PRO LOG

Installation & Tutorial Manual

Installation

ProLog is a Windows program and must be installed from within the Windows operating system.

The program is designed and written for 32 bit version's of Windows. Which at this moment means Windows 98/ME/XP /Vista or Windows 7.It also runs on 64 bit Vista and Windows7.

Place the CD in your CD drive. It should self-start. If it doesn't then double click on AutorunAll.exe from the root directory on the CD.

The CD contains two versions of Prolog. Install Version3 if you already have other copies of version3 installed and you wish to maintain consistency.

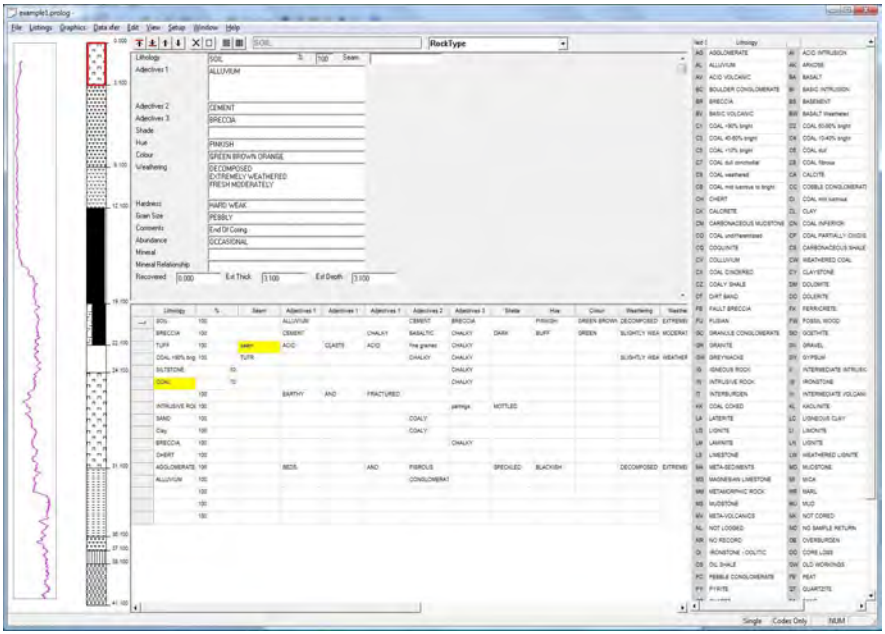
It also contains version4 which is recommended for new clients. It will run in parallel with version3 and does not change version 3 data.

Please select the appropriate Prolog installation option. The program will bring up an installation Wizard. We suggest that you accept the defaults.

Getting Started

When you first start ProLog, a screen similar to that below will appear.

The first thing that you need to be aware of is the fact that you can configure the prompts on this screen to suit your own particular projects.



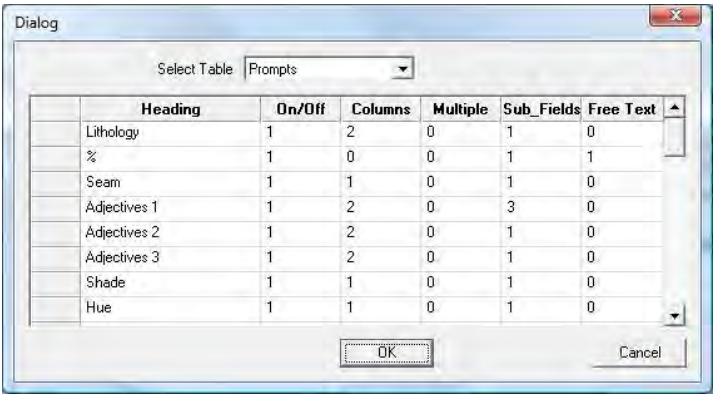
To do this you can use the Setup feature.

Pull down the Setup Menu and select Prompts.
The following dialog box will appear as below.

The columns and there functions are:

- Heading – you can use your own terminology to 'label' each of the entry fields
- On/Off – determines whether the field is displayed on not
- Multiple – If set to 1 the cursor stays in the current field and awaits further input. Enter Enter forces cursor to the next field.

- Sub_Fields – This creates a multi-line entry field. For example 3 gives you 3 lines.
- Free Text – This is a quality assurance option. Setting value to 1 only allows entries that are contained in the pop up menus.



	Heading	On/Off	Columns	Multiple	Sub_Fields	Free Text
	Lithology	1	2	0	1	0
	%	1	0	0	1	1
	Seam	1	1	0	1	0
	Adjectives 1	1	2	0	3	0
	Adjectives 2	1	2	0	1	0
	Adjectives 3	1	2	0	1	0
	Shade	1	1	0	1	0
	Hue	1	1	0	1	0

This table allows you to configure exactly which entry fields you will be prompted for, and the prompt you will see.

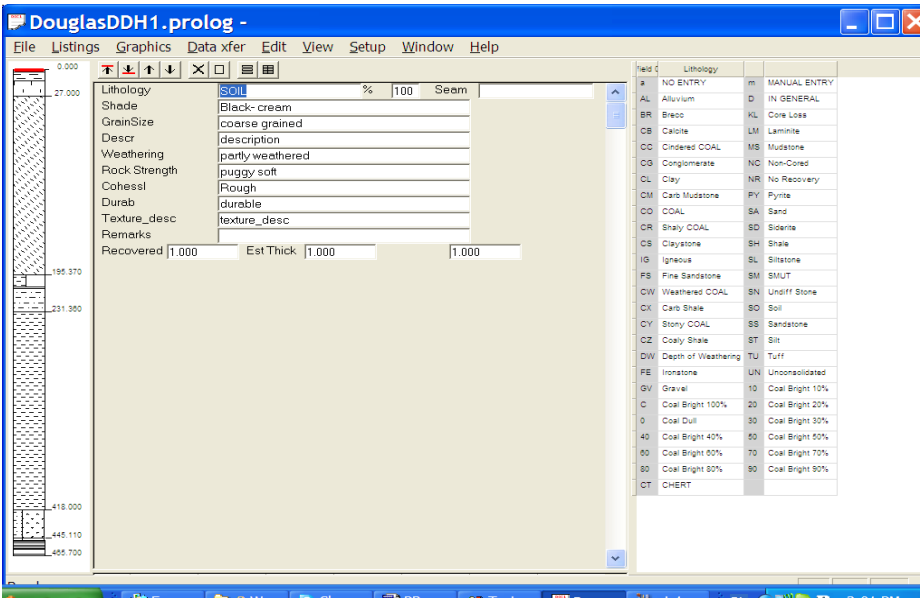
First we will examine how you can turn entry fields on and off to configure the entry screen to suit your own purposes.

Use the slider bar on the right to move down so you can see lines 9 to 16 in the table.

To maintain compatibility with data from previous versions of the program, On is represented by a 1, and Off is represented by 0 (zero).

Here we wish to dispense with the fields from Defects Orientation on Line 9 through Spare on Line 16, so enter zero in the On/Off Column for each of these lines.

Once you have completed that, select OK and the screen will now appear as below, showing only the entry fields you have selected.



As well as specifying which entry fields are displayed, you can also change the label adjacent to each field to suit yourself.

For example, pull down Setup, and select Prompts again.

This time select the “heading” box on Line 1 with your mouse. It will appear shaded around the box when selected.

Once the box is selected you can type in the new heading or label you would like to use, and what you type will replace the existing entry.

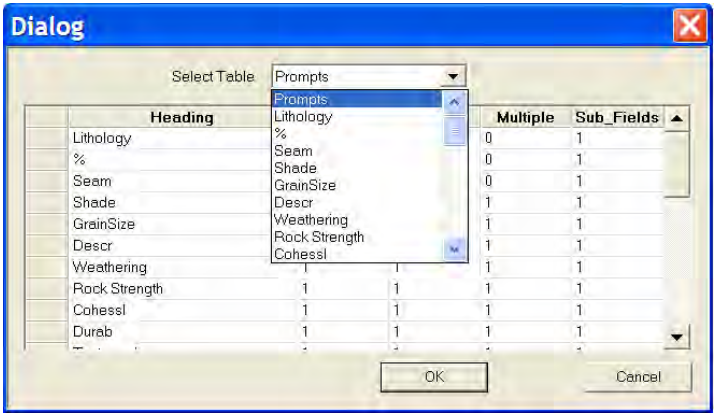
Here for example we have typed in “Colour” to replace Shade Colour, Granularity to replace Grain Size, and Descriptors to replace Adjectives.

You can use this same method to alter any of the items which appear in the various prompt tables.

For example, pull down Setup and select Prompts once more.

This time use the Pull Down option on the Select Table field and the screen should appear as below.

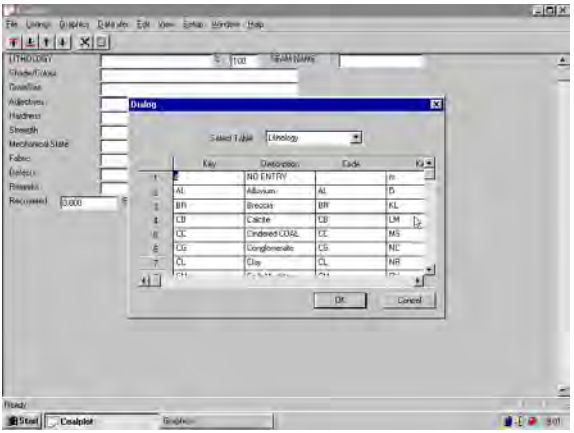
You will see that by moving the slider bar you have access to each of the available entry fields.



If you select the Lithology option, your screen will appear as below.

You can see that you have 3 columns which are;

- Key - the entry key you wish to use
- Description - the full description you wish the program to generate for the particular key.
- Code - the code you would like to use if or when you transfer your data to another program format.



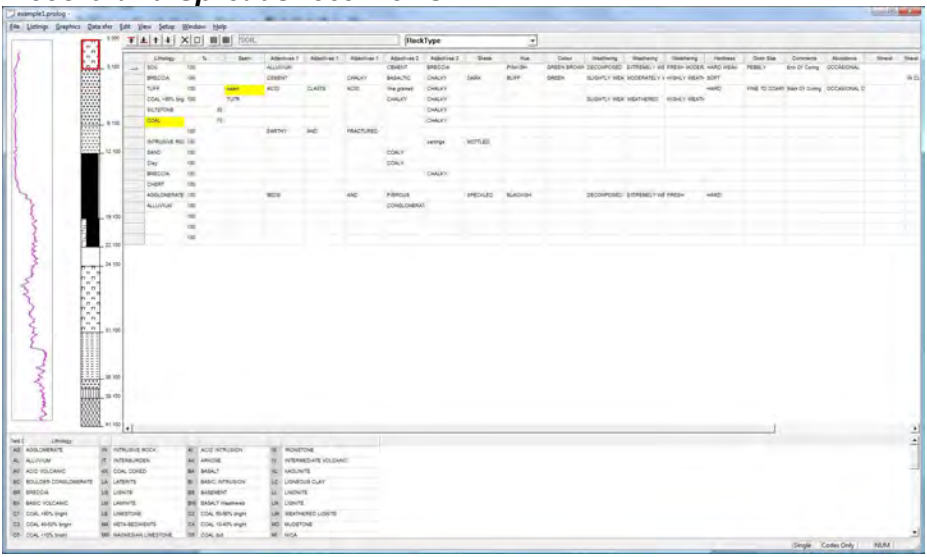
You may select any of the fields available by clicking inside it with the left mouse button. Once the field is selected, you can then type in anything you want, and what you type will replace what is already in the field.

If you wish to add totally new entries, use the slider bar to move down until you find blank fields and enter as you choose.

Another Way of Configuring Prompts:

You can also configure the prompts to use using excel or Open Office. From the File menu click on the "write csv template" option. Enter a file name such as mytemplate.csv (make sure you include the .csv) and the menu structure and all the data in the pop up menus is brought up in excel automatically. Modify this as appropriate and then select the "read csv template" from the File menu. The modified template will be brought in.

Record and Spreadsheet Views



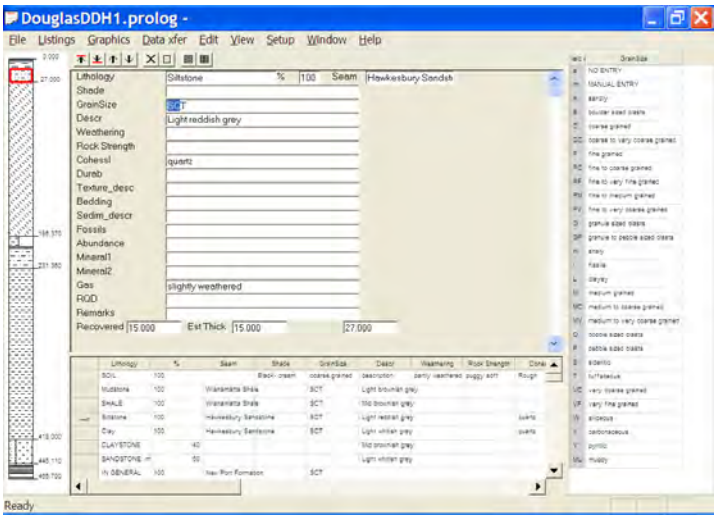
Prolog from version 4 onwards allows you to display the borehole data in either record mode, spreadsheet mode or if you have a large enough screen both. Record mode displays each individual entry separately. It's advantage is that you have plenty of space to display individual fields. All the pictures so far are displaying the data in record view.

Spreadsheet view displays the data as you would find if you logged using Excel. It's advantage is that you can display multiple log entries at once; but

the size of individual entries is obviously smaller. A spreadsheet screen shot is above:

In this example the spreadsheet extends past the right edge of the screen. You can use the slider bar to view right hand edge. If you have a large resolution wide screen the whole spreadsheet may be viewable. You can see the arrow to the left of the data which indicates the current active line. The pop up entries are displayed automatically along the bottom in spreadsheet view to maximise the data displayed.

Prolog can also display both views at the same time. This is particularly useful for checking data etc and if you have a large resolution screen



Clicking on an entry in the spreadsheet view automatically displays the entry in the record view. This is handy for finding and then editing entries.

To change between views there are two icon buttons. The record icon changes to record mode while the spreadsheet icon changes to spreadsheet mode. You can display both views by moving the splitter grab bar. When in record mode this is found at the bottom of the view. Move it up the screen. When in a spreadsheet view the splitter bar is found at the top of the view. Grab it and drag it down.

Data and Template Storage

Data for prolog4 is stored in a single file. This file contains the logged data as well as all the title information etc. The file also contains the field headings as well as all the input, output and pre-defined data entries.

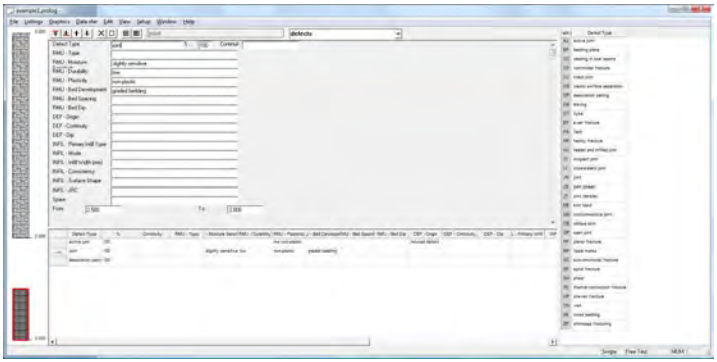
The new prolog file has a .prolog extension. Internally all the data is stored in an XML format and you can view the data in Internet Explorer. If you wish to edit the data externally to Prolog then we suggest that you download the free file XML Notepad from the Microsoft web site.

Storing the data templates with the data means that if you wish to share your data with a colleague; then all you need do is send them the one file. It will appear on there computer identically. It also means that you can have multiple templates and easily match your data to the appropriate template.

Prolog allows you to both read and save a Template into and out of a job. This is stored in a ".Template" file and is in an XML format.

Multiple Templates in Same Job

Version 4.1 allows you to store more than one type of data set with each hole. For example you can have lithology data stored as well as defects. There are no limits to the number of templates and the names of the different templates stored with the hole.
The menu items to create, rename and delete these additional templates are found under the setup menu. To change the template currently displayed; select the new data template from the drop down combo box found in the icon bar near the top of the screen. The picture below shows data stored in the defects template.



In this data template we have defined the entry depths as from and to. You will notice a gap in the graphics bar. There is no data defined at this depth.

Hatch Patterns in Prolog

Prolog uses hatch patterns compatible with autocad and other similar CAD programs. The patterns are defined in the file hatch and lives in the program directory. To edit or modify you can call notepad directly from the setup menu item.

Please be aware that if you are running vista or windows 7 that changes may be saved in a ghost copy of this file. The OS does not like programs modifying files under the “Program Files” directory. To circumvent this when editing the file run the editor with administrator rights. Ie right click on program and select run as administrator.

We have extended the definition a little to include solid fills. To fill first 50% put in a line of
fill 50
To fill first 20%,middle 20% and last 20% enter a line such as
fill 20,-20,20,-20,20

In addition to using the predefined hatch patterns that are supplied, you can design and create your own custom hatch patterns. Developing a hatch pattern definition requires knowledge, practice, and patience. Because customizing hatches requires familiarity with hatch patterns, it is not recommended for new users.

The hatch definition has a header line with a name, which begins with an asterisk and is no more than 31 characters long, and an optional description:

pattern-name, description

It also has one or more line descriptors of the following form:

angle, x-origin,y-origin, delta-x,delta-y,dash-1,dash-2,
…

An example is:

```
*ANSI31, ANSI Iron, Brick, Stone masonry

45, 0,0, 0,.125
```

The pattern name on the first line, *ANSI31, is followed by a description: ANSI Iron, Brick, Stone masonry. This simple pattern definition specifies a line drawn at an angle of 45 degrees, that the first line of the family of hatch lines is to pass through the drawing origin (0,0), and that the spacing between hatch lines of the family is to be 0.125 drawing units.

Hatch pattern definitions follow these rules:

- Each line in a pattern definition can contain up to 80 characters. You can include letters, numbers, and the special characters underline (_), hyphen (-), and dollar sign ($). However, you must begin a pattern definition with a letter or number, not a special character.
- Prolog ignores both blank lines and text to the right of a semicolon.
- Each pattern line is considered to be the first member of a line family, created by applying the delta offsets in both directions to generate an infinite family of parallel lines.
- The *delta-x* value indicates the displacement between members of the family in the direction of the line. It is used only for dashed lines.
- The *delta-y* value indicates the spacing between members of the family; that is, it is measured perpendicular to the lines.
- A line is considered to be of infinite length. A dash pattern is superimposed on the line.

We recommend creating new patterns by copy and modifying existing patterns.

A Simple Example

The example below shows data being entered into version4.1 of the software.

The intention of this example is purely to demonstrate the process you need to use to get the data in, and the graphic and english logs out the other end.

Once you are familiar with the process you can fill in as much detail as you think is warranted.

The following Table contains details of the material recovered from Borehole 1234 on Project Anyhole.

Material	Depth	Colour
Soil	1.0	
Clay	4.8	
Claystone	1.0	
Sandstone	4.7	
Siltstone	3.1	
Siltstone	5.7	
Siltstone	1.3	
Coal Weathered	0.65	
Coal - Dull banded	0.71	
Coal Dull	1.2	
Claystone	1.18	
Coal	1.25	
Siltstone	9.2	
Coal Dull & Bright	2.09	
Siltstone	0.27	
Coal Dull & Bright	3.2	

For the purposes of the exercise we have dispensed with many of the colours or other items you will strike in real life, but there is enough here to get a picture at the end of the process.

The first step in the process is to ensure that all of the most common Lithologies, colours, etc you intend to use are entered in the relevant table as described above.

Here you should look through the data table above and check the materials against the default table supplied.

For this example you should see that all the items are in the table.

However in real life, it is unlikely that you will be so fortunate, so now is the time to sit down with a pad and pencil and list down all the entries you are likely to use, and the unique codes you wish to use to signify each entry.

Then edit the table to suit, bearing in mind that if you miss a particular entry, you can always type it in manually.

Next, you should check that there is a hatch pattern available for each of the materials you have recovered.

To do this, you need to use Wordpad or NotePad or similar to open the file called 'hatch'. This can be done from the "Setup" menu – "Edit/View hatch in Notepad".

Look through each of the names and check off to make sure each of your intended entries is available.

Again, fortune will have smiled on you for the purposes of this example, but in real life now is the time to look through the chapter titled hatching (or the topic in the on line manual) to determine how you will define the pattern you need for materials not already in the file.

You can also copy and paste an existing hatch entry and change the heading. This is useful if an existing entry gives you the same output as the one you want.

Once all is in readiness you should Start ProLog.

Pull down the File Menu and select New.

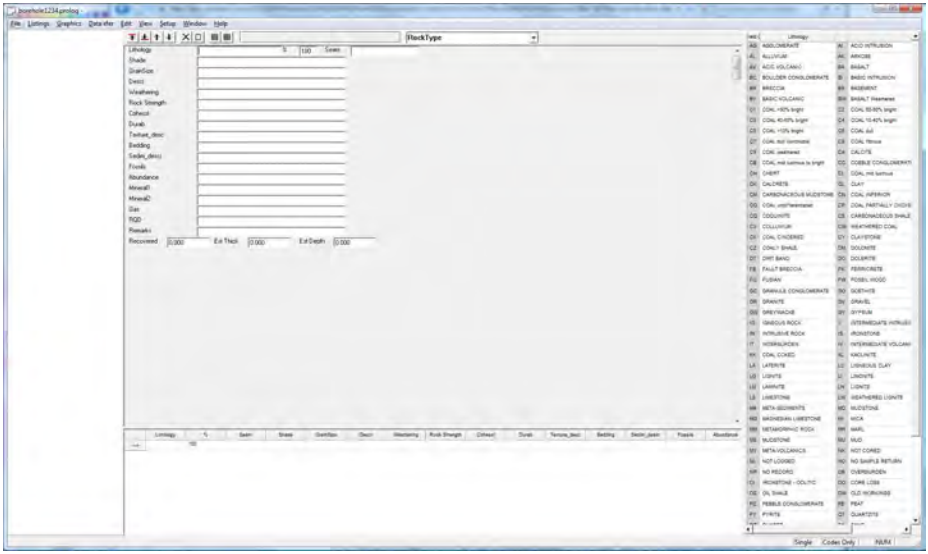
The program will offer to open a new file in the data folder. This is found under my documents/prolog4. You may accept this or create your own folder.

Use the icon of the folder with an arrow to go up one level, then select the folder named ‘examples’ displayed.

In the field titled ‘File Name’ type in “borehole1234.prolog” and then select Open. We recommend that you include the .prolog extension so that you know this is a prolog file.

The program will inform you that the file does not exist and ask for confirmation that it should be created so please humour it and select the Yes option.

You will now be presented with the following screen, or at least one similar to it, depending on how closely you followed earlier instructions for configuring prompts.



You may now need to change the template used. Ie the headings, pop up box's etc. From file menu click on the “read template”. There are some default templates supplied with Prolog. Select the traditional. If you select the spanish version; it shows the versatility of Prolog.

The cursor will be flashing in the field titled “Lithology”.

The entry you need is Soil, which you can enter by either typing in the code of ‘SO’ followed by Enter, or by using your mouse to select it from the table.

You may then enter colours or other items as the mood takes you, but the important thing is to position the cursor in the field titled Recovered.

Type in 1 then press Enter.

Press Enter twice more to accept the value of 1 being placed in Est Thickness and Est Depth.

The cursor will now appear back in the Lithology field redy for the next entry which is Clay.

Either pick with the mouse from the table, or type in CL followed by Enter.

Enter a value of 4.8 for recovered and press Enter until the cursor return to the Lithology field.
Now Enter 1 metre of Claystone followed by 4.7 metres of Sandstone.

Once you have finished the Sandstone entry, you will be prompted for another lithology, but before you press on, lets have a look at progress to date.

If you are using a sufficiently large screen and screen resolution, you may see the small column titled “Graphics” as you progress.

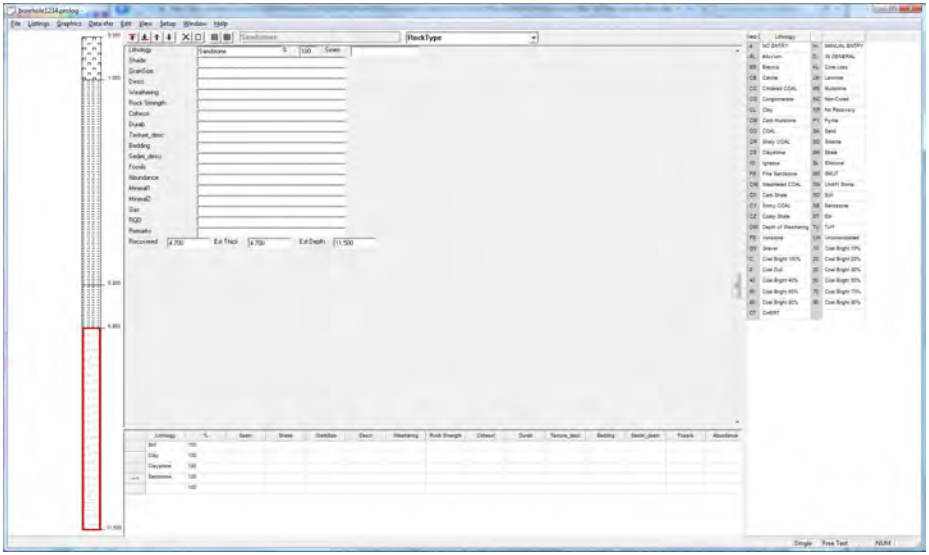
If, however you are using the typical Notebook at around 800x600 this will be obscured by the Lithology Table.

If you move the cursor to the Colour Field, you will see a blanked out Graphic.

Select the Icon showing the arrow pointing upwards to indicate you wish to view the previous entry.

The screen will now appear as below.

If, as we have suggested, you have restricted the number of entry fields on display, you might like to drag the “graphic” window down to the vacant area at the lower left of screen as below.



Enough of the pretty pictures; and back to the grind.

You need to work your way through the table adding in each of the entries until you have finished.

If you wish, you may then use the Icons with the arrows pointing up and down to move up an down through your entries.

You will see on the “Graphic” window that the current entry is outlined in red to indicate where you are.

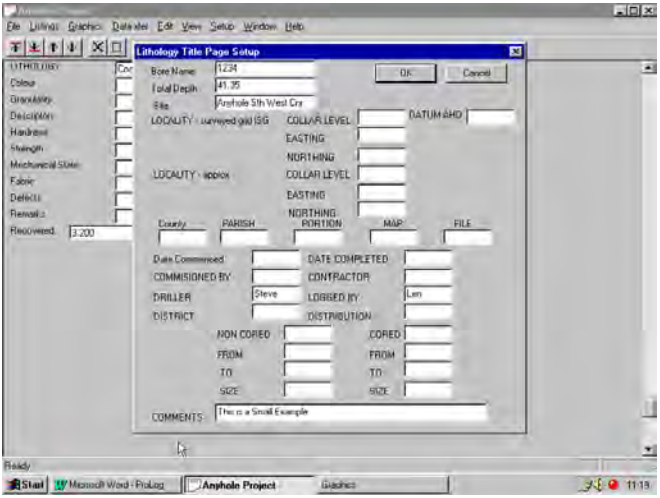
We would also point out that while this example only has 14 entries, you should get into the habit of Saving periodically as you work.

You can decide for yourself how much you are prepared to lose if the power goes out, but probably a Save after every 15 or 20 entries is probably a good insurance policy.

Listings

Pull down the listings menu
Title page.

If you select the Title Page Option you will see a screen similar to that below.



These values are descriptive only and you can fill in as many or as few as you wish.

Once done you should again pull down the Listings menu and Select the Option Create Listing.

The Listing will appear in Wordpad.

Please note that depending on your individual Printer and computer setup, you might need to change the orientation of the paper from Portrait to Landscape before you can see this Listing correctly.

Graphics

Prolog has the facilities to create graphic plots. There are facilities to view and print the graphic log directly to your windows printer. There is also an option to create an Autocad compatible file that can be read into most popular CAD packages such as ACAD or Intellicad.

From the graphics menu first select the Lithology Plotting setup. Fill in the appropriate fields. There are up to 30 possible columns. To access the next group of 5 please use the Next page button. The previous page button goes back a page. Each column has one of three possible states. Either a graphic log can be plotted ; a geophysical log (LAS file) can be plotted or it can be left empty. The paper size that you select depends upon the current windows printer set up. If there is no windows printer set; it is suggested that a generic printer driver is loaded into the windows operating system.

Once the graphic parameters have been set it is time to create your graphic log. To print or preview the log select print or preview from the File menu. To create a acad drawing select “create acad file” from the Graphics menu. If you have a CAD program already installed on your system then “create acad file” is suggested. This will create a dwg file with the data in it as defined in the plot setup. Also the default program associated with the dwg file is run. Thus if you had ACAD installed on your system; the plot file will then be displayed by it. You can now view and plot the file or edit it as you desire.

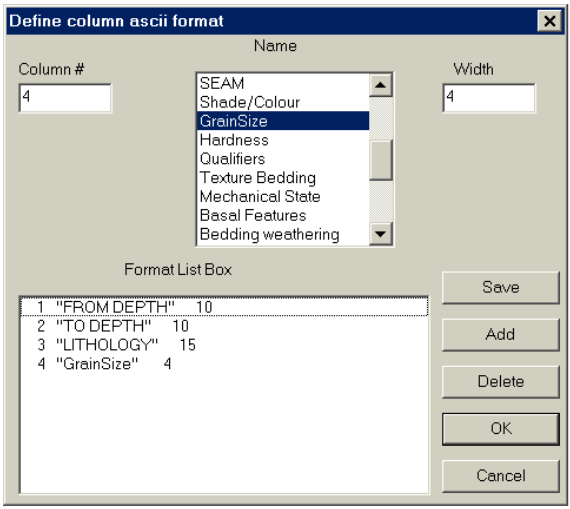
If you don’t have a CAD package then do a print from the File menu.

Data Transfer

The majority of Prolog users upload there borehole data to there desktop or mainframe based modelling package. Click on the data transfer menu and you will see the supported formats. There are a number of pre-defined formats available. It should be noted that many of these modelling packages have user definable inputs; which means that an existing format may be already usable for your data entry requirements. If you need a custom format

written please contact the staff at Foresoft. This may or may not be able to be done as part of the initial purchase price.

It is also possible that your output format may be able to be created by the Ascii Columns format. In this instance you can define the order and column numbers for the data which is put out. To do this select the “data xfer” menu item and then the “Ascii column” entry. Enter the “format” entry item. In this dialog you can define which fields are to be displayed in which order starting at which column number.



Once you have finished your definition make sure that you save the file name of the format file. Running the create menu will now form the ascii dump. Please note that the file name asked for is the format file name.
It is worth mentioning that the variable ascii format can be used to enter data into an Access database. From Access use the links to the import section.

This is the end of the simple example.

We hope it gets you started and will be happy to answer any questions if you wish to direct them to prolog@foresoft.com.

Further help can also be obtained from the on-line manual.