

Getting started guide for MEGS_Log 3.3

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Before you begin

Demonstration mode



If you have downloaded MEGS_Log and don't have a MEGS_Log licence dongle then MEGS_Log will only operate in demonstration mode. You will not be able to save any of the changes that you make to borehole files that you open, and you will not be able to print sample tags or graphics. All other tools and functions of the program should be available so that you can thoroughly test the software on your site's data.

More help is available

The instructions in this guide are intended to get you quickly up and working with the example boreholes that are provided with the MEGS_Log install.

In addition to this guide, MEGS_Log comes with extensive on-line help – available under the Help menu item in the main MEGS_Log window. You can also press the F1 key at any time within MEGS_Log to get context sensitive help.

If you are a Prolog version 2.1 or version 3 user

- Start up MEGS_Log by double-clicking on the desktop icon.
- Click on the right borehole display (the name at the top will turn pink to indicate its selection).
- Click the Open File icon () or select File then Open from the menu.
- Select the file called *PLexample*, ensure the Files of Type at the bottom of the browser window says *Prolog files (*.*)* and then click the Open button.
- A dialog box opens prompting you to select a schema to use. Pick the schema called *PL3example* and click OK.
- If every unit in the borehole display is shown as a red diagonal cross, then go to the Tools menu and select Options. Click on the Project tab, select *BHPLexample* for the hatch list. Click the OK button.
- Click the Open Trace icon () or click on the File menu and select Open Trace.
- Select the *ExampleDEN.LAS* file and click the Open button.

You are now ready to start correcting the example Prolog file. See the section on *Basic editing operations* below.

Defining custom schemas for Prolog files

If you would like to open your own Prolog file, then you will need to define your own Prolog “schema”. The best way to do this is to start MEGS_Log and, without opening any holes, go to Tools > Options on the menu, select the Settings tab and click on the Edit schemas button. You will see a dialog box similar to the following:

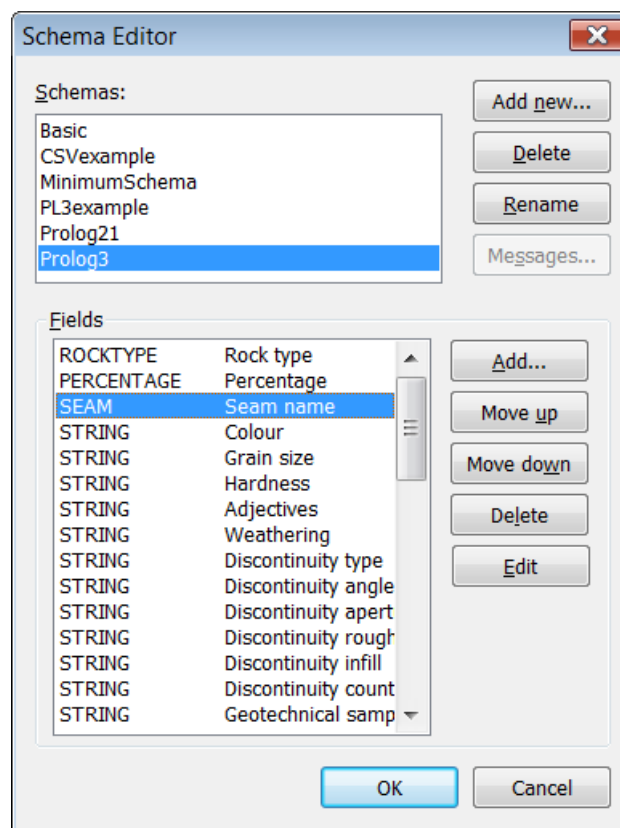


Figure 1: The Schema Editor dialog box

Click on the Add new button to display the New Schema dialog box.

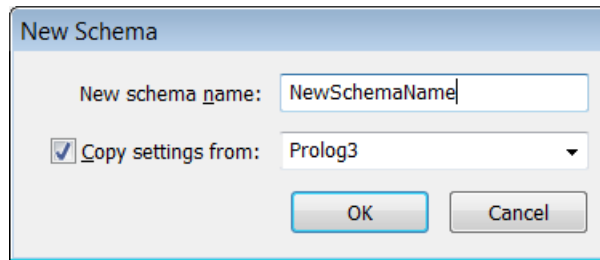


Figure 2: The New Schema dialog box

Enter a name for your new schema, and then select an existing Prolog 2.1 or Prolog 3 schema (for example, the *Prolog21* or *Prolog3* schemas, respectively, provided with MEGS_Log) to use as a starting point for the new schema. Click on OK to return to the Schema Editor dialog box.

You can now use the Schema Editor to edit the name and type of fields in the schema to match your Prolog configuration, as it appears in the main Prolog window. Note that there are some restrictions imposed on the schema by MEGS_Log and Prolog:

- For compatibility reasons, schemas intended for use with Prolog 2.1 and Prolog 3 should end with two *STRING* fields that are additional to the fields shown in the Prolog display. These additional fields mark the end of each record and are not available for logging data.
- Schemas for use with Prolog 2.1 need a total of 25 fields (including the extra *STRING* fields at the end of the schema). The number of fields for a schema intended to be used with Prolog 3 file can vary.
- The first three fields in the schema must be the *ROCKTYPE* field, followed by the *PERCENTAGE* field, followed by the *SEAM* field (if you intend to use MEGS_Log to assign seams and/or plies to units).
- The last three fields in the schema (before the extra *STRING* fields) must be the *RECOVERED* field, followed by the *THICKNESS* field, followed by the *BOTTOM* field.

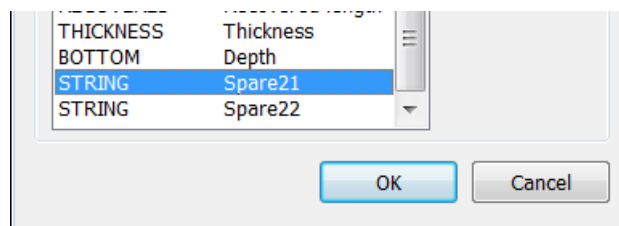


Figure 3: Example Prolog schema, showing the additional *STRING* fields at the end of the schema.



The type of the remaining fields should be selected to match the layout of your data. If you want to carry out correlation (assign seam and ply names to units) within MEGS_Log, then consider including a *SEAM* field or both a *SEAM* and a *PLY* field. If you want to assign sample numbers to units then include a *SAMPLE* field. Other fields should generally be given the *STRING* type, though *INTEGER* or *REAL* fields may also be appropriate – see the MEGS_Log online help for more information.

The field descriptions are only used within MEGS_Log to label the fields in the Unit Properties dialog box, or when exporting files from one schema to another.

Once you have finished editing your schema you should be able to open your own Prolog file in the same way as the *PL3example* hole detailed above.


If you are a Prolog version 4 user

MEGS_Log does not include an example file for Prolog 4.x. Instead, you can use the example file that is installed when Prolog version 4 is installed – typically *example1.prolog* in the *Prolog_4* folder in your *My documents* folder. Note that this file may require recalculation within Prolog to ensure that depths and thicknesses are consistent before you can load it into MEGS_Log.

- Start up MEGS_Log by double-clicking on the desktop icon.
- Click on the right borehole display (the name at the top will turn pink to indicate its selection).
- Click the Open File icon () or select File then Open from the menu.
- Set the Files of Type at the bottom of the browser window says *Prolog version 4.x files (*.prolog)*, navigate to the folder that contains the example Prolog 4 file, select the file and then click the Open button.
- A dialog box opens prompting you to select a schema and other settings to use when opening the file. For the example provided with Prolog 4, select Deduce schema, set the Data log to *RockType*, and click OK.
- If every unit in the borehole display is shown as a red diagonal cross, then go to the Tools menu and select Options. Click on the Project tab, select *BHPLexample* for the hatch list. Click the OK button.
- Click the Open Trace icon () or click on the File menu and select Open Trace.
- Select the *ExampleDEN.LAS* file and click the Open button.

You are now ready to start correcting the file. See the section on *Basic editing operations* below.

If you are a CSV file user

- Start up MEGS_Log by double-clicking on the desktop icon.
- Click on the right borehole display (the name at the top will turn pink to indicate its selection).
- Click the Open File icon () or select File > Open from the menu.
- Select the file called *Example.csv*, ensure the Files of Type at the bottom of the browser window says *CSV files (*.csv)* and then click the Open button.
- A dialog box opens prompting you to select a schema to use. Pick the schema called *CSVexample*. Check that the Quoting section has the radio button Use double quote (") selected. Heading rows should be 1 and the Interbedded unit record location should be picked as *No unit level record*. Click the OK button and the hole will be opened.

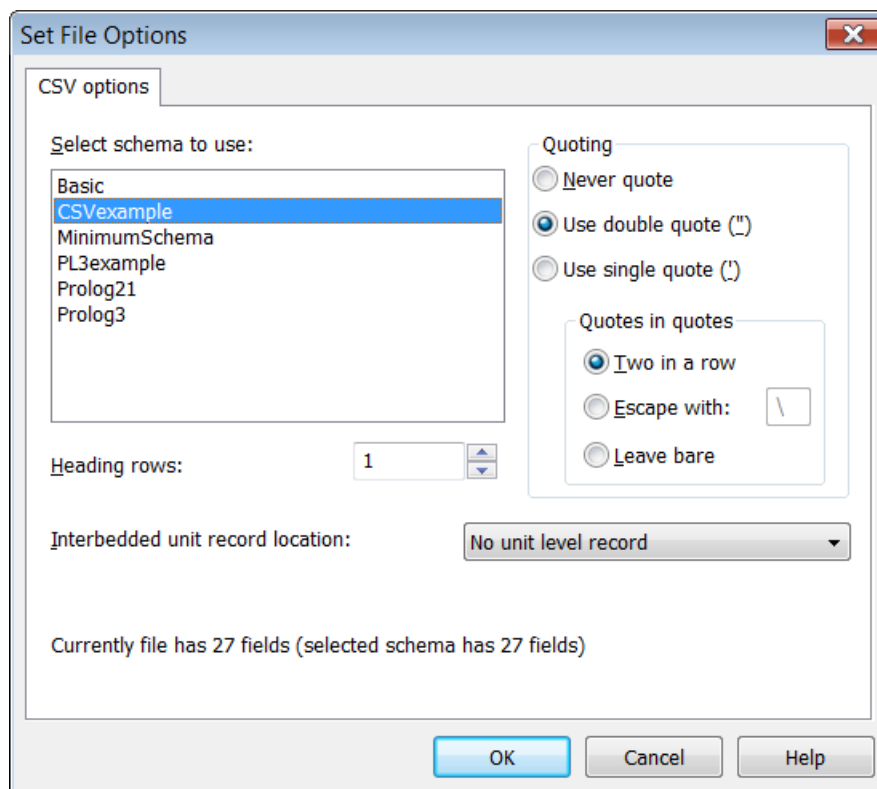



Figure 4: File settings for the CSV example

- If every unit in the borehole display is shown as a red diagonal cross, then go to the Tools menu and select Options. Click on the Project tab, select *BHCSVexample* for the hatch list. Click the OK button.
- Click the Open Trace icon () or click on the File menu and select Open Trace.
- Select the *ExampleDEN.LAS* file and click the Open button.

You are now ready to start correcting the example CSV file. See the section on *Basic editing operations* below for more information on how to edit boreholes.

Defining custom schemas for CSV files

If you would like to open your own CSV file, then you will need to define your own CSV “schema”. The best way to do this is to start MEGS_Log and, without opening any holes, go to Tools > Options on the menu, select the Settings tab and click on the Edit schemas button. You will see a dialog box similar to the following:

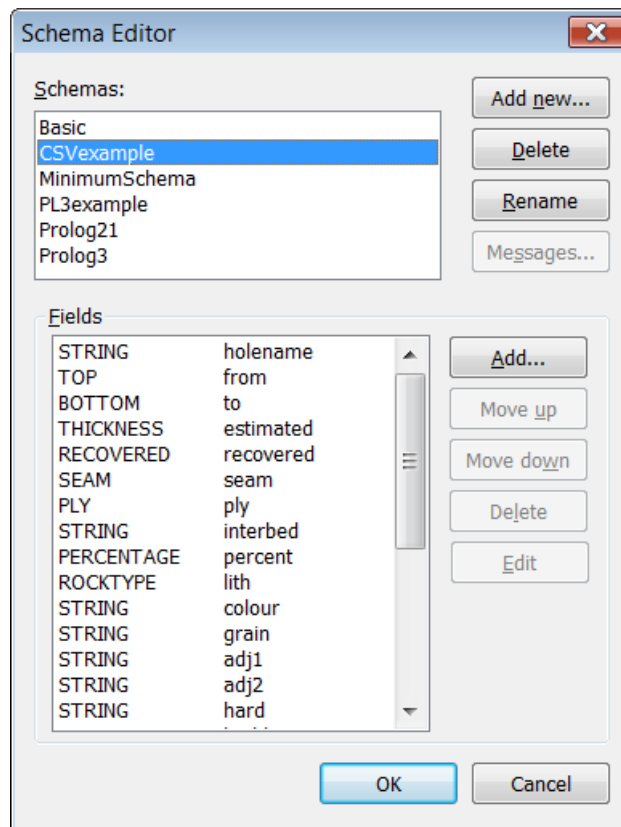


Figure 5: The Schema Editor dialog box

Click on the Add new button. Enter a name for your new schema and click on OK to return to the Schema Editor dialog box.

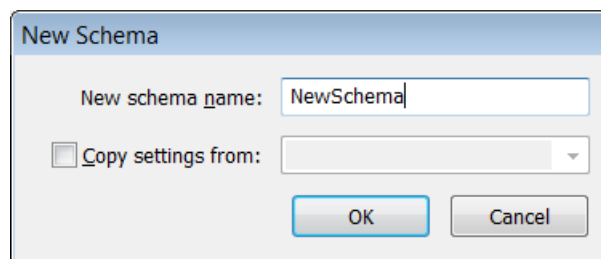


Figure 6: Creating a new schema

You can now use the Schema Editor to edit the name and type of fields in the schema to match the columns in your CSV file.

There are some fields that must be defined within the schema, these are *ROCKTYPE* and *BOTTOM*. Other fields that are significant for definition are *PERCENTAGE*, *SEAM*, *SAMPLE*, *PLY*, *RECOVERED* and *THICKNESS*. All other fields are simply defined as strings and will not be altered within MEGS_Log (unless you delete a unit, or merge one unit over another). The field names enclosed in quotation marks do not have to be exactly as written in the CSV file headings (you don't even need headings in the CSV file), they are simply the field names that will be displayed for each parameter in the Unit properties box within MEGS_Log.

Other CSV import settings

If you have interbedded units logged, you may need to adjust the settings for Interbedded unit record location in the CSV options tab window of Tools-Options. The following examples will give you an idea of what to select.

If your data looks like this:

<i>Holename,</i>	<i>From,</i>	<i>To,</i>	<i>Interbed,</i>	<i>Percent,</i>	<i>lith</i>
BHExample,	17.93,	18.66,	I,	50,	CL
BHExample,	17.93,	18.66,	I,	50,	CU

You should select *No unit level record*.

For this:

<i>DEPTH_FROM,</i>	<i>DEPTH_TO,</i>	<i>LITH,</i>	<i>LITH_PERCENT</i>
62,	87,	IB,	100
62,	87,	SL,	30
62,	87,	CL,	70

You should select *Before interbedded elements*.

If the indicator record for the interbedded unit occurs after the records containing lithology percentages, you would select *After interbedded elements*.

The *Unit rock type for interbedded units* field on the *Project* tab of the *Tools > Options* menu would be blank for the first example above, and should be *IB* for the second example. At present, *MEGS_Log* does not support the *Minex*-style of interbedded records where the second (third, ...) records have the same "from" value as "to". This is because the graphics cannot draw a pattern for a zero thickness element.

Basic editing operations

The following instructions assume that MEGS_Log is in the “Normal” editing mode (the default mode when the application starts and that no boreholes, units or traces are currently selected. The current editing mode is displayed in approximately the middle of the status bar at the bottom of the MEGS_Log main window, while selected objects are outlined in a different colour.

You can ensure that MEGS_Log is in Normal Mode and cancel the current selection by repeatedly pressing the Escape key until Normal is displayed in the status bar and none of the boreholes, traces or units are highlighted.

Adjusting unit depths

1. Move the mouse cursor over the boundary that you want to move, so the cursor changes to a double-headed arrow.



2. Hold the left button down and drag the boundary to the desired location.

Editing unit rock type/lithology

- Double left-click within the area of the unit that you want to change.

or

1. Select the unit that you want to change by left clicking in its area
2. Press the Enter key

or

- Right click within the area of the unit that you want to change, and select Set Rocktype.

All three of the above options will result in the Set Rock Type dialog box being shown.

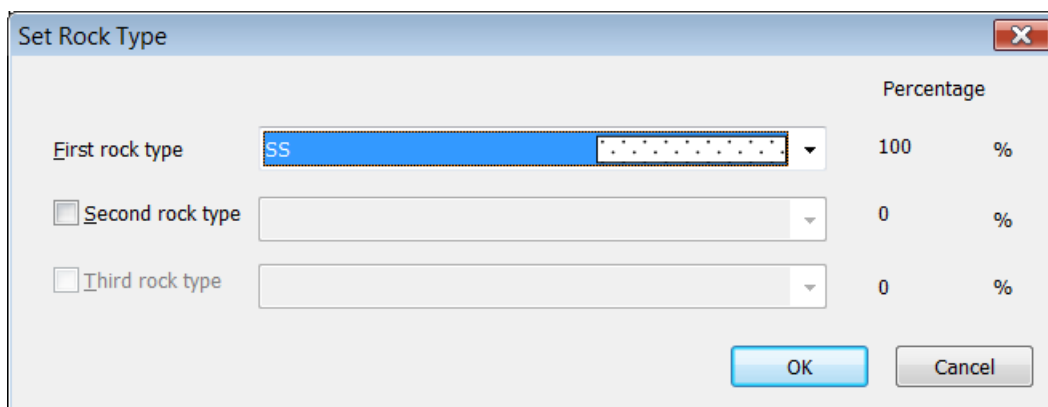


Figure 7: The Set Rock Type dialog box

Editing unit seams and plies

1. Right click on the area of the unit that you want to change and select Correlate.
2. If this is the first time you have used the correlation function within MEGS_Log you may be prompted to choose a correlation site. For the Prolog example discussed above choose *PL3exampleSITE*, while for the CSV example choose *CSVexampleSITE*.
3. Use the Correlate dialog box to specify the new seam and/or ply.

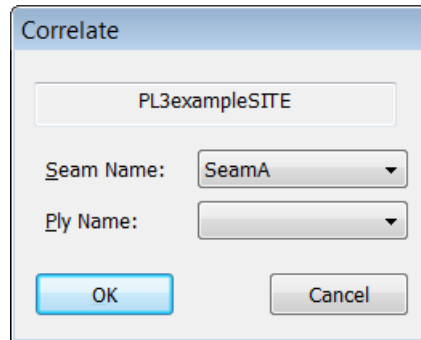


Figure 8: The Correlate dialog box

Note that MEGS_Log either displays seam and ply information or sample number information in the area immediately to the right of each borehole. You can change between seam and ply information or sample number information by using the View menu.

Editing unit sample numbers

1. Right click on the area of the unit that you want to change and select Sample Number.
2. Use the Sample Number dialog box to specify the new number.

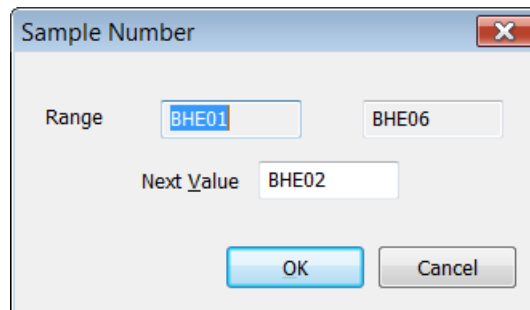


Figure 9: The Sample Number dialog box

Settings common to both Prolog and CSV files

The current hatch list

If your hole opens up and shows nothing but red crosses through every unit, then you need to change the hatch list. Hatch lists within MEGS_Log associate a particular rock type or lithology with a graphical pattern. The active hatch list also determines the list of rock types available to be assigned to a unit.

To change the active hatch list, select the Tools > Options menu item to display the MEGS_Log Options dialog box and then select the Project tab. You will see a pick-box for an item called Hatch list. For the Prolog example discussed above choose *BHPL3example*, while for the CSV example choose *BHCSVexample* from this list.

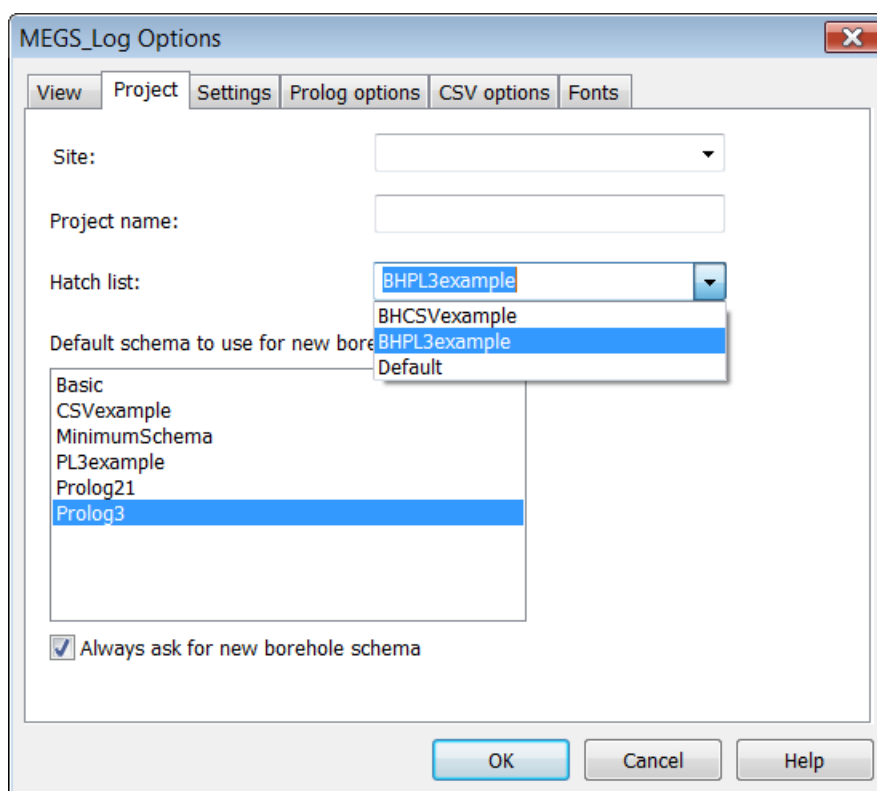


Figure 10: Setting the hatch list

If you want to change the names of the rock types/lithologies available in a particular hatch list, or if you want to change the pattern that is drawn for each rock type, or if you want to create a new hatch list, then use the Hatch List Editor. To display the Hatch List Editor, within the Options dialog box select the Settings tab and click the Edit hatch lists button.

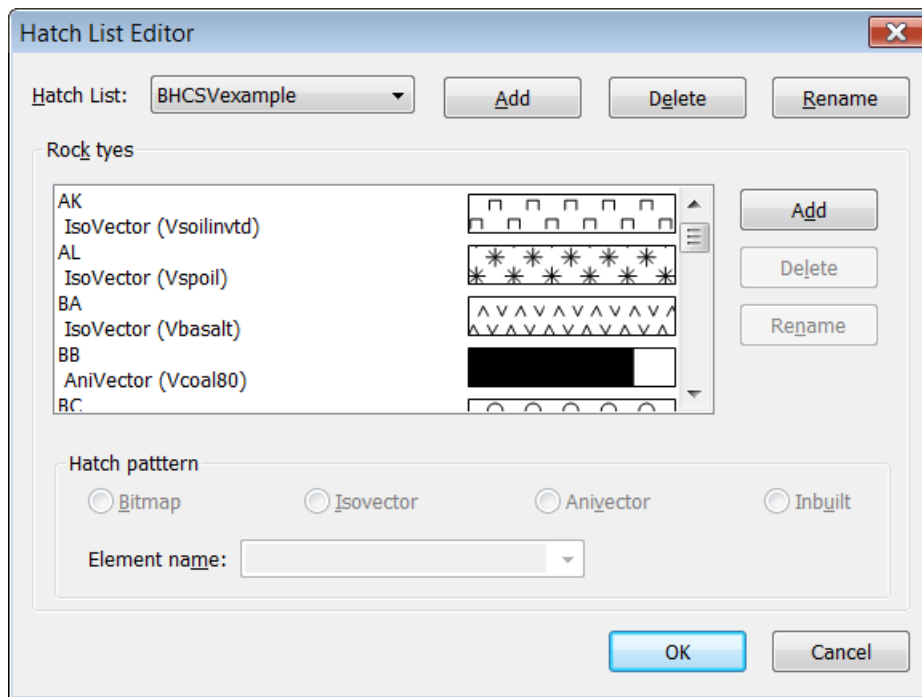


Figure 11: The Hatch List Editor dialog box

Three types of hatch patterns are available for use within MEGS_Log to draw the graphics associated with each rock type – “bitmaps” (fixed resolution images), “vectors” (scalable images) and “inbuilt”. MEGS_Log comes installed with both bitmap and vectors patterns that are suitable for most applications, however if necessary you can edit these patterns or create new patterns. The list of inbuilt patterns is fixed.

For more information on editing hatch lists, vectors and bitmaps consult the on-line MEGS_Log help.

Setting the list of seams and plies

When correlating, the list of seams and plies available from within MEGS_Log is determined by the “Site” setting. To change the current site, select the Tools > Options menu item to display the MEGS_Log Options dialog box and then select the Project tab. You will see a pick-box for an item called Site. For the Prolog example discussed above choose *PL3exampleSITE*, while for the CSV example choose *CSVexampleSITE* from the associated list.

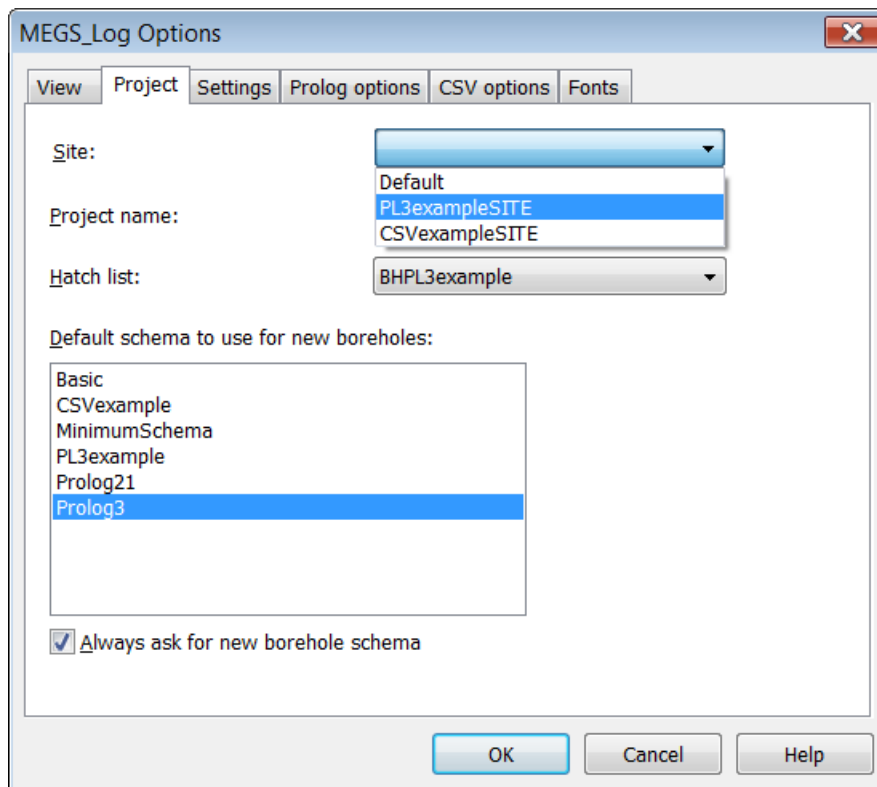


Figure 12: Setting the site to use for correlation

To create new sites, or to edit the list of seams and plies available for an existing site, use the Seams and Plies editor. To display the Seams and Plies editor go to Tools > Options on the menu, select the Settings tab and click on the Edit seams and plies button.

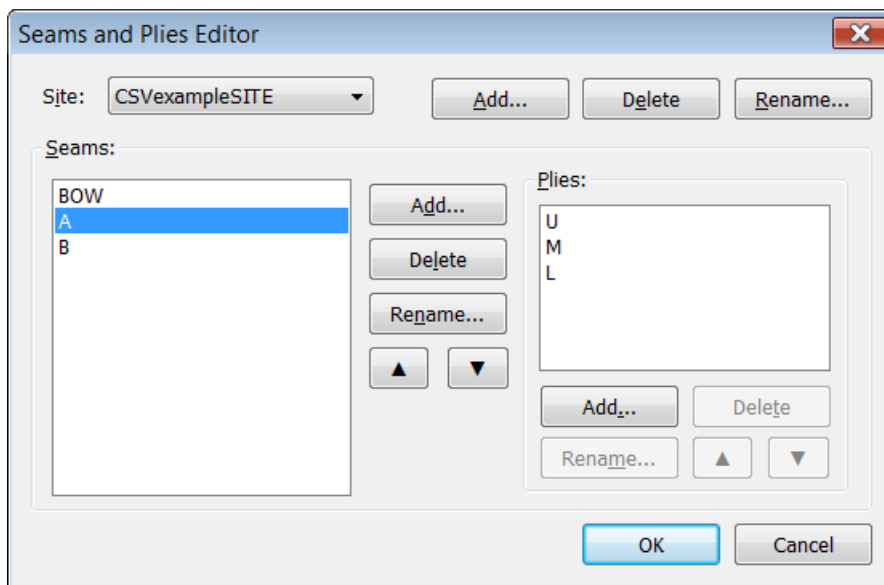


Figure 13: The Seams and Plies Editor dialog box

Where are the settings saved?

When you edit aspects of MEGS_Log configuration (schemas, hatch lists, seams and plies, etc) your changes will be saved to the configuration file (*MegslogConfig.txt*) in the user specific application data directory. On Windows XP this directory is typically *C:\Documents and settings\username\Application Data\MEGMS\MEGS_Log 3.0*, on Windows Vista it is typically

C:\Users\username\AppData\Roaming\MEGMS\MEGS_Log 3.0. Saving the config file in this folder means that installations of later versions of the software will not overwrite your configurations for file schemas, hatches, site seam codes etc. After carefully testing your schema you can copy your user specific configuration file over the default configuration file supplied with MEGS_Log (installed in the Program Files folder for MEGS_Log). All users on the computer will then be able to use that schema.

Note that installation of a new version of MEGS_Log may overwrite the configuration file in the Program Files folder for MEGS_Log. If you make changes to the file in this location it is strongly recommended that you save a copy elsewhere as a backup.

List of shortcut keys

<u>Keys:</u>	<u>Function:</u>
i	Zoom in
o	Zoom out
[Ctrl] – n	Create a new hole
[Ctrl] – o	Open a hole
[Ctrl] – s	Save the hole(s)
[Ctrl] – p	Print
[Ctrl] – z	Undo
[Ctrl] – f	Fine scroll on/off
Insert	Toggles between Overwrite & Insert modes
F1	Help
F2	Create boundary
F3	Pick & Drag
F4	Set Rock
F5	Merge
F6	Insert
F7	Set Base Depth
F8	Correlate / Sample Number
F9	Delete
Esc	Normal mode

Use the right-click mouse menu for:

- Unit Properties
- Merge
- Correlate
- Sample Number
- Set Rocktype
- Delete
- Set Scale
- Set Display Top Depth

When in NORMAL MODE:

- Left-click to select a unit. Click and drag to select multiple units.

- Use the double-headed arrow to move a unit boundary.
- [Alt] – click Creates a boundary
- [Alt] – click & drag Inserts a unit
- The Shift key switches the mode between Insert and Overwrite, so if (with Overwrite mode set) you select:
 - [Shift]+[Alt] – click & drag: MEGS_Log will insert a unit as if it were in Insert mode, or
 - [Shift] + drag: the double-headed arrow will move the boundary (and all others below it) as if it were in Insert mode.