

Use Case 3b (Transfer LWD Data from PPDM to WITSML)

Title: Transfer LWD data (e.g. gamma ray) from a PPDM data repository to a WITSML-enabled application.

Use Case Name	Create a WITSML file from PPDM for a Well Log
Version	24June2013 V1.0 – Initial Release
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Goal	A geoscientist wants to load well log data from the corporate PPDM data repository into an application/project database that supports WITSML import. Once the desired well log curve(s) has/have been selected, the process should be completely automated. All possible WITSML attributes for Well, Wellbore and Log should be included.
Summary Description	An Operator or Service Company geoscientist wants to load LWD data (Gamma Ray, ROP, etc) from a corporate repository to use it in petrophysical and geological workflows. The desired workflows require data formatted according to the WITSML standard. This will enable greater collaboration across the organization; enable distributed workflow and timely decisions.
Actors	<ul style="list-style-type: none"> • Requesting geoscientist • PPDM Repository • PPDM navigation/query tool • WITSML-enabled application subsystem.
Triggers	<ul style="list-style-type: none"> • Geoscientist is assigned a project that requires LWD data from the corporate repository
Pre-conditions	<ul style="list-style-type: none"> • Log data for the desired wells must have been previously uploaded into the corporate repository. • WITSML-enabled application programs/systems must be available to the geoscientist
Primary or Typical Scenario	<p>Once the aforementioned pre-conditions are met, the use case is as follows:</p> <ul style="list-style-type: none"> • A geoscientist is assigned an analysis job requiring well logs to be processed • The geoscientist chooses an analysis tool that accept WITSML input • The geoscientist searches the PPDM repository to identify the well log of interest • After designating the desired log, the geoscientist specifies an export to WITSML format • The system extracts the desired data from the PPDM repository and transforms it into a WITSML format file • The geoscientist loads the data into the analysis tool and proceeds with the project
Alternative Scenarios	<ul style="list-style-type: none"> • The geoscientist may wish to run an application that queries a WITSML-compliant database directly. In this case, a WITSML API that maps the WITSML queries to PPDM accesses and returns the results in WITSML format will be required.

Post-conditions	<ul style="list-style-type: none"> • A WITSML file will be generated that meets the geoscientist's selection criteria.
Business Rules	<p>Basic approach/considerations:</p> <ul style="list-style-type: none"> • Through a query tool, select <ul style="list-style-type: none"> ▪ The well of interest ▪ The well bore of interest ▪ The well log of interest ▪ The curves of the log of interest ▪ The index interval of interest • Designate the desired output format (e.g., WITSML) • Specify the file name and directory in which to create the file • Extract the information from the PPDM tables and write in the desired format
Notes	<p>Bulk curve data is beyond the scope of this POC but could be stored in the records management module in PPDM.</p>
Definitions	<p>Include references to existing glossaries or dictionaries, as well as explicit definitions of terms used in the use case description that may be unfamiliar or unclear to a reader.</p>