StrataExplorer

Environmental Data Management System (EDMS)

EDMS is used to improve and standardize environmental data collection, management, and reporting in an efficient and cost-effective manner. This is accomplished by implementing a documented, auditable process for the collection, storage, and reporting of environmental field data. This process can be divided into four stages:

1. Scheduling and Sample Planning

The first stage is the scheduling and planning of sampling events. EDMS allows project managers to design, delegate, and monitor sampling events. Sampling events can be either singular or reoccurring.

2. Data Collection

When a sampling event occurs, detailed sample information can be recorded for each environmental media on a Windows laptop or tablet using EDMS or EDMS Field. Sample data collected using EDMS Field can be uploaded to the main database remotely as an Electronic Data Deliverable (EDD).

3. Lab Analysis

Samples submitted for lab analysis are tracked during the shipping, receiving, lab analysis, and reporting process. Analytical labs using EDMS Lab can upload analysis results to the main EDMS database automatically as an EDD.

4. Reporting

Sample and lab analysis results can be collated and reported on in a variety of tables and graphs. These tables and graphs can be easily customized to meet internal and external needs. In addition, EDMS data is fully integrated and available for use by other modules within StrataExplorer.
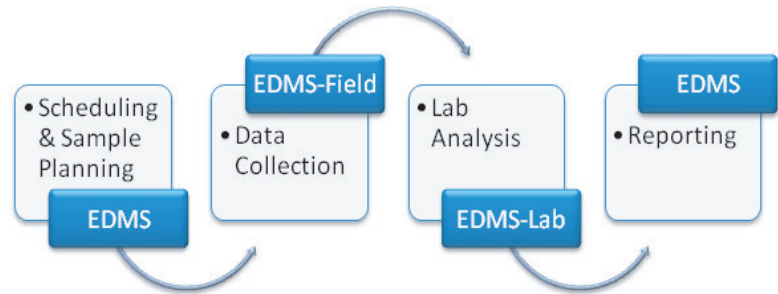
Quick Facts

This extension module can be used to create, edit and print mining, oil, geotechnical, and environmental boring and well logs. The types of data that can be displayed on a log will depend upon the industry.

The module is the upgrade to WinLoG version 4. It includes all of the features in version 4 as well as the following new features:

- Industry specific columns
- Sidebar for quick and easy editing of data
- Graph macros
- Petrophysical macros
- Importation of LogSleuth data
- Importation of CanStrat data
- The type of data and units are stored
- Import scripts
- Importing of WinLoG version 4 logs
- Uncomformity and stratigraphic tops
- Chemistry data columns
- Soil and rock property columns
- Hydrocarbon test data columns
- Data for all allowed datasets can be entered for a log even if they are not contained within the template

After the data for the boring and well has been entered in this module it can be used to create cross-sections and contour maps in the other modules. In addition, the borings and wells can be displayed in 3D showing their lithologies and any deviated paths.

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Features

Scheduling and Tasks

- Set sampling schedule and frequency for work flow elements within a project.
- Display sampling schedule in tasks list and calendar.
- Assign sampling tasks to others with notification and reminder.
- Notification capability of non-completed tasks.
- Prioritization of sampling tasks and parameters (required for permit, etc.).
- Provide required sampling information in task and pass down to samples and stations.
- Auto-populate samples from stations assigned to task.
- Grouping of parameters to be sampled (BTEX, Metals, etc.).
- Sample tracking and notification.
- Ability to store shipping company and tracking numbers.
- Automatic notification of sample exceedences.
- Notifications by email, internal, or SMS text.

Stations and Samples

- Stations used to represent physical location of one or more samples.
- Sample collection at stations can occur singularly, continuously or at regularly scheduled intervals.
- Entry of station elevation and survey methodology.
- Entry of station type, purpose, construction and decommissioning.
- Entry of soil, rock, groundwater, surface water, fluid, solid, air and biological samples.
- Capture of sample data, personnel, methodology, and equipment.
- Capture of location of samples and sampling stations.
- Ability to auto-populate bottle types and print sample labels.
- Multiple customizable sample descriptors.
- Entry of site and weather conditions at time of sampling.
- Capture and calculation of surface water flows.
- Ability to store site photographs with samples.
- Ability to specify dry and wet weights for soil samples.
- Entry of species, age, gender, etc. for biological samples.
- Ability to state and store recommended actions for samples.

Lab Analyses

- Printing of COC for specific labs.
- Automatic import of EDD data from labs with verification and acknowledgment.
- Import of lab results from XML in any format using scripts.
- Support for criteria limits and lab detection limits.
- Automatic conversion of concentration units.
- Capture of analysis method.
- Highlighting of exceedences upon import of EDD data.
- Automatic import and saving of lab certificate of analysis.
- Capture and reporting of field and lab duplicates, blanks, holding time, reference material, matrix and trip spikes, lab control samples, and surrogates.

Reporting and Integration

- Highlighting of sample exceedences in reports.
- Ability to export results to Excel or PDF.
- Preset report and customizable templates..
- Location of samples and sampling stations displayed in SE-GIS module.
- Linking of samples to wells or borings in WinLoG module.
- Display of sample information, water levels and concentrations in wells and borings.
- Gridding and contouring of groundwater levels and concentrations in SE-Map module.
- Display of sample locations in 3D displays.

General and Predefined Data

- Importing of GAEA supplied regulations for numerous countries and regions.
- Support for multiple limits and regulatory criteria.
- Lists for station information such as elevation datums, reference points, source scales and types, survey datums and methods.
- Lists for sample information such as sample types, animal species, collection methods, descriptors, equipment, fluid types, methodologies, plant species, QC sample types, rock composition, rock mineralogy, rock types, rock textures, soil consistency, soil porosity, soil types, and water source types.
- Lists for lab analyses information such as analysis methods, containers, descriptors, disposal methods, and preparation methods.