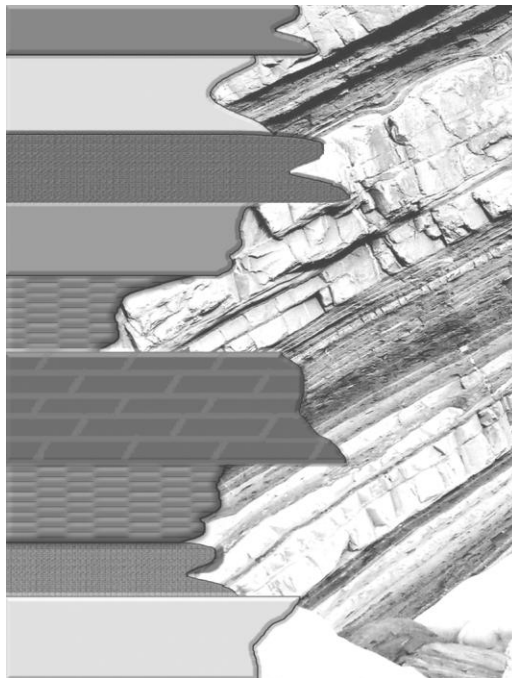


Strater®

Quick Start Guide

Well Log and Borehole Plotting for Geoscientists



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Introduction to Strater

Strater is a well log and borehole plotting software application. There are 12 log types available in **Strater**: line/symbol, crossplot, depth, zone bar, bar, percentage, post, classed post, complex text, graphic, lithology and well construction logs. Each of the logs can be modified to suit your needs.

Data

Data can be imported from many sources, including ASCII text files, Excel spreadsheets, LAS files, and just about any database. **Strater's** internal database can contain multiple tables, and data for multiple boreholes can be stored in the data tables at one time in a single project file.

Multiple Boreholes or Multiple Views

Strater allows you to display multiple boreholes in a single borehole view, and create multiple borehole views in a single project. You can specify a different borehole for each log in a borehole view with a few mouse clicks.

Reuse, Reuse, Reuse

Once you design a borehole view, you can use the design repeatedly with other data. There are several features in **Strater** designed to save time with borehole graphic processing. After creating an initial design, you can take advantage of:

- Templates
- Schemes

Templates store the design elements of a project, including log items, header and footer items, data tables and schemes.

Schemes contain detailed information of how the data relate to drawing properties. For example, a lithology log uses lithology schemes, which contain keywords, such as granite, clay, etc. Each of these keywords is assigned a fill pattern, contact line properties, line properties, and text properties. Schemes can be reused; therefore, you do not have to go through the process of assigning properties each time you create a log.

Strater Projects

A project file consists of all borehole views, data tables, and optional schemes, and is saved in a single .sdg file. When Strater first opens you see a blank, unnamed project to which you can add all the components necessary to create the borehole design. Once the borehole design is complete, use **File | Save** to save it to an .sdg project file.

System Requirements

The minimum system requirements for **Strater** are:

- Microsoft Windows® XP, Vista, 7, or higher.
- 1024 x 768 or higher monitor resolution with 16-bit (or higher) color depth.
- At least 100 MB of additional free hard disk space.
- At least 512 MB RAM above the Windows requirement for simple data sets.

Installation Directions

You need to have administrator rights to install and run **Strater**. To install **Strater** from a CD:

1. Insert the **Strater** CD into the CD-ROM drive. The install program automatically begins on most computers. If the installation does not begin automatically, locate the SETUP.EXE file on the **Strater** CD and then double-click the SETUP.EXE.
2. Select *Install Strater* from the **Strater Auto Setup** dialog to begin the installation.

To install **Strater** from a download:

1. Download **Strater** according to the directions you received.
2. Double-click the downloaded file to begin the installation process.

Updating Strater

To update **Strater**, open the program and select **Help | Check for Update**. This launches the Internet Update program which will check Golden Software's servers for any updates. If there is an update for your version of **Strater** you will be prompted to download the update.

When **Strater** is initially launched, you will be prompted to allow the program to automatically check for updates. It is highly recommended that you select *Yes*. You can turn this update option on, off, or adjust the update interval by selecting **Tools | Options**. The update options are available by clicking the *Update* page on the left side of the dialog.

Uninstalling Strater

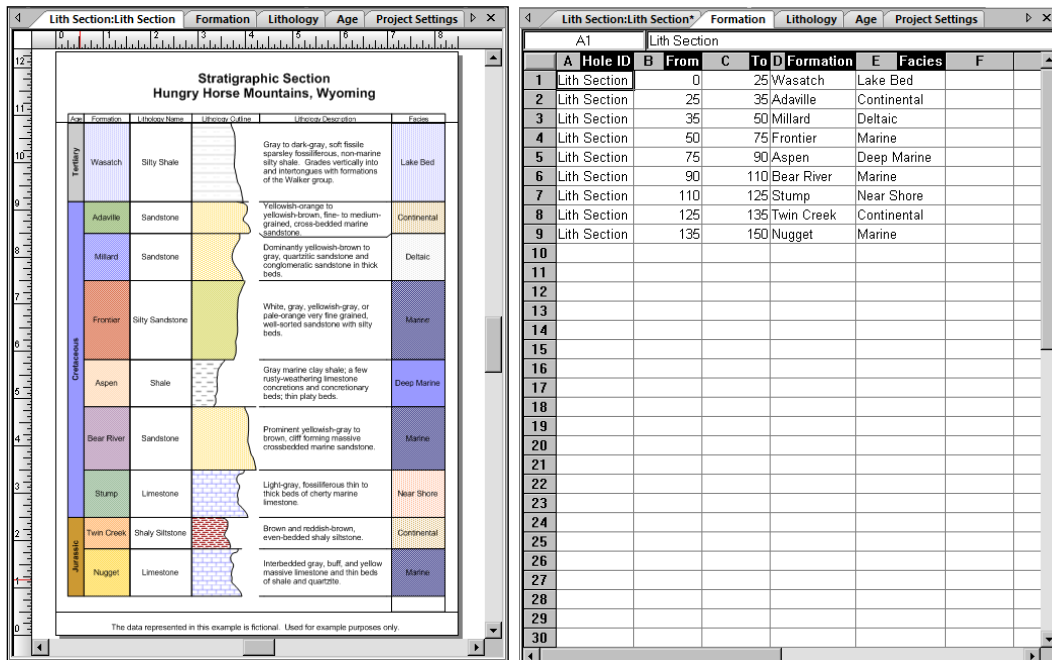
Windows XP: To uninstall **Strater**, go to the Windows Control Panel and double-click *Add/Remove Programs*. Select **Strater 2** from the list of installed applications. Click *Remove* to uninstall **Strater**.

Windows Vista: To uninstall **Strater** when using the *Classic View*, go to the Windows Control Panel and double-click Programs and Features. Select **Strater** from the list of installed applications. Click *Uninstall* to uninstall **Strater**.

Windows Vista and 7: To uninstall **Strater** when using the *Regular Control Panel Home*, go to the Windows Control Panel and click *Uninstall a program*. Select **Strater 2** from the list of installed applications. Click *Uninstall* to uninstall **Strater**.

Borehole View and Data Tables

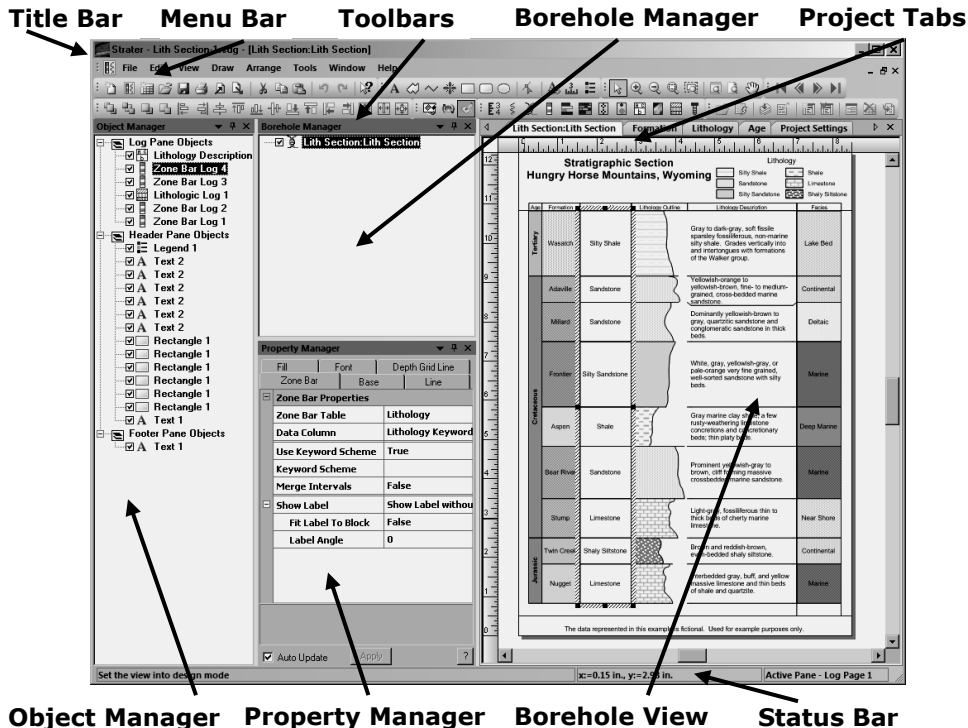
The primary graphical component to a document is a borehole view. A borehole view is either based on a template file or created from scratch by adding the necessary log, header and footer items. Boreholes views are visible in the workspace when a borehole view tab is selected. When a data table tab is selected its data appears in the workspace, as shown below.



The workspace displays either the borehole view (on the left) or the contents of the data tables loaded into the current project (on the right). Switch between the two views by selecting the appropriate tab.

The Strater Interface

The **Strater** user interface is divided into four primary sections plus the Windows standard menus and toolbars.



Object Manager Property Manager Borehole View Status Bar

- The **Object Manager** lists all drawing objects and logs that are in the currently visible borehole view.
- The **Borehole Manager** lists all borehole views that are currently part of the **Strater** project.
- The **Property Manager** displays all attributes of the currently selected object in the borehole view. If no object is selected, the general attributes of the borehole view are listed.
- The **Project Tabs** consist of borehole view tabs and data table tabs. *Borehole view* tabs open a borehole view. *Table* tabs open data tables, which store the data that populate logs and supporting objects.

Data, Schemes, and Log Properties

Project data, schemes, and log properties are all related in the process of creating a borehole log:

Borehole 1:-Multi-		Depth	
E11			
	Hole ID	Depth	C Au
8	DH-1	16	1
9	DH-1	18	24
10	DH-1	20	19
11	DH-1	22	310
12	DH-1	24	492
13	DH-1	26	132
14	DH-1	28	80
15	DH-1	30	18

1 The data in Row 12 (Depth=24, Au=492) of the Depth data table lies within one of the data ranges in the Au Concentration scheme visible in the **Scheme Editor**.

2 A bar log was created and the Au Concentration scheme in the **Scheme Editor** was selected in the **Bar Log** tab of the **Property Manager**.

The screenshot shows a multi-panel software interface. At the top left is a data table (Borehole 1:-Multi- Depth) with columns for Hole ID, Depth, and Au concentration. Below it is a tree view of the 'Au Concentration' scheme with five numerical ranges. To the right is the 'Range Properties' dialog box, showing 'Lower Range Value' as 401.5 and 'Upper Range Value' as 501.875, with 'Fill Properties' set to 'Solid' and 'Light Orange'. Below that is the 'Property Manager' dialog box, with the 'Bar Log' tab selected, showing 'Bar Log Table' as 'Depth', 'Data Column' as 'Au', 'Use Range Scheme' as 'True', and 'Range Scheme' as 'Au Concentration'. On the far right is a bar log plot with depth on the y-axis (0.00 to 48.00) and Au concentration on the x-axis (0.00 to 600.00). A bar at depth 24 is highlighted in light orange. Three numbered callouts (1, 2, 3) with arrows point from the text blocks to the corresponding elements in the interface.

3 The scheme selected in the **Property Manager** determines the appearance of the log in the borehole view. The color of the bar at depth=24 is Light Orange, which is the color for this range in the **Scheme Editor**.

The data contain depth information (either depth or interval), borehole names, and the data to be displayed on the log. Schemes contain property information that is linked to data and is based on ranges or keywords. When scheme information is found in the data, the graphical borehole log displays the properties of the scheme. The **Property Manager** determines which data table and field are used to create the log, the scheme to use (if any), and properties such as the color and location.

Five-Minute Tour

Included in your installation are several sample files so you can quickly see some of **Strater's** capabilities.

Sample Strater Files

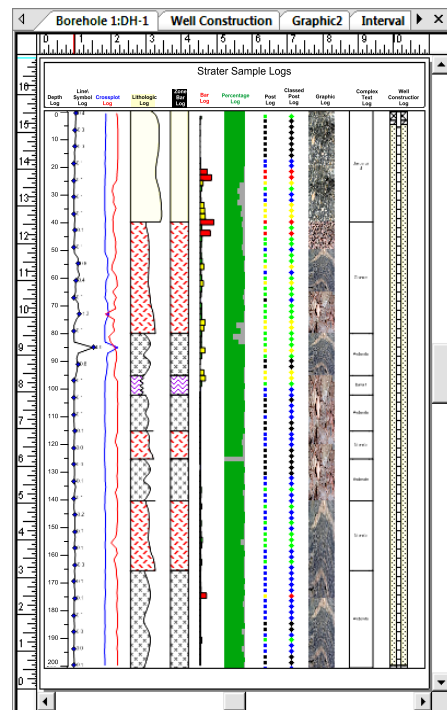
To see the sample **Strater** files:

1. Open **Strater**.
2. Select **File | Open** and navigate to the default installation folder, which is by default `C:\Program Files\Golden Software\Strater 2\Samples`.
3. Double-click a file with the `.sdg` extension.

Example Logs.SDG

Open the sample file Example Logs.sdg. This example file contains every type of log file that **Strater** generates. As you highlight a log, notice how the contents of the **Property Manager** change, including the tabs themselves. Each log type has its own set of properties. You can have several logs of the same type in the same borehole view, each with its own unique property settings, and each representing a different borehole if desired.

One purpose of the sample files is to discover the effects of changes made in the **Property Manager** – to experiment so that the functionality is closer to second nature and you do not need to laboriously hunt for the correct setting. Use these sample files, especially this file, to discover the breadth of options available. If you want to save any changes we recommend keeping the original file and using the **File | Save As** option to save the file to a new name.







The Example Logs.SDG file displays an example of each log type in the same borehole view.

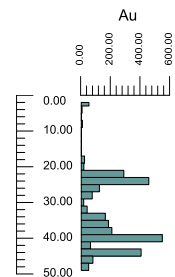
Using Strater

The general steps for creating a borehole design are:

1. Open a new, empty **Strater** project.
2. Select a log type and its location in the borehole view.
3. Load data into a **Strater** project.
4. Use the **Property Manager** to associate the log with the data and specify the properties of the log.
5. Either repeat the above action to add more logs, or modify the new log with objects, legends, and scale bars.

One of the most common tasks in **Strater** is to create a log, add a depth scale, and modify the appearance of the log. The following will show you the steps to do this.

1. Open **Strater**. When you do so, a new blank project is automatically generated.
2. We will add a bar log to this project. Click  or select **Tools | Log Items | Bar**.
3. Click the mouse button in the middle of the log pane, in the center of the borehole view, to determine the location where the bar is displayed. The **Open** dialog appears, where you select the source data file used by the log. Navigate to the Samples folder in the **Strater** installation directory.
4. Select **Tutorial 1.XLS** as the data file and click **Open**.
5. In the **XLS Import Options** dialog, select *Depth* as the data sheet to import and click **OK**.
6. The **Specify Worksheet Column Definitions** dialog opens, where you set up the columns and rows in the imported file. The defaults are OK, so click **Next**.
7. The **Specify Data Type and Column Positions** dialog opens, where you specify which columns are the sources for the required information in the log. The defaults are fine for now. Click **Load**. A bar log is generated. It automatically includes a scale bar at the top.
8. Many users add a depth scale to a borehole view. Click  or select **Tools | Log Items | Depth** and click inside the borehole view, to the left of the bar log.
9. **Strater** arbitrarily selects colors to fill many logs. A single color for every bar is not visually compelling so we will add additional colors by creating a scheme.
10. Click  or select **Tools | Scheme Editor** to open the **Scheme Editor**.
11. Click  at the bottom of the editor to create a new scheme.
12. In the **New Scheme** dialog click *Base Scheme on Column Data*. This option creates a scheme whose contents are derived from data already in a data table.



Bar logs are simple to create.

13. Select *Depth* as the *Table Name*.
14. Select *Au* as the *Column Name*, because this is the column whose data is represented in the log.
15. The name of this scheme doesn't matter at this point, so keep the default *Scheme Name*.
16. Because **Strater** automatically determines valid schemes for each data column and log type, the only *Scheme Type* available is *Range*.
17. You can select the number of intervals in the scheme in the *Interval Count* field. For this exercise change the number to 8.

New Scheme [?] [X]

Create a New Strater Scheme.

Default Scheme

Base Scheme on Column Data

Table Name:

Column Name:

Scheme Name:

Scheme Type:

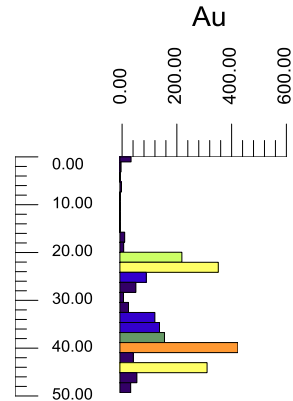
Interval Count:

OK Cancel

*It takes less than one minute to create a scheme in **Strater**.*

18. Click **OK**. The name of the new scheme appears in the **Scheme Editor**.
19. Click **OK** in the **Scheme Editor**.
20. Select the bar log in the borehole view.
21. In the **Property Manager** select the **Bar Log** tab.
22. Select *True* in the *Use Range Scheme* field to allow this log to use a scheme.

23. Select *Custom Scheme* in the *Range Scheme* field (which is the default name of the scheme you created). The log now shows colors for each interval in the log.
24. You can change each interval color by opening the **Scheme Editor**, double-clicking the name of the scheme, highlighting each item you wish to edit, and changing the properties for that item on the right side of the **Scheme Editor**. Click **OK** or **Apply** to see the changes.
25. To see the relationship among data, schemes, and logs see the diagram on page 3.



You can easily modify a bar log's properties, including colors, using schemes.

You have created a log, added a depth log, and customized the appearance of the log with a new scheme. These are the basics of working in **Strater**, and these skills are used throughout the software.


Working with Borehole Views

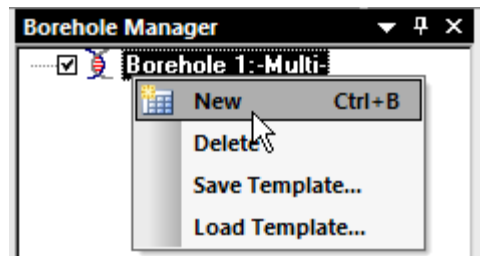
When **Strater** opens, an empty, unnamed borehole view is open in the workspace.

Add Borehole Views

You can add multiple borehole views within a single project.

To add a new borehole view:

- Select **File | New | Borehole View**.
- Click the  icon.
- Right-click in the **Borehole Manager** and select **New**.

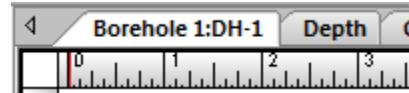


Right-click in the **Borehole Manager** and select **New** to add a new borehole view.

To rename the new view, select **View | Borehole View Properties** to open the **Borehole View Properties**. In the **Property Manager**, on the **Borehole View** tab, click the *View Name* field and enter the desired name.

Opening an Existing Borehole View

An existing borehole view is opened by clicking its tab at the top of the workspace. By default, the first borehole view in a project is named **Borehole 1**. You can also select **Window | Borehole 1** to open the borehole view.



*Click the borehole view tab at the top of the **Strater** window to open a borehole view.*

To open a closed borehole view, double-click the name of the borehole view in the **Borehole Manager**.

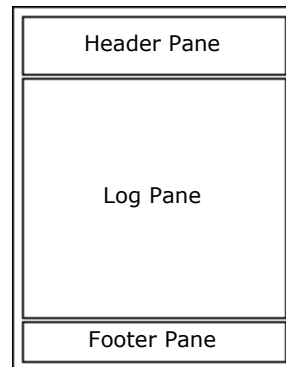
Closing a Borehole View

To close a borehole view, right-click on the borehole tab and select *Close*, or uncheck the check box to the left of the borehole view name in the **Borehole Manager**. The borehole view closes. This does not delete the borehole view from the project; it only removes the tab from the project tab array. If the borehole view you closed is the only borehole view tab in the project, then closing the tab will close the project. You may be prompted to save the project.

Panes

There are three main components of a borehole view: the log pane, header pane, and footer pane. The panes are outlined when you open up a blank view. You can change the pane line properties in the **Borehole View Properties** and the size of the panes in **File | Page Setup**.

The header and footer panes generally contain static, unlinked information. The header and footer items are used repeatedly with minimal changes when different borehole data are applied to the view. Two objects are exceptions to the static, unlinked information "rule": linked text and scale bars. Linked text changes as new data are applied to the view. Horizontal scale bars can be associated with some log items or they can be created as a stand-alone, static object. When the scale bar is linked to a log item, the scale bar changes as changes are made to the log item to which it is linked.



The top rectangle is the header pane, the middle rectangle is the log pane, and the bottom rectangle is the footer pane.

The information displayed in the log pane is usually dependent on linked data tables and columns. The log pane is also dependent on depth and scaling values. These values determine the size of the pane rectangle and/or the number of pages.

Borehole View Properties

The **Borehole View Properties**, displayed in the **Property Manager**, contain the basic settings for the borehole view, including the borehole ID, borehole data range, scaling, units, display mode, and the associated template name. You can view these different sections in tab format or as a series of horizontal bars. This illustration uses the tab format. To switch between tab and bar format, right-click in the **Property Manager** and check or uncheck *Display tabs*.


Opening Borehole View Properties

With a borehole view tab active, select **View | Borehole View Properties** or deselect all items (click outside of any object in the borehole view) to open **Borehole View Properties** in the **Property Manager**.

View Mode

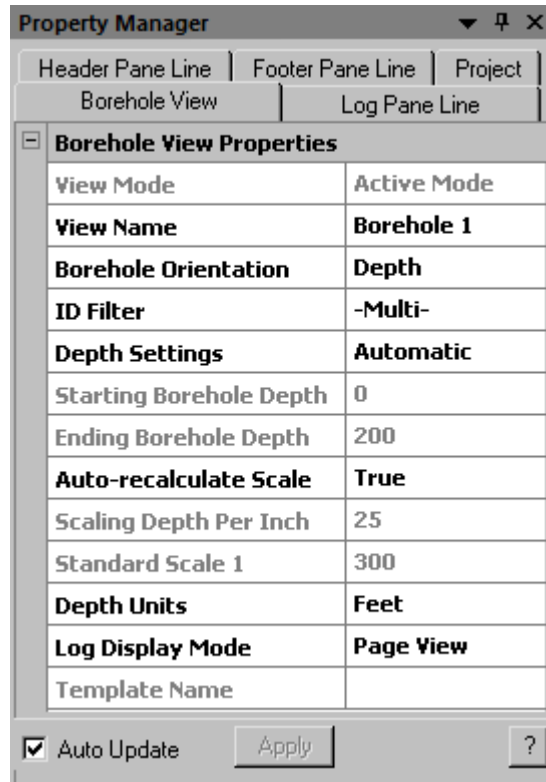
There are two view "modes" in the borehole view, *design* mode and *active* mode. Design mode is used to create graphics without attaching them to data. It is useful when designing templates.

When the program is in active mode the graphics are linked to data as they are created. It is more common for users to work in active mode.

The *View Mode* field displays the currently enabled mode. To switch modes either click  or select **Tools | Design Mode**.

View Name

You can edit the name of the current borehole view in the *View Name* field.



The **Borehole View Properties** are displayed in the **Property Manager** and control basic settings for the borehole view.

Borehole Orientation

Set the borehole orientation to *Depth* when the *Starting Borehole Depth* is less than the *Ending Borehole Depth*. Set the borehole orientation to *Elevation* when the *Starting Borehole Depth* is greater than the *Ending Borehole Depth*.

ID Filter

The *ID Filter* field displays a specific Hole ID when every log in the borehole view is based on the same Hole ID. If there is more than one Hole ID in the data tables, you can change the Hole ID by clicking in the field and selecting the desired Hole ID from the drop-down list. If the logs in the borehole view are based on data from more than one borehole the *ID Filter* field displays *-Multi-*.

Depth Settings

The *Depth Settings* option controls the starting and ending borehole depths. By default, the *Depth Settings* option is set to *Automatic*. When the *Depth Settings* option is *Automatic*, **Strater** scans the data tables to determine the starting and ending depths that fit the data. When set to *Collars Table*, the starting and ending borehole depths are retrieved from a collars table. When the *Depth Settings* option is *User Defined*, you can manually enter the *Starting Borehole Depth* and *Ending Borehole Depth*.

Auto-recalculate Scale


Select *False* to manually adjust the *Scaling Depth per [cm/inch]* and *Standard Scale 1* fields. Select *True* (the default) to have the scale automatically calculated.

Depth Units

Select the borehole unit type from the *Depth Units* list. These are the units of the depth data in the data tables.

Log Display Mode

The *Log Display Mode* shows the current borehole in either *Page View* or *Full View*. *Page View* shows the header and footer on each page and creates the size of the panes based upon the **File | Page Setup** settings. If the *Log Display Mode* is set to

Page View, you can use **View | Page** or click the  buttons to move among the pages. *Full View* shows the header and footer but expands the log pane to show the whole length of the log with no page breaks.

Template Name

The *Template Name* shows the template associated with the borehole view, if any. This is read-only.

Log, Header, and Footer Pane Line Properties

You can edit the log, header, and footer pane line properties in the **Log Pane Line**, **Header Pane Line**, and **Footer Pane Line** tabs.

Project Properties

The **Project** tab contains a *NULL Value* option, which is a number treated as missing data. This option allows you to store a null value with the **Strater**.sdg file, and this value can be different from the null value set in **Tools | Options**. This *NULL Value* setting overrides the *Null Data Value* in **Tools | Options** on the *General* page.

Schemes

Schemes provide a mechanism to define various drawing properties, such as fill properties, that are matched to the data table information. For example, you may have the word "Granite" in a lithology keyword field. You can create a scheme containing a fill pattern, line pattern, contact line pattern, and keyword label text properties for granite. When the scheme is assigned to a lithology log, for example, every time the word "Granite" is used in the data table column, **Strater** uses the properties assigned in the scheme in the graphical borehole display.



Scheme Requirements

Some log items are dependent on schemes for display; for example, lithology and well construction logs require schemes. Other logs, such as bar logs, can optionally use schemes. The scheme keywords are case-sensitive, so it is advisable to have **Strater** automatically create the schemes using column data in the **New Scheme** dialog.

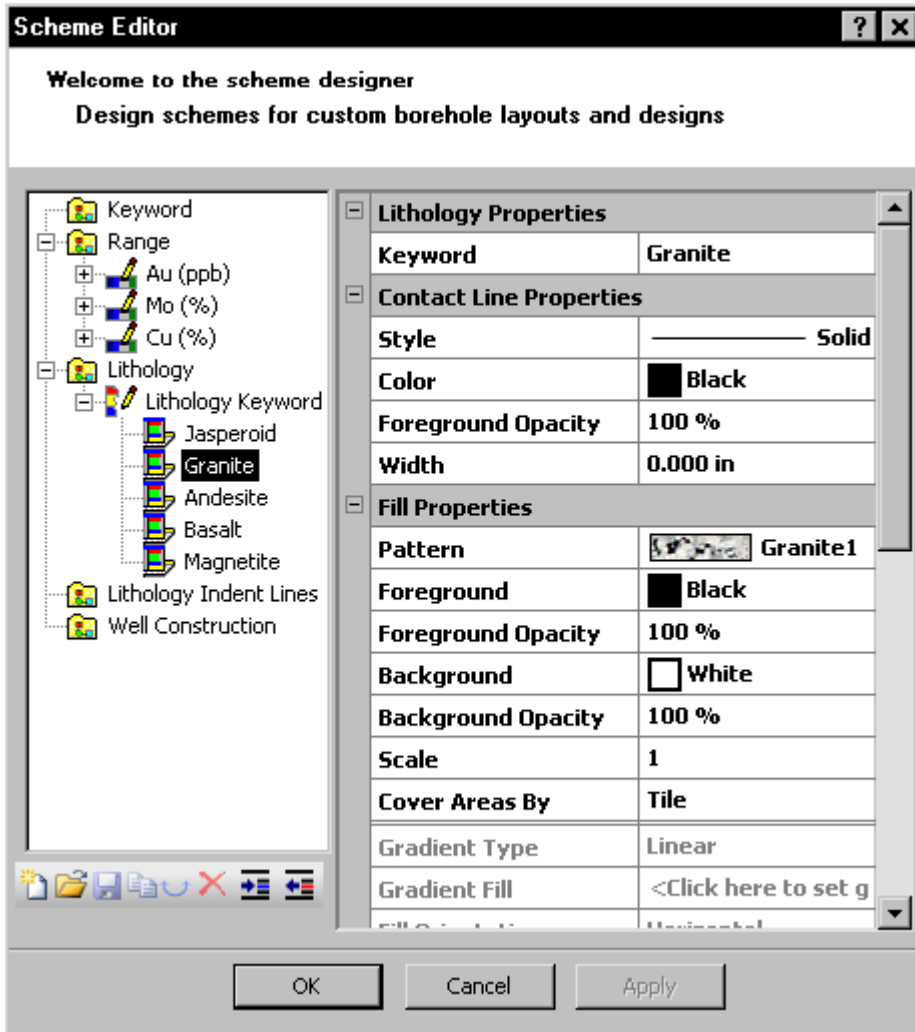
Data and Schemes

Since schemes are tied to the data, be sure to understand the log data requirements and column requirements for the associated schemes. For example, to use schemes with lithology logs, you must have specific keywords defined in specific columns.

Scheme Contents

The **Scheme Editor** dialog contains a list of the scheme types on the left, each of which is indicated by the  icon. If a scheme is included in this project there is a plus symbol  next to the scheme type.

Click a plus symbol to view the scheme names. If there is a plus symbol next to the scheme name, items are defined in the scheme. Click each item and define the properties for each item on the right.





Use the menu on the left to expand each scheme. In this example, the Lithology Keyword scheme is expanded, and the item Granite is highlighted. The properties of the highlighted item appear on the right, where they can be edited.

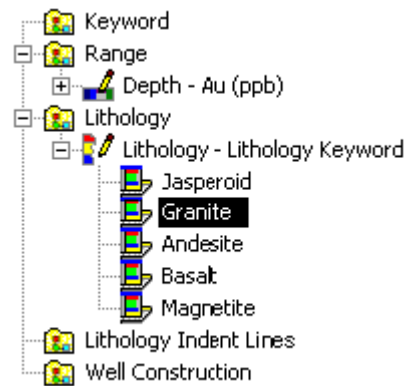
Scheme Types

There are five main scheme types: keyword, range, lithology, lithology indent lines, and well construction. The properties for each scheme item vary depending on the scheme type. Refer to the online help file for more details on each scheme type.

Opening the Scheme Editor


With a borehole view active, select **Tools | Scheme Editor**. In the **Property Manager**, click  to open the **Scheme Editor**, which is available in properties that request schemes. You can also click  to open the **Scheme Editor**.

In the image to the right, note that *Keyword*, *Range*, *Lithology*, *Lithology Indent Lines*, and *Well Construction* are scheme types. There are no *Keyword*, *Lithology Indent Lines*, or *Well Construction* schemes defined in this example. The *Lithology* scheme type contains one scheme, *Lithology - Lithology Keyword*. There are five items in the *Lithology* scheme: *Jasperoid*, *Granite*, *Andesite*, *Basalt*, and *Magnetite*. *Granite* is selected so the fill properties, contact line style, line properties, and text properties can be defined for this item in the right section of the **Scheme Editor**.




*Scheme properties, such as fill patterns, are set in the **Scheme Editor** dialog.*


Creating New Schemes

To create a new scheme, click  at the bottom of the **Scheme Editor**. The **New Scheme** dialog opens, where you define the scheme's properties such as the type of scheme and the number of scheme items.


Opening Existing Schemes

Click  at the bottom of the scheme editor to open a **Strater** Scheme File.


Saving Schemes

If you would like to reuse schemes with other projects, or to share schemes with colleagues, save the scheme by clicking the  icon. The scheme is saved as a **Strater** Scheme File (.sch).


Copying Schemes

You can copy a scheme by selecting a scheme name and clicking . A duplicate of the scheme appears in the scheme type list. You can edit the copy of the scheme, including the scheme name and scheme item properties. If *copy* is disabled, you have not selected a scheme name.


Converting Schemes

Click  to convert a lithology scheme to a keyword scheme and vice-versa. This option is active only when a lithology or keyword scheme is selected. This is useful if you wish to reuse schemes for different log types without the necessity of recreating complex schemes.

Deleting Schemes

You can delete a scheme by clicking a scheme name and clicking . If the delete option is disabled, you have not selected a scheme name.

Insert and Delete Items

Select an item within a scheme and click  to delete it. Insert a new item by clicking  when an item is selected. If the options are disabled, you have not selected a scheme item.

Updating Schemes

If you have made a change to a scheme after it has been applied to a log, you can click **Apply** to show the changes in the borehole view.


Templates

Once a borehole is designed you can reuse the design by saving it as a template. Templates allow you to create, save, and load borehole designs to be reused in other projects or by other **Strater** users. Template files store the borehole views, the data tables, and the schemes, but without any actual data in the data tables. Template files (.tsf) are stand-alone files from the main project files (.sdg).

Creating Templates

Templates can be created by either opening an existing project and saving it as a template, or starting with an empty borehole view, creating the borehole design and saving it as a template.

You can open a new, empty borehole view by:

- Selecting **File | New | Borehole View**.
- Clicking the  icon.
- Right-clicking in the **Borehole Manager** and selecting *New*.

When the borehole view opens, design the borehole by adding objects to the header, log, and footer panes. If you do not have data for the logs, you can design the borehole view in design mode.

Saving Templates

You can save templates from either the active or design modes. A saved template is stored in the exact format in which it was saved. Once the borehole is designed either:

- Select **File | Save As** to save a template file (.tsf).
- In the **Borehole Manager** right-click and select **Save Template**; save it as a .tsf file.

Loading Templates

To load an existing template file click **File | Open** or right-click in the **Borehole Manager** and select **Load Template**. Templates are loaded into a new borehole view and the data tables are automatically created. When the template is loaded you can import data into the data tables, edit log item properties to reflect the data, and create additional objects if necessary.

Once a template has been loaded into a borehole view the appearance of the borehole view remains unchanged if the original source template is changed elsewhere. In order to use any changes made to the original template you must open that template into a new borehole view.

Only one template can be used in each borehole view. However, you can open multiple templates into multiple borehole views and save them all in a single project file.

Template Information

If there is a template associated with a borehole view it is listed in **Borehole View Properties**. If the *Template Name* field is blank a template is not used for this borehole view.

Data Tables

The data tables are the source for the information used to create objects and logs in a borehole view. You can base different logs on the same data table and modify the appearance of each log individually without changing the data table itself.

Table Types

There are four main data table types in **Strater**: collars, text, depth, and interval. There are also some specialized tables based on the four main table types: lithology, project settings, and well construction.

Collars Table

Collars tables contain location information for each borehole. The default column definitions include Hole ID, Starting Depth, Ending Depth, Elevation, Easting, Northing, and Scale. The data in this table is usually used for header and footer linked text. It can also be used to set the scaling parameters for the borehole view, or specify the elevation of the well collar for depth logs.

Text Table

Text tables are blank tables designed to store attributes for the particular borehole; for example, drilling date, temperature, geologist, location, etc. Any type of data can be imported into this table. If there is a Hole ID defined in the table, the data can be used for header and footer linked text.

Depth Table

Depth tables are used for depth and variable information. The depth information is contained in one column. Depth tables are used for bar, classed post, crossplot, line/symbol, percentage, and post logs.

Interval Table

Interval tables are used to show a variable that occurs over a distance interval. There are two depth columns (*From* and *To*) in interval tables. Interval tables are used for bar, classed post, complex text, crossplot, graphic, lithology, line/symbol, percentage, post, well construction, and zone bar logs.

Lithology Table

Lithology tables are a special type of interval table. These tables define the properties of lithology logs using schemes. Lithology tables are also used with complex text, graphic, and zone bars logs. When creating a lithology log in active mode, a lithology table is created. The default column definitions include Hole ID, From, To, Lithology Keyword, Lithology Description, Indent Percentage, Indent Keyword, and Indent Scale.

The following is an example of a lithology data table that contains the log properties columns and their associated data.

Hole ID	From	To	Lithology Keyword	Lithology Description	Indent Percentage	Indent Keyword	Indent Scale
Lith Section	0	25	Silty Shale	Gray to dark-gray, si...	65	Wasatch	35
Lith Section	25	35	Sandstone	Yellowish-orange y...	72	Adaville	40
Lith Section	35	50	Sandstone	White, gray, yellowi...	68	Hilliard	33
Lith Section	50	75	Silty Sandstone	Dominantly yellowis...	75	Frontier	33
Lith Section	75	90	Shale	Gray marine clay sh,...	45	Aspen	33
Lith Section	90	110	Sandstone	Prominent yellowish	85	Bear River	33
Lith Section	110	125	Limestone	Light-gray, fossilife...	76	Stump	33

This data table type is used to create complex lithology logs.

- The *Lithology Keyword* column contains keywords to match the corresponding lithology scheme items, which is usually the rock name. This column is used to create fill patterns, etc. for the various interval blocks in the log.
- The *Lithology Description* column contains full text descriptions, typically for the rock type, and can be used for complex text logs.
- The *Indent Percentage* column is used to represent the percentage of the interval block to display in the left-right direction. The normal range is zero to 100. None of the block is displayed with a zero percentage and 100 percent displays the whole block. The indent percentage can be used to display weathering resistance in a lithological unit.
- The *Indent Keyword* column contains keywords for the lithology indent lines scheme items.
- The *Indent Scale* column is used to control the overall scaling width of the lithology indent line definition. The range is zero to 100. All values greater than 100 are set to 100 and all values less than zero are set to zero. A zero scale flattens the line and a 100 scale sets the width of the line to half the width of the lithology log. Therefore, if the lithology log is three inches wide, the range of the lithology line represents 1.5 inches. The indent scale should be used with the indent percentage.

Project Settings Table

Project settings tables are a special type of text table and are automatically created when you open a new **Strater** project file. They are used to store projection information.

Borehole 1:-Multi-* Lith BH-2 Lith BH-1 Project Settings						
E6						
	Project ...	Company Name	Location	Project ...	Drilling Date	Comments
1	Transgas	Acme Inc.	Douglas	12-44	12/4/2008	

*A project settings table is automatically created when a new **Strater** project is opened. This table stores linked text data that can be used in the header or footer panes in the borehole view. Its use is optional.*

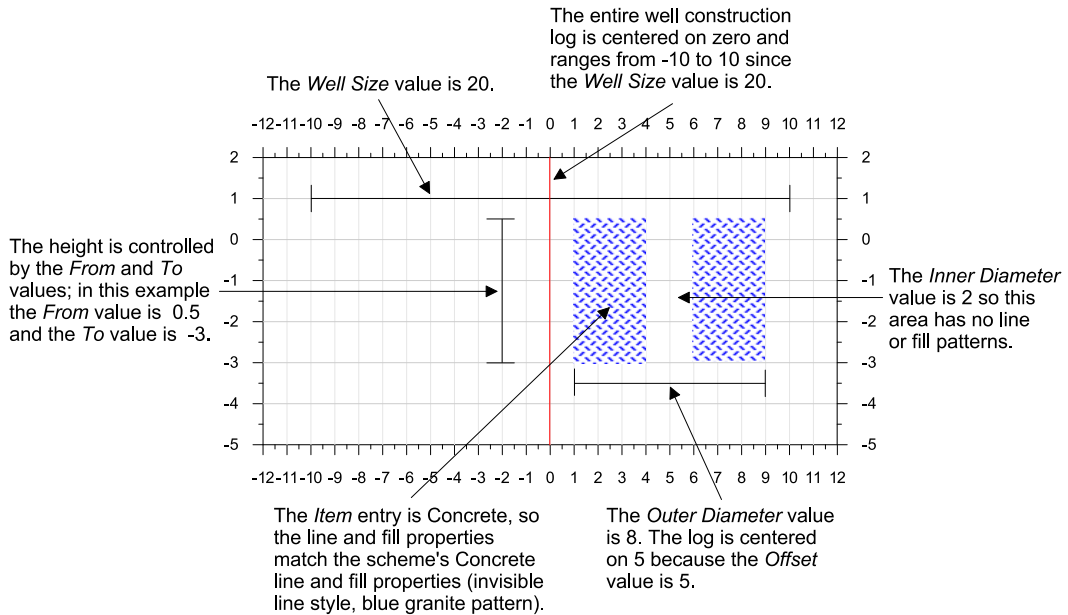
This table stores text data, such as the project name, project location, project leader, and miscellaneous comments.

Well Construction Table

Well construction tables are a special type of interval table used to define the geometry of specific items in a well construction log, such as casing and cap information. Well construction logs use schemes to define the properties for each item in the well construction table.

The default column definitions include Hole ID, From, To, Outer Diameter, Inner Diameter, Offset, and Item. The required well construction columns are specific and require interaction with well construction schemes.

- The *Outer Diameter* column is the outer size of the item.
- The *Inner Diameter* column is used to cut a section out of the middle of the items so that it is line- and fill-free.
- The *Offset* column offsets the item within the well.
- The *Item* column contains keywords for the well construction scheme items. This is usually the name of the item (i.e. Bentonite or Concrete).



Associating Well Construction Data to a Well Log

Well construction logs require specific data columns in the data table (*From*, *To*, *Well Item*, *Offset*, *Inner Diameter*, and *Outer Diameter*), a well construction scheme, and a well size defined in the **Property Manager**. All of these pieces of information work together to create complex well construction logs.

The following is an example of information in a well construction data table that contains the required column information.

Hole ID	From	To	Outer Diameter	Inner Diameter	Offset	Item
MW-5	0.5	-3	8	2	5	Concrete

*This example file is used in the graphical description above. In this example the *From* and *To* values are descending, so the Borehole Orientation in the **Borehole View Properties** is set to Elevation.*

This same well includes the following information in its **Property Manager**.

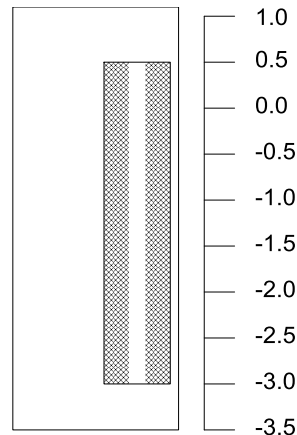
Well Construction Properties	
Well Table	Well Construction
Well Item Column	Item
Offset Column	Offset
Inner Diameter Column	Inner Diameter
Outer Diameter Column	Outer Diameter
Well Construction Scheme	Well Construction - Item
Well Size	20
Screen Scale	1

*The data table columns, a well construction scheme, and the well size need to be specified in the **Property Manager** to display a well construction log.*

When this information is combined you have all the data required to build a well construction log.

The simple well construction log to the right is based on the data displayed above. Note the *From* and *To* levels of the log are aligned with 0.5 and -3.0 in the depth log that was added for greater clarity.

Strater provides many customizable options for well construction logs, including scheme entries to customize screen, casing, cover, and cap styles.



*The final well construction log is based on scheme, **Property Manager**, and data table information.*


Project Data


All data represented in boreholes reside in data tables and must be in column and row format. You can load data into a new table, load data into an existing table, or manually enter data into an existing table within a Strater project. Each log type requires specific setup requirements for their associated data table; please see the online help topic *Data Formatting Requirements for Log Types* for detailed information.

File Formats

Strater can read numerous file formats, such as data files (including Excel spreadsheets, LAS files, and ASCII text files) and databases. **Strater** can also link to virtually any database system installed on your computer using the *Data link source* in the **Open** dialog during data import. To link to a database click *Load Database* in the **Open** dialog. Use the four tabbed pages on the **Data Link Properties** dialog to select the data type in the connection and establish the connection to the database.


Loading Data

With a data table tab active, select **File | Load Data** or click . Use the *Look In* field to locate the desired file to download. Select the data file and click **Open**. The data is opened into a new data table.

To load the data to an existing data table in the project, click on that data table tab to make it active. Select **File | Load Data** or click . Use the *Look In* field to locate the desired file to download. Select the data file and check the *Import data into current table* checkbox. Click **Open** and the data is added to the active table.

Creating New Tables and Data

Although new data tables are automatically created when you load data, you can also create a blank table.

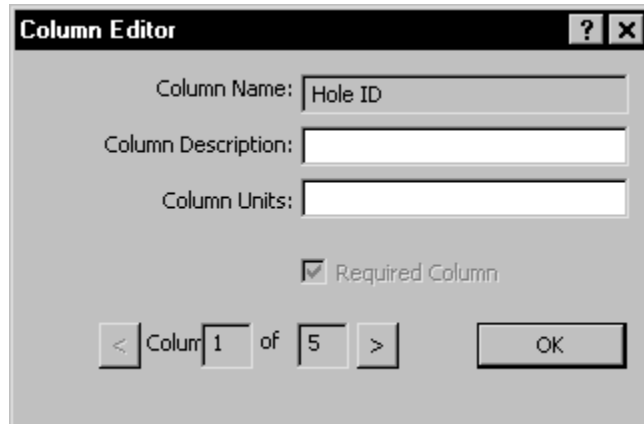
1. With a data tab active, select **File | New | Table** or click . The **Create New Table** dialog opens.
2. Enter a *Table Name*.
3. Select the table type from the *Base Table Type* drop-down list.
4. Click **Create**. A blank data table appears in the project tabs with the required columns associated with the selected base table type.

5. Enter data manually, either by typing data in each cell or cutting and pasting data across multiple rows and columns. Make sure that the pasted data conforms to the columns in the table. Alternatively, you can load data into this table. See the **Loading Data** section above.

Columns

Each column contains three properties: *Column Name*, *Column Description*, and *Column Units*. The description and units are optional for every column. The column properties are edited in **Table | Edit Column Properties**.

If a column is required for a particular table type, for example the *To* column in an interval table, the column name cannot be changed and has a gray background in the **Column Editor**. However, optional column names are changeable.



*The **Column Editor** is used to add a description and units for columns, and to edit the name of some columns.*

Rows

Typically, each row in the data table is devoted to data associated with a specified depth or interval in the borehole. Rows can be added and deleted using the commands in the **Edit** menu.

Multiple Boreholes in the Data Table

One important aspect of **Strater** is that data for multiple boreholes may be entered in one or several tables. In a data table, boreholes are defined by their Hole ID. There is no limit to the number of boreholes that can exist in a data table.

Borehole 1:-Multi-		Lithology		Mineralization		
A1		DH 213				
	A Hole ID	B	From	C	To	Rock T...
10	DH 213		1060		1080	Dolomite
11	DH 213		1080		1180	Sandstone
12	DH 218		825		840	Shale
13	DH 218		840		853	Dolomite
14	DH 218		853		877	Dolomite
15	DH 218		877		942	Dolomite
16	DH 218		942		956	Dolomite
17	DH 218		956		970	Limestone
18	DH 218		970		1001	Limestone
19	DH 218		1001		1040	Limestone
20	DH 218		1040		1117	Limestone
21	DH 218		1117		1148	Dolomite
22	DH 218		1148		1160	Sandstone
23	DH 214		660		670	Shale
24	DH 214		670		750	Dolomite

In this example there are data for three different boreholes: DH 213, DH 218 and DH 214. You can use this table to create multiple logs in the same borehole view, each based on one of these Hole IDs.

Borehole Logs

Displaying borehole logs requires a borehole view, data, and (for some log types) schemes. You can have multiple borehole views in each project file, and multiple boreholes represented in a single borehole view.

Adding Logs to a Borehole View

1. With a borehole view active in the workspace either select **Tools | Log Items | [log type]** or click the icon associated with the desired log item.
2. Move the cursor to the desired position in the log pane and click where the log should be displayed. Log items cannot be added to headers and footers panes. This action sets the location for the log in the view. You can change its location later.
3. After clicking in the log pane you are prompted to select data. You have two options for selecting data for this log:
 - a. Select a new data source via the *Look In* field in the **Open** dialog.
 - b. Associate the new log with existing data in the project. In the *Use Current Table* field use the drop-down list to select an existing data table.
4. Because **Strater** allows each log in a borehole view to represent a different Hole ID you must make sure that the new log is representing the desired borehole. Highlight the new log and click the **Base** tab in the **Property Manager**.
5. Select the desired Hole ID from the *ID Filter* drop-down list.

Adding Objects to a Borehole View

An *object* is any log or drawing item that you can add to a borehole view. In this section we will discuss adding drawing objects to the view.

1. Select **Draw | [drawing object]** or click one of the drawing object icons.
2. Move the cursor to the borehole view and click in the location where you want the object to appear. This could be in any of the three panes.
3. Draw the item.
4. Use the information in the **Strater** online help to move and edit the object.

There is no limit to the number of objects that can appear in a borehole view.

Working in Design Mode

If you are in design mode and have created a log in the borehole view, a graphical image appears for display purposes to represent the log. This graphic is just a place holder and is not related to real data. Refer to the online help file for information on linking data to the design.

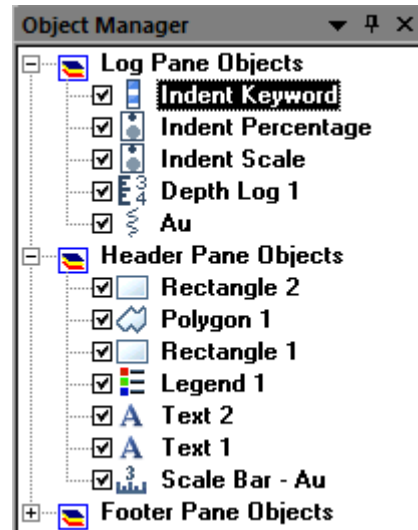
Editing Object Properties

The **Property Manager** contains a list of all properties for the currently selected object in the borehole view. See the online help for the specific object you have selected for more information on the properties unique to that object.

Object Manager

To select an object either click it in the borehole view; or, in the **Object Manager**, click on the name of the specific object. In complex borehole views it is sometimes easier to select a specific object in the **Object Manager**.

When an object is selected, properties for that object are displayed in the **Property Manager**. The **Property Manager** should be displayed by default, but if you do not see it select **View | Managers | Property Manager**.



*The **Object Manager** lists all objects and logs that appear in the current borehole view. Click the name of an object to display its properties in the **Property Manager**.*

Changing Properties

The **Property Manager** displays the properties for selected objects. For example, a selected polyline has *Style, Color, Foreground Opacity, Width, Start Style, End Style, and Scale* properties. To change a property, make the changes within the **Property Manager** when the desired object is selected. The properties available depend on the property type. In the polyline example, changing the color requires clicking the current color and selecting a new color from the color palette; changing the width requires typing a new number or scrolling to a new number. The options available for all objects, including logs, are extensive. Please see the detailed information in the online help for specific instructions for each object.

After making changes in the **Property Manager** the object properties are automatically updated in the borehole view. To disable auto-update, uncheck the *Auto Update* box at the bottom of the **Property Manager**. When all of the changes have been made, click **Apply** to update the object's properties in the borehole view.

Log Items

The following log items are available in **Strater**.

Depth

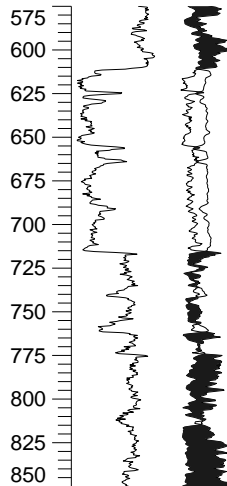
Depth logs are used as a scale bar to display the depth or elevation of the data in the log pane.

Line/Symbol

Line/symbol logs are used to display data as a line/symbol graph. Line/symbol logs are useful for displaying assay values, geophysical parameters, moisture content, etc.

Crossplot

Crossplot logs are used to display intersections of two data curves on a graph. Crossplot logs can be used to characterize properties such as porosity, water saturation, or clay content by comparing where two logs intersect.



These are examples of line-type logs from left to right: depth, line/symbol, and crossplot logs.

Zone Bar

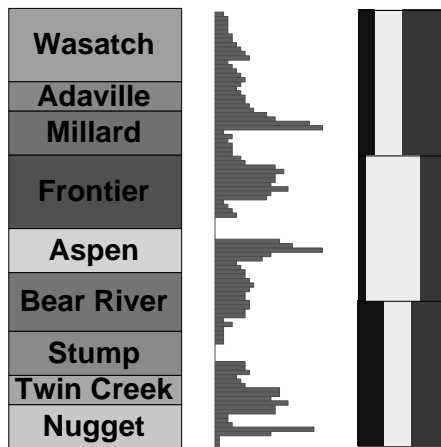
Zone bar logs display a wide variety of logging data. For instance, zone bars can represent sample intervals, alteration zones, lithology, contamination layers, etc.

Bar

There are two types of bar logs: standard bars and polarity bars. Standard bar logs plot a bar from the data minimum value to the row's data value. Polarity bar logs plot data based upon zero so there are bars on both sides of zero if there is a mix of negative and positive data.

Percentage

Percentage logs are similar to bar logs. This log is often used to show the different percentage of alterations in a sample; the amounts of sand, clay, gravel, silt, etc. The percentage log uses data fields to create a series of blocks (interval data) or polygons (depth data).



These are examples of bar-type logs. From left to right: zone bar, bar, and percentage logs.

Post

Post logs are used to display symbol positions and text. The symbols can represent sample locations at depth or intervals, and in the case of monitoring wells, the depth to water, contamination, etc.



Classed Post

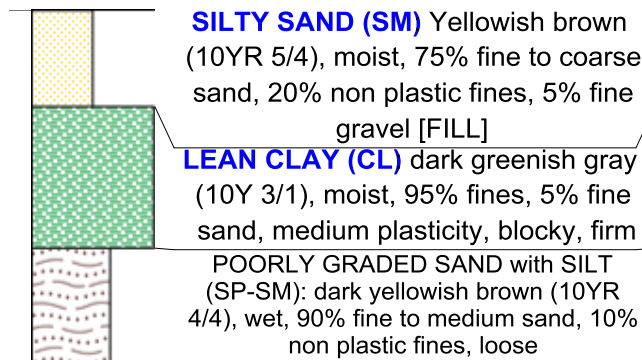
Classed post logs are similar to the post logs, except classed post logs use range schemes and numerical values to determine the symbol properties.

Complex Text

Complex text logs show text in intervals. This type of complex text is generally used for rock descriptions, alteration descriptions, or any general descriptive text that represents interval data. Long text blocks are wrapped to fit within the log width. Separator styles can be used to separate text in long descriptions.

These are examples of post-type logs. A post log is on the left and a classed post log using a range scheme is on the right.

You can also merge the contents of two or more consecutive intervals that contain the same displayed text.



Complex text logs display information about intervals. This complex text log also uses Offset Ticks separator lines and is matched to a lithology log on the left.

Graphic

Graphic logs allow you to specify image file names and display the image as the fill for the appropriate interval. This is useful in displaying photos of core, rock type, alteration, etc.

Lithology

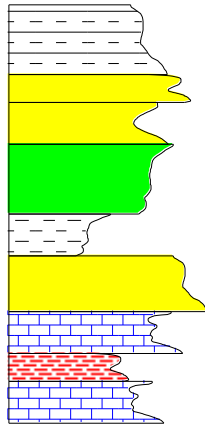
Lithology logs show the various stratigraphic layers in the borehole. The display can be as simple as a filled block from the top to bottom, or the display can be more elaborate and show weathering patterns and line types.

Well Construction

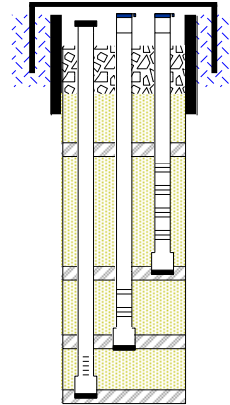
Well construction logs replicate a well construction diagram for the log, and are generally used in the environmental industry. This log shows items such as screen, packing material, end caps, and covers.



Graphic logs use image files within the log. This example contains different images representing different strata.



Lithology logs display stratigraphic layers. This lithology log shows indent percentages and indent lines.



Well construction logs represent the borehole characteristics.

Drawing Objects

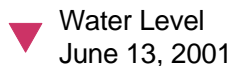
You can draw text, polygons, polylines, symbols, rectangles, rounded rectangles, and ellipses in **Strater's** header, footer, and log panes. In addition to these drawing objects you can import graphics, link text to a data table, add scale bars for log items, and add legends for scheme data.

Imported Objects

Imported objects are generally used to display information such as company logos, location maps, or other graphic images. You can import images, metafiles, and vector files and can place them anywhere in the borehole view.

Linked Text

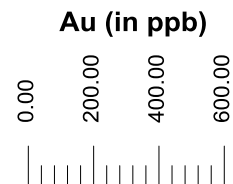
Linked text is used to show information such as location information, depth, driller name, etc. Linked text is derived from data table contents or borehole view property settings. The text in the linked text object changes when changes are made to the contents in the linked data table. Use the **Property Manager** to change the linked text properties.



Several items can appear in header and footer panes. This example shows a symbol, text (Water Level), and linked text (June 13, 2001). When a new water level reading is taken, the change in the database is reflected in updated text (date) in the header or footer pane.

Scale Bar















A scale bar is used for variables in log items. Scale bars are linked to line/symbol, crossplot, or bar logs. You can also create a scale bar that is not associated with a log. Scale bars can be automatically created with log design or they can be manually created with **Draw | Scale Bar**.



Scale bars show variable ranges in log items.

Legends

You can easily create legends that describe the contents of logs whose appearance is based on a scheme. Legends display user-defined colors, symbols, numerical ranges, and keywords to help readers understand the visual content of a log.

		Legend Title	
Legend 1		45.00 - 49.50	 67.50 - 72.00
 Hard		49.50 - 54.00	 72.00 - 76.50
 Medium-Hard		54.00 - 58.50	 76.50 - 81.00
 Medium-Soft		58.50 - 63.00	 81.00 - 85.50
 Soft		63.00 - 67.50	 85.50 - 90.00

Legends are directly related to the scheme associated with a log. You can modify all the content of a legend.

Tutorial

Now that you have an overview of **Strater**, let's create a borehole. We will create some log items, edit the log items, and then add objects to the header and footer.

Starting Strater

To begin a **Strater** session:

1. Click the Windows **Start** button.
2. Navigate to **Programs | Golden Software Strater 2** and click **Strater 2**.
3. **Strater** starts with a new borehole view display. This is the work area to produce graphical boreholes. The first time you open **Strater** you are prompted for a serial number. Your serial number is located on the inside front cover of this quick start guide. If you purchased **Strater** with the download only option, the serial number was emailed to you with the download directions.

If **Strater** is already open, click **File | New | Project** to start a new project before continuing with the tutorial.



Creating Log Items

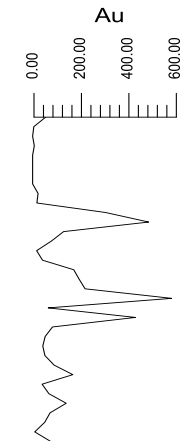
Log items can be designed in active mode or in design mode. If you prefer to design the borehole first and then associate data later, you can use design mode. We will create a borehole in active mode in the tutorial.

Creating a Line/Symbol Log

Line/symbol logs are used to display data as a line, symbol, or line and symbol graph. In this example, a variable (Au) is plotted against depth.

To create a line/symbol log:

1. Select **Tools | Log Items | Line/Symbol**. Alternatively, you can click .
2. Click near the center of the log pane because we will position the log item more exactly later. The **Open** dialog appears.
3. Browse to **Strater's SAMPLES** folder. The folder is typically in the installation folder for the Strater software. The default directory path is *C:\Program Files\Golden Software\Strater 2\Samples*.
4. Double-click the TUTORIAL 1.XLS file to open. Alternatively, you can click the TUTORIAL 1.XLS file once and click **Open**.
5. The **XLS Import Options** dialog is displayed because there are two worksheets in the file. Select *Depth* and click **OK**.
6. In the **Specify Worksheet Column Definitions** dialog, check the *Specify Column Header Row* box. Checking this box means the information in the specified row is used for field names. The headers (Hole ID, Depth, and Au) are located in the first row, which is the default row header box. If the headers were located in another row, you could enter another number to the right of the *Specify Column Header Row* text. This dialog also allows you to limit the range of imported rows or enter new field titles.
7. Click **Next** to open the **Specify Data Type and Column Positions** dialog.
8. The table we are importing is a depth table because there is only one column of depth information. Select *Depth (Single Depth)* as the *Data Type* if it is not already selected.
9. Because our column names match the requested fields (*Hole ID* and *Depth*), they are automatically entered into the *Hole ID* and *Depth* boxes in the *Specify Column Definitions* group. You can choose new columns by clicking  and selecting a column from the drop-down list. Leave the column definitions at the defaults for this example.
10. Click **Load** to load the data into a data table and create a line/symbol log with default properties.
11. Note that a scale bar appears in the header pane. This occurred because the default option for line/symbol logs is to automatically add a scale bar to this log type. You can disable this in **Tools | Options** by unchecking the *Auto Create Scale Bar* checkbox.




The line/symbol log displays depth and variable information.

Creating a Depth Log

Depth logs display the borehole's depth or elevation information.

To create a depth log:


1. Select **Tools | Log Items | Depth** or click .
2. Click to the left of the line/symbol log in the log pane.

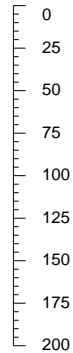
A depth log is created with the default properties.

Creating a Zone Bar Log

Zone bar logs can display a variety of well log information, including lithology and contamination layers, for example.

To create a zone bar log:

1. Select **Tools | Log Items | Zone Bar** or click .
2. Click in the log pane to the right of the line/symbol log.
3. In the **Open** dialog, double-click the TUTORIAL 1.XLS file in the SAMPLES folder.
4. Click *Lithology* in the **XLS Import Options** dialog and then click **OK**.
5. In the **Specify Worksheet Column Definitions** dialog, check the *Specify Column Header Row* box.
6. Click **Next** to open the **Specify Data Type and Column Positions** dialog.
7. The table we are importing is an interval-type table because there are two columns of depth information showing depth ranges. Select *Interval (From-To)*. Because our column names match the requested fields (Hole ID, From, and To) they are automatically entered into the *Hole ID*, *From*, and *To* boxes in the *Specify Column Definitions* group.
8. Click **Load** to load the data into a data table and create a zone bar log with default properties.



Depth logs display depth or elevation information for the borehole.




Zone bar logs show information at intervals.

Creating a Complex Text Log

Complex Text is text that is descriptive or longer than a simple title or mineral/formation name.

To create a complex text log:

1. Select **Tools | Log Items | Complex Text** or click .
2. Click inside the log pane to the right of the zone bar log.
3. In the **Open** dialog, select *Lithology* in the *Use Current Table* field and click **Open**. Because the table we are going to use is already in the project there is no need to go through the import process again. A complex text log is created with the default properties.


Editing Log Properties

The log properties are edited through the **Property Manager**. (If you do not see the **Property Manager**, click **View | Managers | Property Manager**.) When an object is selected, all of its properties appear in tabbed pages in the **Property Manager**.

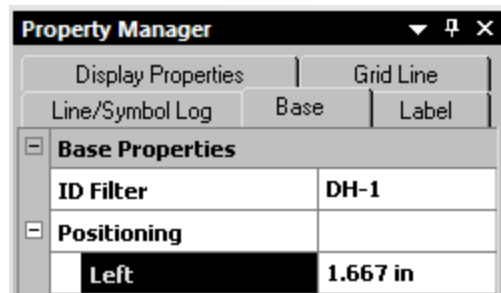
Editing Log Item Positions

Position log items by selecting a log and dragging it to the left or right to a new location. More accurately position log items through the **Property Manager** or menu commands.

To edit the depth log position:

1. Select the depth log in the borehole view.
2. In the **Property Manager** click the **Base** tab.
3. Expand the *Positioning* section by clicking the plus sign .
4. Highlight the contents next to the *Left* title, type 1.0 into the box, and then press ENTER. (If you are working in centimeters, type 2.54.)

As soon as ENTER is pressed, the depth log is moved in the borehole view.



Enter 1.0 inches as the depth log left position.

Log items can also be positioned relative to one another through the **Arrange | Space Objects** command. The line/symbol log should be to the right of the depth log before completing the next section. If the line/symbol log is to the left of the depth log, click the line/symbol log and drag it to the right of the depth log.

To space the line/symbol log relative to the depth log:



1. Select the depth log and the line/symbol log. The easiest method of selecting both logs is through the **Object Manager**. In the **Object Manager**, click *Depth Log 1*, hold down the CTRL key on your keyboard, and then click *Au*.
2. Click **Arrange | Space Objects | Right to Left**. This aligns the left edge of the line/symbol log bounding box to the right edge of the depth log bounding box.

Editing Schemes

Zone bar logs use schemes to relate data table information to interval block properties, such as fill color. When a zone bar log is first created, a default scheme is automatically created to fill the log. Create your own schemes by editing an existing scheme, by creating a new scheme from scratch, or by importing scheme files. When a scheme is created it can be used repeatedly. If you have many logs with the same properties, apply the log properties with a scheme instead of editing the properties for each log.

Schemes are optional with bar, classed post, post, and zone bar logs. Schemes are required with lithology, percentage, and well construction logs.

To create a new zone bar log scheme:

1. Select **Tools | Scheme Editor** or click . The **Scheme Editor** opens.
2. Click the  button in the bottom left corner of the **Scheme Editor** dialog.
3. In the **New Scheme** dialog, select *Base Scheme on Column Data*.
4. Select *Lithology* in the *Table Name* list.
5. Select *Lithology Keyword* in the *Column Name* list.
6. Type *Zone Scheme* into the *Scheme Name* box.
7. Select *Keyword* as the *Scheme Type*.
8. Click **OK** to return to the **Scheme Editor** dialog.

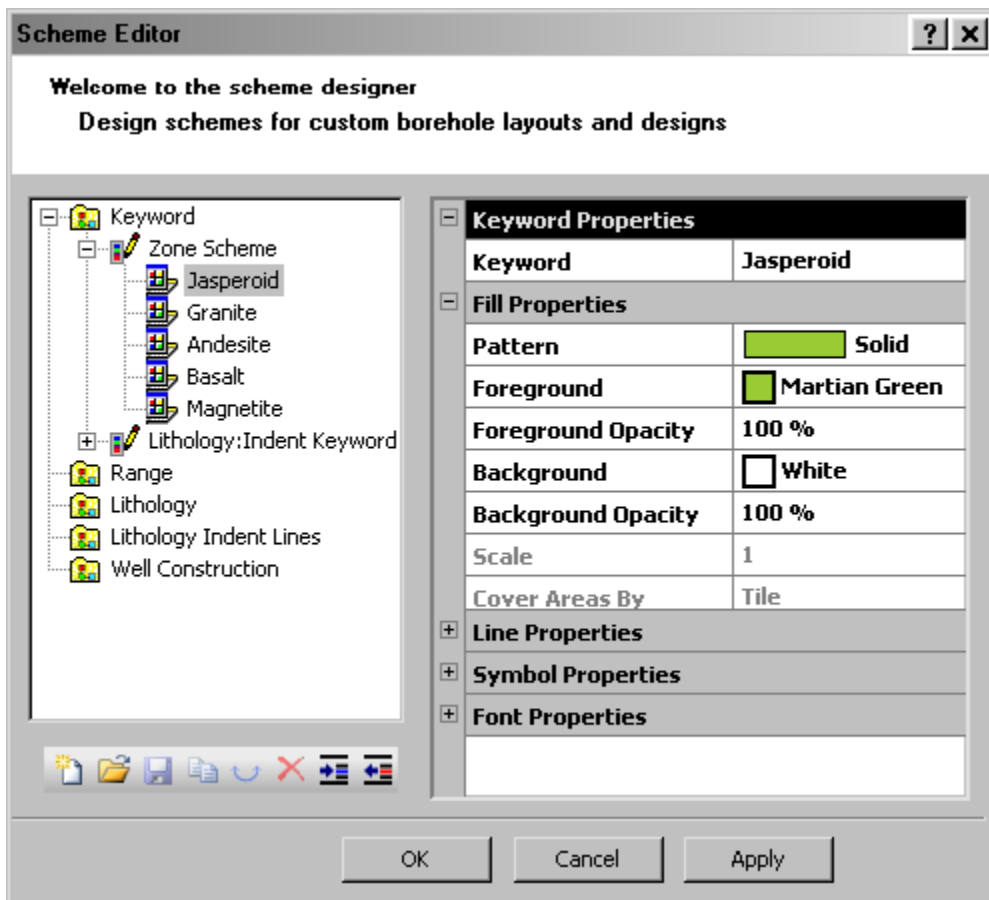
When creating a keyword scheme based on a column, **Strater** searches for all unique words in the Lithology Keyword column and determines the appropriate number of scheme items. There are five scheme items in this example.

In the **Scheme Editor** you can see the scheme types listed: *Keyword*, *Range*, *Lithology*, *Lithology Indent Lines*, and *Well Construction*. There are two schemes in the *Keyword* group, *Zone Scheme* and *Lithology:Indent Keyword*. *Lithology:Indent Keyword* is the default scheme that was created when the zone bar log was created. *Zone Scheme* is the scheme we just created. We can edit each of the scheme items in the *Zone Scheme* to set properties for each keyword.

Edit Scheme Properties

To edit the new scheme's properties in the **Scheme Editor**:

1. The *Keyword* scheme list should already be open. If not, click the plus sign \oplus next to *Keyword*.
2. Click the plus sign next to *Zone Scheme* to see the scheme's items: *Jasperoid*, *Granite*, *Andesite*, *Basalt*, and *Magnetite*. These words appear in the Lithology Keyword column of the data table.
3. Select *Jasperoid*. This opens the scheme item's properties on the right side of the dialog. Set the fill properties to whatever fill pattern and colors you like.





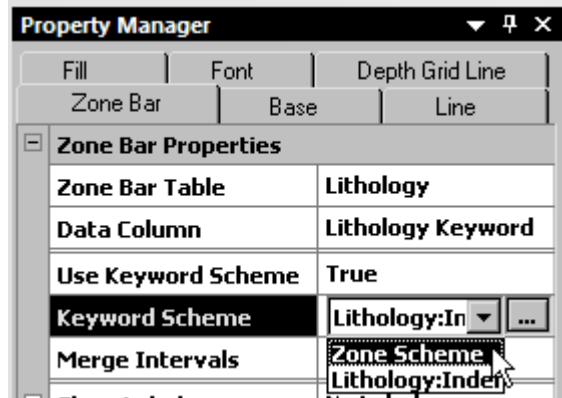
When an item is highlighted on the left side of the **Scheme Editor** its properties are displayed on the right side.

4. Continue setting the fill patterns for each of the scheme items.
5. After setting the fill patterns, click **OK** in the **Scheme Editor**.

Use a Scheme in a Zone Bar Log

To use the new scheme for the zone bar log:

1. Select the zone bar log in the borehole view.
2. In the **Property Manager**, select the **Zone Bar** tab.
3. Because we are using a scheme, we need to select a data column that contains keywords that are used to indicate the properties for each interval block. Click in the *Data Column* field and select *Lithology Keyword*, which is the column name we selected when creating the scheme.
4. Set *Use Keyword Scheme* to *True* if it is not already set to true.
5. Click *Lithology:Indent Keyword* in the *Keyword Scheme* box. The  button allows you to select a scheme and the  icon opens the **Scheme Editor**. Click the down arrow and select *Zone Scheme*.



To use a scheme, select a Data Column, set Use Keyword Scheme to True, and select a scheme in the Keyword Scheme list.

When Jasperoid, Granite, Andesite, Basalt, or Magnetite are found for an interval in the data, the corresponding interval block in the borehole view is assigned the scheme item properties. For future reference, note that the scheme item names are case-sensitive. If you were to change "Granite" to "granite" in one cell in the data table, the scheme item properties would not be displayed for that interval.

Editing the Complex Text Log Properties

The complex text log text and the text properties can be edited in several ways.

To edit all text properties:

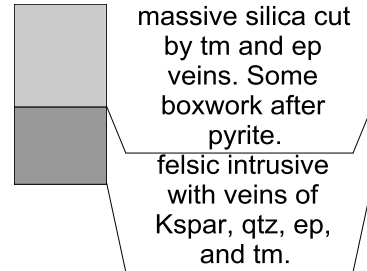
1. Select the complex text log.
2. In the **Property Manager**, select the **Font** tab.
3. Change the color of the text to blue by clicking on the current color (Black) and clicking on blue in the color palette.

Changes in the *Font Properties* group are applied to all of the text in the complex text log.

You can also change the text properties and text contents of each individual text block.

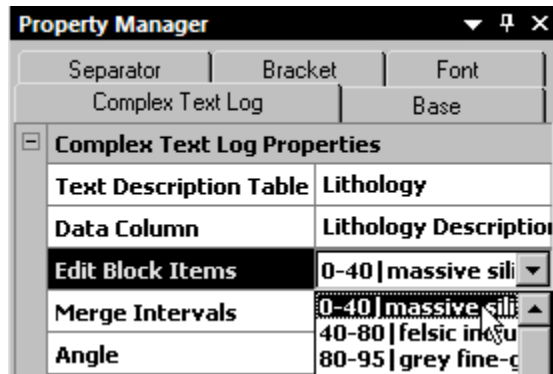
To edit an individual text block:

1. Double-click on the top text block.
2. The **Text Editor** dialog opens. Change the word "massive" to "Massive" by highlighting the letter "m" and typing "M." You can also change other text properties, such as color, in the **Text Editor** dialog.
3. Click **OK** in the **Text Editor**. The word "massive" is changed to "Massive."



Double-click in the top text block to change the block's properties.

You can also edit individual text blocks through the **Property Manager**. In the **Complex Text Log** tab click in the *Edit Block Items* box to see a list of all intervals and the corresponding text (e.g. 0-40 | massive silica cut by...). When an interval is selected, the **Text Editor** dialog is opened. You can make text property and text content changes in the **Text Editor** dialog.



Click on an interval in the Edit Block Items list to edit a text block.

Note: Text changes made in the borehole view are not written to the data table. Changes made to the text in the data table are saved in the data

table and displayed in the borehole view. Custom text properties, such as an individual block's color, are not saved when making changes to the text in the data table.

Creating and Editing Objects in the Header and Footer Panes


Although objects can be placed in any of the three panes, many are frequently added to the header and footer panes, which typically contain information about the company, borehole, etc. Most of this information is static; however, some of the information can change depending on changes to data.

Scale Bars

Notice that there is a scale bar and title in the header pane. The scale bar and title were created automatically when the line/symbol log was created. When the line/symbol log is moved, the scale bar and title move with the log. If the line/symbol log is deleted, the scale bar and title are also deleted. The scale bar and title can be edited by selecting the scale bar and changing the properties in the **Property Manager**. We will not edit the scale bar or title at this time, however. Instead, we will create some additional objects in the header and footer. Please refer to the *Scale Bar* and *Scale Bar Properties* topics in the online help file for additional information on automatic scale bars, linked scale bars, and user-defined scale bars.

Creating Text


Use the **Text** command to create static text in any pane in a borehole view.

1. Select **Draw | Text** or click .
2. Move the cursor to the location in the borehole view where you want the text to appear. Make sure you leave some space to the right for additional text.
3. As an example, type "Borehole Name:" (without quotes) into the **Text Editor** dialog.
4. Click **OK**. The text *Borehole Name:* appears in the borehole view.

Creating Linked Text

Linked text is used in the header or footer to show information such as location information, depth, driller name, page numbers, etc. Linked text is derived from data table contents or borehole view property settings and this text changes if the data are changed.

To create linked text:

1. Select **Draw | Linked Text** or click .
2. Move the cursor to the location in a borehole view where you want the linked text to appear, such as to the right of the *Borehole Name:* text created above, and click.
3. The borehole name appears, because this is the default linked text type.

You may need to move the linked text. Move it by clicking on it and dragging it to a new location.

If desired, you can change the data the linked text object displays. After selecting the linked text object, go to the **Linked Text** tab in the **Property Manager**. You can change the *Linked Text Type* and, if appropriate, associate the desired data table and column information.

Changing Boreholes

It is very easy to change boreholes in **Strater**. As mentioned earlier, the data tables can contain data for more than one borehole, logs for multiple boreholes can be displayed in one borehole view, and the project can include multiple borehole views.

The *Lithology* and *Depth* tables both contain DH-1 and DH-2 in the Hole ID fields. You can easily change the borehole from DH-1 data to DH-2 data.

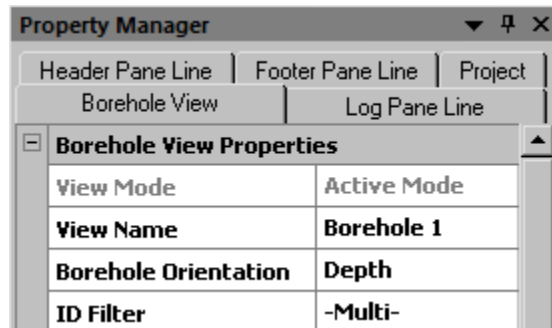
Change the Borehole for All Logs in the Log Pane

1. Select **View | Borehole View Properties** or click in the white space in the borehole view. **Borehole View Properties** opens in the **Property Manager**.
2. In the *ID Filter* field use the drop-down list and select DH-2. All borehole log items and linked text change to represent DH-2 data.

Change the Borehole ID for Individual Logs

Strater borehole views can include multiple logs, each of which can represent any borehole whose data is stored in the data tables. All the boreholes in the borehole view are now based on Hole ID DH-2 data. We will now switch one of the log's Hole IDs while not changing the Hole ID for the other logs.

1. Select the zone bar log in the borehole view. The Zone Bar properties opens in the **Property Manager**.
2. Select the **Base** tab. Note that the *ID Filter* field is currently set to *DH-2*.
3. Click inside the *ID Filter* field and use the drop-down list to select *DH-1*.
4. The data in the zone bar log is now based on the data for Hole ID DH-1.
5. Click outside any object in the borehole view to display the **Borehole View Properties** in the **Property Manager**. Note that the *ID Filter* field now displays *-Multi-*. This is the default display when two or more Hole IDs are represented by logs in the borehole view.



The ID Filter field displays -Multi- when two or more separate boreholes are included in the borehole view.

A Note about the Documentation

The **Strater** documentation includes this quick start guide and the online help file, accessed by going to **Help | Contents** from within Strater. Information about each command and feature of **Strater** is included in the online help file. The online help file also includes advanced information such as overlaying log items and creating depth log lines that extend the width of the page. In the event the information you need is not located in the online help file, other forms of **Strater** help include our support forum, knowledge base, FAQs, and technical support.

If you prefer printed documentation, the online help file can be printed in part or in full. See the *Printing the Online Help* section for more information.

Various font styles are used throughout the **Strater** documentation. **Bold** text indicates menu commands, dialog names, and page names. *Italic* text indicates items within a dialog such as group box names, options, and field names. For example, the **Save As** dialog contains a *Save as type* drop-down list. Bold and italic text may occasionally be used for emphasis.


In addition, menu commands appear as **Edit | Undo**. This means, "click the **Edit** menu at the top of the **Strater** window, then click **Undo** within the **Edit** menu list." The first word is always the menu name, followed by the commands within the menu list.

Printing the Online Help

The online help topics may be printed. You can print part of the file or the complete file.

Printing One Topic


To print one topic:

1. Open the topic you wish to print.
2. Click  **Print**.
3. If the **Contents** page is open in the help navigation pane, you are prompted to *Print the selected topic* or *Print the selected heading and all subtopics*. Select *Print the selected topic* and click **OK**.

Printing One Section


To print one section such as a tutorial:

1. Open the online help file by clicking **Help | Contents** in the **Strater** window.

2. Click the **Contents** page on the left side navigation pane.
3. Click the *Tutorial* book to expand the book.
4. Click a topic, such as *Tutorial Introduction*, within the *Tutorial* book.
-  5. Click **Print** within the help window.
6. A prompt appears asking if you would like to *Print the selected topic* or *Print the selected heading and all subtopics*. Select *Print the selected heading and all subtopics* and then click **OK**. All the topics included in the *Tutorial* book are printed.

Printing the Entire Help File

To print all of the topics in the help file table of contents:

1. Open the *Strater* book. This is the top-level book in the help file.
2. Click the *Printing the Online Help* topic.
-  3. Click **Print** within the help window.
4. A prompt appears asking if you would like to *Print the selected topic* or *Print the selected heading and all subtopics*. Select *Print the selected heading and all subtopics* and then click **OK**. All the topics included in the online help table of contents are printed.

WARNING: Printing the entire help file takes hundreds of letter-sized sheets of paper and is very time consuming to print. There is no table of contents or index printed with the file.

Getting Help


The quick start guide is a fast way to learn about the basics in **Strater**. There are also other sources of help with **Strater**.

Online Help

Extensive information about **Strater** is located in the online help file. To access online help, choose **Help | Contents**. You can navigate help using the **Contents**, **Index**, and **Search** pages in the navigation pane to the left of the topic page.

Context-Sensitive Help

Strater also contains context-sensitive help. Highlight a menu command, window region, or dialog box, press the F1 key and help is displayed for the highlighted item. Another way to access context-sensitive help is by clicking the context-sensitive help

icon . After clicking, the cursor appears with a **?** next to it. Select the item for which help is desired with the modified cursor and a help window appears.

Internet

There are several Internet help resources.

- Click *Forums* in the online help to research a **Strater** question or to post a question.
- Click *Knowledge Base* in the online help to research additional information in the online knowledge base.
- Use the **Help | Feedback** commands to send a problem report, suggestion, or information request by email.
- You can search the FAQs on our web page at www.goldensoftware.com. Direct links to the FAQs, the main **Strater** product page, and the Golden Software main website are available by selecting **Help | Golden Software on the Web**.

Technical Support

Golden Software's technical support is free to registered users of Golden Software products. Our technical support staff is trained to help you find answers to your questions quickly and accurately. We are happy to answer any of your questions about any of our products, both before and after your purchase. We also welcome suggestions for improvements to our software and encourage you to contact us with any ideas you may have for adding new features and capabilities to our programs.

Technical support is available Monday through Friday 8:00 AM to 5:00 PM Mountain Time, excluding major United States holidays. We respond to email and fax technical questions within one business day. When contacting us with your question, have the following information available:

- Your **Strater** serial number (located in the front cover of the quick start guide or in **Help | About Strater**).
- Your **Strater** version number, found in **Help | About Strater**.
- The operating system you are using (Windows XP, Vista, or 7).
- The exact wording of the first error message that appears (if any).

Contact Information

Telephone: 303-279-1021

Fax: 303-279-0909

Email: stratersupport@goldensoftware.com

Web: www.goldensoftware.com (includes FAQs, KB, and support forum)

Mail: Golden Software, Inc., 809 14th Street, Golden, Colorado 80401-1866, USA

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