

Smith Int'l: WITSML Store/Services

| Smith WITSML Store/Services (Smith International) | |
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| Product Description | <p>Smith WITSML Store/Services Version: V 1.0 WITSML Object Specifications Version: V1.2 WITSML API Specification Version: V1.2</p> <p>The Smith WITSML Store/Services provides seamless flow of well site data between operators and service companies to speed and enhance decision-making. It provides secure data access, data storage and data archival capabilities.</p> |
|  | <p>Smith International, Inc. is a leading worldwide supplier of premium products and services to the oil and gas exploration and production industry, the petrochemical industry and other industrial markets operating through four business units, M-I SWACO, Smith Technologies, Smith Services and Wilson. The Company provides a comprehensive line of technologically-advanced products and engineering services, including drilling and completion fluid systems, solids-control equipment, waste-management services, production chemicals, three-cone and fixed cutter drill bits, turbines, fishing services, drilling tools, underreamers, casing exit and multilateral systems, packers and line hangers. The Company also offers supply-chain management solutions through extensive North American branch network providing pipe, valves, fittings, mill, safety and other maintenance products.</p> <p>Smith Technologies is committed to the WITSML standards and has been an active member of the WITSML. Smith continues to develop real-time simulation and optimization programs for use with WITSML protocols.</p> <p>WITSML Contact Persons: David Moran, Yashodhan Gidh</p> |
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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

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| 2. WITSML Consumer Client | 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. WITSML Receiving Server | 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. WITSML Delivering Server | 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. WITSML Managing Server | 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. WITSML General Functions | 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"/> _X_] Processes GetVersion and/or GetCapabilities |
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| WITSML Object Coverage | Mark D for Deliver and R for Receive , 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"/> _RD_] Realtime |
| | [<input type="checkbox"/> _RD_] Well |
| | [<input type="checkbox"/> _RD_] Wellbore |
| | [<input type="checkbox"/> _RD_] Log & WellLog |
| | [<input type="checkbox"/> _RD_] Trajectory & Traj. Stn. |
| | [<input type="checkbox"/> _RD_] Message |
| | [<input type="checkbox"/> _RD_] Mud Log |
| | [<input type="checkbox"/> _RD_] Rig |
| | [<input type="checkbox"/> _RD_] Survey Program |
| | [<input type="checkbox"/> _RD_] Target |
| | [<input type="checkbox"/> _RD_] Fluids Report |
| | [<input type="checkbox"/> _RD_] Operations Report |
| | [<input type="checkbox"/> _RD_] Risk |

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| | [_RD_] Formation Marker |
| | [_RD_] Conventional Core |
| | [_RD_] Sidewall Core |
| | [_RD_] Cement Job |
| | [_RD_] Tubular |
| | [_RD_] BHA Run |
| | [_RD_] Other, specify: wellboreGeometry |
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| Comments: | Fully tested with Smith Product Offerings. |
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| Last Update | 10/24/2005 by Yashodhan Gidh |