WITSML Product Certification Program

Q1	Product Name, Version, Description
A1	**DecisionSpace® WITSML** **Version: 5000.9.2.10** **WITSML Object Specifications Version: V1.2, V1.3.1.1** **WITSML API Specification Version: V1.2, V1.3.1** DecisionSpace® WITSML is Halliburton's WITSML server and client software suite that supports Halliburton's INSITE® data store. DecisionSpace® WITSML software is a web-based application that supports both WITSML standard versions 1.3.1.1 and 1.2.0. The user interface for DecisionSpace® WITSML is accessed through a Web browser. DecisionSpace® WITSML software provides the following capabilities: • Receive data streams from one or more WITSML sources. • Produce one or more WITSML data streams • Store received data in an INSITE® database • Import from a WITSML data file • Export to a WITSML data file Users can view WITSML objects organized according to the WITSML standard. Object data values are shown as formatted text or raw XML. Users can create and save data maps that map selected variables in WITSML data format to the corresponding INSITE® ADI database format.
Q2	Vendor Name, Logo, Description
A2	**Halliburton** **HALLIBURTON** Founded in 1919, Halliburton is one of the world's largest providers of products and services to the energy industry. With approximately 50,000 employees, representing 140 nationalities, and operations in approximately 70 countries, the company serves the upstream oil and gas industry throughout the lifecycle of the reservoir – from locating hydrocarbons and managing geological data, to drilling and formation evaluation, well construction, completion and product optimization.
Q3	Product Availability (from, to)
A3	From: November, 2009
Q4	Form Submitter Information
A4	Tarkan Karadayi RTS - WITSML Software Development Lead Halliburton

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Q5	WITSML Functional Coverage. This is described in light of definitions provided directly on the form of functions of Client products as producers and/or consumers, of Server products as Receiving, Delivering, and/or Managing Servers. Functionality is summarized by checking which of sixteen overall functions are exhibited by the product.
A5	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 [_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 [____] 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 [_X_] 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 [_X_] 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 [_X_] 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 A product that performs the general WITSML Server interfaces: 6b [_X_] Processes GetVersion and/or GetCapabilities
Q6	WITSML Data Coverage. This is described by indicating for each of twenty types of data whether the data is Delivered and/or Received by the product. Provision for additional data type support is given. Special limitations between Functions and Data must be explained.
A6	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. [_DR_] Realtime [_DR_] Well [_DR_] Wellbore [_DR_] Log & WellLog [_DR_] Trajectory & Traj. Stn. [____] Message [_DR_] Mud Log [____] Rig [____] Survey Program [____] Target [_DR_] Fluids Report [____] Operations Report [____] Risk [_DR_] Formation Marker [____] Conventional Core [____] Sidewall Core [____] Cement Job [_DR_] Tubular [_DR_] BHA Run [_DR_] WB Geometry (Wellbore Geometry) [____] Other, specify: _____
Q7	Additional Information (optional)
A7	
Q8	Form Submission Date.
A8	March 2, 2017 by Tarkan Karadayi