _X_] Issues GetVersion and/or GetCapabilities A product that performs the general WITSML Server interfaces: 6b [ <input type="checkbox"/> ] Processes GetVersion and/or GetCapabilities
<b>WITSML Object Coverage</b>	Mark D for <b>Deliver</b> and R for <b>Receive</b> , as applicable. If all functions do not apply, note either functions supported or functions not-supported, e.g. supported by 1a. Explain other limitations or special cases in the Comments area.
	[ <input type="checkbox"/> ] Realtime
	[ <input type="checkbox"/> ] Well
	[ <input type="checkbox"/> ] Wellbore
	[D/R] Log & WellLog
	[ <input type="checkbox"/> ] Trajectory & Traj. Stn.
	[ <input type="checkbox"/> ] Message
	[D/R] Mud Log
	[ <input type="checkbox"/> ] Rig
	[ <input type="checkbox"/> ] Survey Program
	[ <input type="checkbox"/> ] Target
	[ <input type="checkbox"/> ] Fluids Report
	[ <input type="checkbox"/> ] Operations Report

	<input type="checkbox"/> Risk
	<input type="checkbox"/> Formation Marker
	<input type="checkbox"/> Conventional Core
	<input type="checkbox"/> Sidewall Core
	<input type="checkbox"/> Cement Job
	<input type="checkbox"/> Tubular
	<input type="checkbox"/> BHA Run
	<input type="checkbox"/> Other, specify: _____
	_____
	_____
<b>Comments:</b>	None.
	_____
	_____
<b>Last Update</b>	November 2, 2005 by Samit Sengupta