B2|Stratabugs Integration Module

Functional description

The **B2|Stratabugs Integration Module** (IM) connects to an Openworks database via the Openworks system developer kit API, and provides analysis and storage of Chronostratigraphic and Biostratigraphic information coming from Stratabugs database, in the form of Well Pick. The primary functionality of the B2|Stratabugs IM is to provide an interface between the Stratabugs and OpenWorks data domains which allows for simplified data transfer and data validation between these domains.

General technical considerations

In mapping data from the Stratabugs domain to Openworks, a significant quality assurance and translation process is required. In general the Stratabugs IM must

- Read and parse/map the Openworks stratigraphic columns related to Bio/Chrono Stratigraphy - an Openworks connection is required for each instance of this IM. Currently SH BIOZONATION 2008 and CHRONO 2008 are parsed, but this may be extended to LITHOSTRAT_BSEA and LITHOSTRAT_MIDN to allow insertion of litho picks by biostratigraphers in the future. Configuration of the primary BIO/CHRONO strat columns is configurable in the Autodeploy.xml file for the IM. See BioStratColumnName and BioStratColumnId and ChronoStratColumnName and ChronoStratColumnId variables in the configuration file, which refer to specific strat columns in the openworks database.
- Receive exported datafiles (csv) from Stratabugs and construct the corresponding Pick data for each interval specified in the exported file.

Quality control considerations applied to all Stratabugs data

After a given Stratabugs export csv file is received by the Stratabugs IM from a **B2|Stratabugs** application, it must be parsed and quality-controlled. This process consists of the following steps for each row (line) in the imported csv file:

- Check for valid wellname (SUMLOG), interval, top/base depth, top/base boundary, interpreter, and date. Files exported from Stratabugs for import to the B2|Stratabugs IM must be exported with ALL columns.
- Check that top and base depths are not equal in the exported file. (Base - Top > 1.0m)
- Correct (edit) interval name via specific naming conventions to match the appropriate Openworks Strat Column via the following automatic operations:
    - Convert “late” to “Late”, “early” to “Early”, and “middle” to “Middle” within the interval name.
    - reverse the order as given in Stratabugs interval from Qualifier + Interval to Interval + Qualifier. i.e. - “late Jurassic” becomes “Jurassic Late”
- Match the resulting interval name (e.g. - Jurassic Late) to one and only one Strat Unit within the appropriate Openworks Strat Column.

- Convert the Stratabugs boundary to an appropriate Openworks confidence (pick_conf_fact) via the following conversion algorithm.
    - Stratabugs Confident == Openworks "G" (good)
    - Stratabugs Unconformable == Openworks "E" (eroded)
    - Stratabugs Possible or Probable == Openworks "P"
- Convert the Stratabugs top/base type to the pick source. This allows the resulting OpenWorks pick to correctly reflect the type data which is present in Stratabugs, indicating whether the data came from cuttings, core, log, or some other source.
- Convert the mod_by data which is exported from Stratabugs to the pick_by (interpreter) for the resulting pick data.
- Create and populate a remark for the resulting pick, consisting of the actual user who makes the insertion, the date of the original data in Stratabugs, and any other relevant info up to the allowed length of the OpenWorks remark string on gdiPick.

Once all of the desired Stratabugs picks have been successfully parsed and converted to their equivalent Openworks Pick form, and the resulting picks are saved to the Openworks database via command to the **B2|OpenWorks Well Monitor IM**. This command and data is sent directly to the **B2|OpenWorks Well Monitor IM**, and the interface is documented further in its documentation.

Supported data types

The **B2|Stratabugs IM** supports the following data types:

Datatype	Comments	Read	Write
Stratabugs CSV export files	All columns	Y	N
OpenWorks Strat Column and Strat Unit	R2003+R5000	Y	N

Released versions

The following table lists the released versions of **B2|Stratabugs IM**:

Version	Supported B2|Collaboration Server	Supported OW version
V3.2	V3.2 and v4.0	OW R2003
V4.0	V4.0	OW R2003, R5000
V4.1	V4.0, V4.1	OW R2003, R5000

Technical requirements

Operating system: Linux (RHEL) 64-bit

Software requirements: Requires Oracle Java

Other requirements:

- Requires a running instance of **B2|Collaboration and Integration Server**.
- Requires OpenWorks license and OW SDK (but this is shared between all OpenWorks IMs for each field / OW server)
- Requires a system user with "Interpreter" access to the relevant data in OW

B2 infrastructure

The **B2|Integration Modules** are components in the B2 suite. The B2 suite also contains the required server and integration components, such as the **B2|Collaboration and Integration Server**, **B2|Meta Model** and **B2|Web Service**.

This common infrastructure serves end-user application clients such as the **B2|Integrated Well Planning**, **B2|Integrated Operations**, **B2|Virtual View** and **B2|Virtual Arena**.