### Smith WITSML Store/Services

#### Product Description

**Smith WITSML Store/Services**

- Version: V 1.0
- WITSML Object Specifications Version: V1.2
- WITSML API Specification Version: V1.2

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.

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.

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.

WITSML Contact Persons: David Moran, Yashodhan Gidh

#### Availability

- From: 
- To: 

#### Submitter Information

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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 that 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.

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1. **WITSML Producer Client**

A product that (generates and) sends WITSML object instances to a destination process:

1a [X] Sends to a WITSML Server using AddToStore interface
1b [ ] Otherwise
## 2. WITSML Consumer Client
A product that requests and receives WITSML data from a source process:
- 2a [X] Queries a WITSML Server using GetFromStore interface
- 2b [X] Subscribes to a WITSML Server using Publish interface
- 2c [ ] Otherwise

## 3. WITSML Receiving Server
A product that performs the WITSML Server interfaces and receives data from source processes:
- 3a [ ] Receives WITSML object instances via AddToStore interface
- 3b [ ] Otherwise receives WITSML object instances
- 3c [ ] 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 [ ] Delivers WITSML data in response to queries via GetFromStore interface
- 4b [ ] Publishes WITSML data in response to subscriptions via the Publish interface
- 4c [ ] Otherwise delivers WITSML data
- 4d [ ] 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 [ ] Processes modification requests via AddToStore, UpdateInStore, DeleteFromStore interfaces
- 5b [ ] Otherwise processes modification requests

## 6. WITSML General Functions
A product that issues general WITSML Server interface requests to a WITSML Server:
- 6a [X] Issues GetVersion and/or GetCapabilities
- 6b [X] Processes GetVersion and/or GetCapabilities

### 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.

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**Comments:**

Fully tested with Smith Product Offerings.

**Last Update:**

10/24/2005 by Yashodhan Gidh