Command Center Quick Start Guide

Version 1.4

Contents

Getting Started

To begin, you will be e-mailed user information either from your account representative, or directly from the LiveLog e-mailer. This information will contain a user name and typically a randomly generated password.

To get start we recommend you first log in to the web site (https://livelog.digidrill.com) and change your password.

Logging in

To log in to the web site, open a browser and navigate to https://livelog.digidrill.com.

This is the web version of the remote viewer, and also allows for managing users, licenses, and jobs. You can view a web dashboard and view log information from here. The site is mobile-friendly and should work on most mobile devices with a recent browser.

Changing your password

To change your password, navigate to https://livelog.digidrill.com. Once the site has loaded, log in.

Enter your account information when prompted, and click “Log in”.

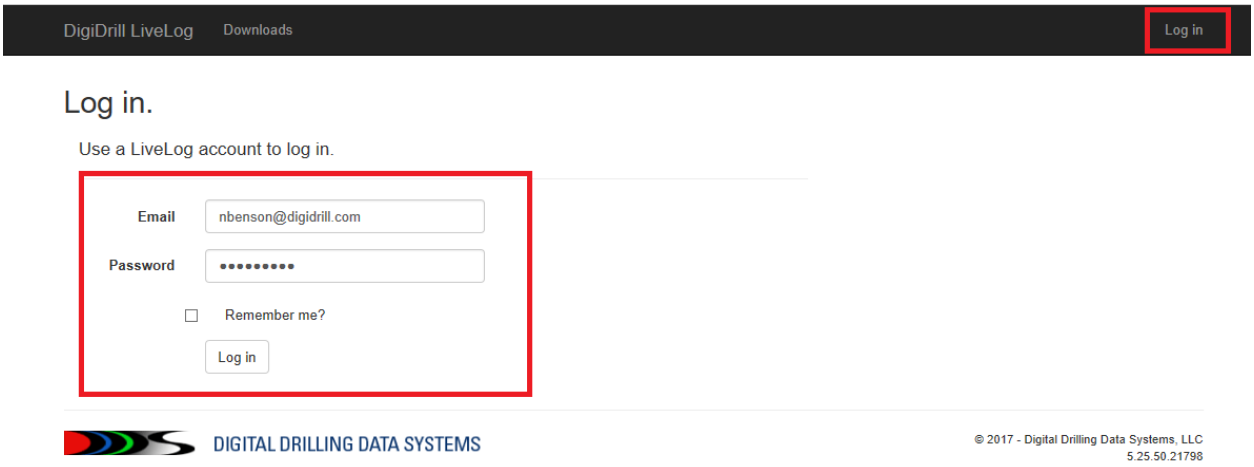


Figure 1 - Logging in to LiveLog

Once you have logged in, you will be brought to the main landing page. Locate your user name in the menu bar, and click on it.

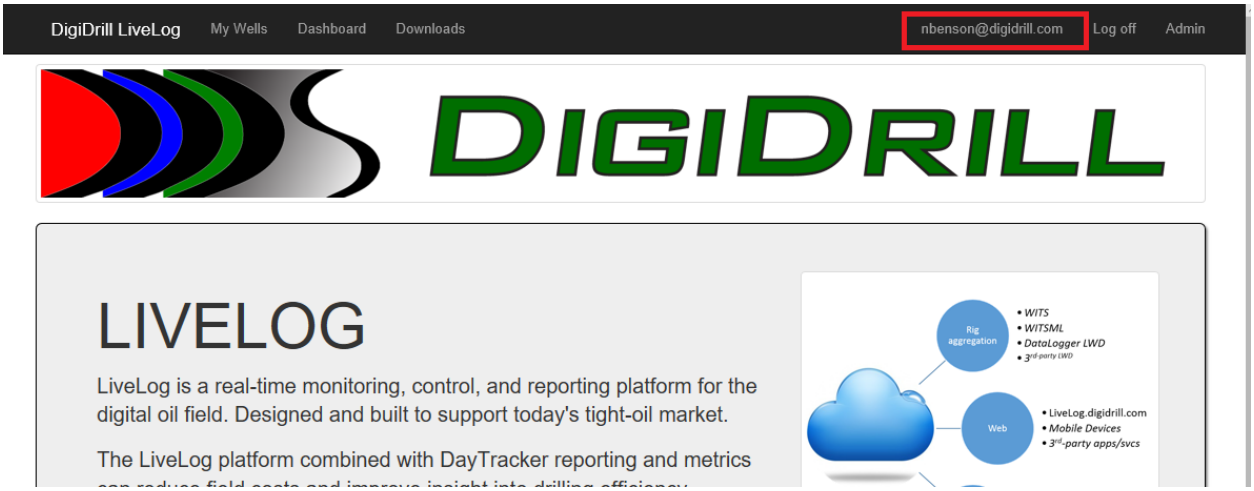


Figure 2- Changing User Settings in LiveLog

This will bring you to your user information. From here you can change your password.

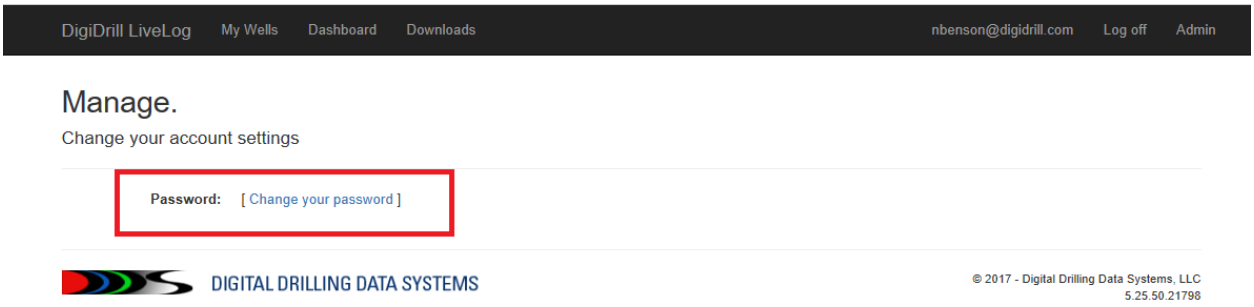


Figure 3 - Changing your password

Click on “Change your password” and you will be prompted to enter a new password.

LiveLog Web Interface and Administration

Viewing the Dashboard

The dashboard provides an overview of the wells you have access to. Wells that are active will show a status with color, and “stale” wells will show as “STALE”. You have the option of hiding stale wells or displaying them. Jobs are automatically expired off the dashboard when they have been stale for 10 days.

To view the dashboard, locate the “Dashboard” link on the top menu bar. Click on it and you will be brought to the dashboard page.

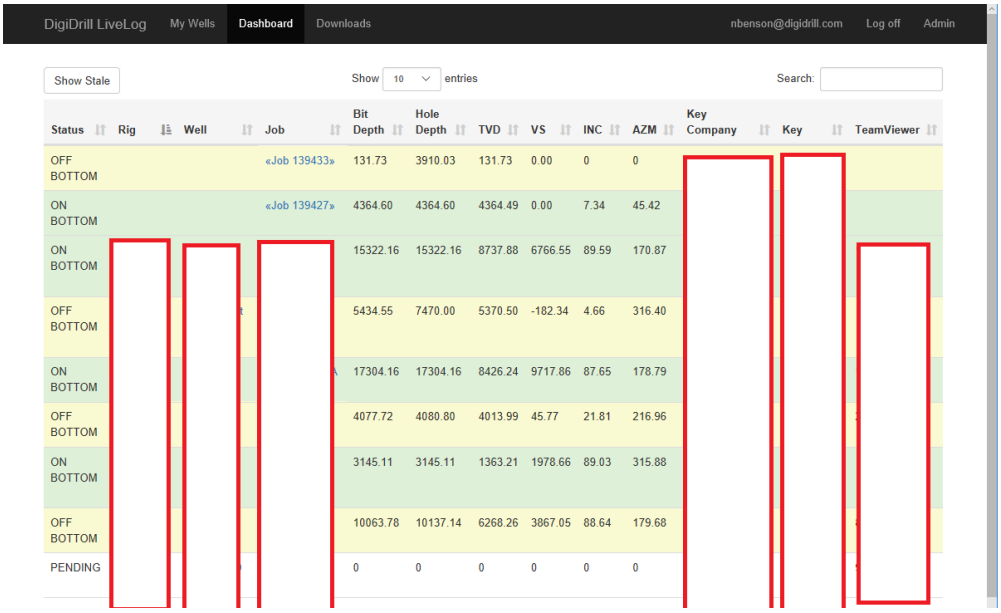


Figure 4 - Viewing the web dashboard

The dashboard will "tick" in real time and update the values displayed to track activity in the field. By default the dashboard will not display "STALE" wells. Stale wells are those that have not communicated with the server for at least 30 minutes. If a rig loses connectivity to the internet it will eventually show as stale.

Hiding or showing STALE wells

To show or hide stale wells, click on the button at the top left of the dashboard table. The title of the button states what action it will perform. If stale wells are being hidden, the button will display "Show Stale". If the wells are being shown, it will display "Hide Stale".

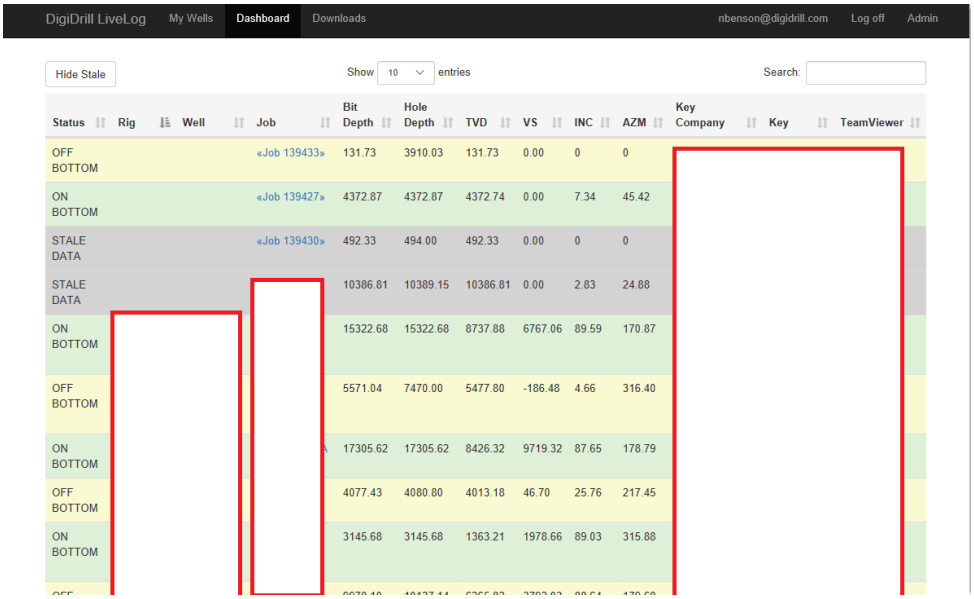


Figure 5 - The web dashboard with stale wells

Viewing Well Details

To view detailed information about the well, click on any of the available links on the dashboard. All links in the dashboard table will bring you to the detailed view of the selected well.

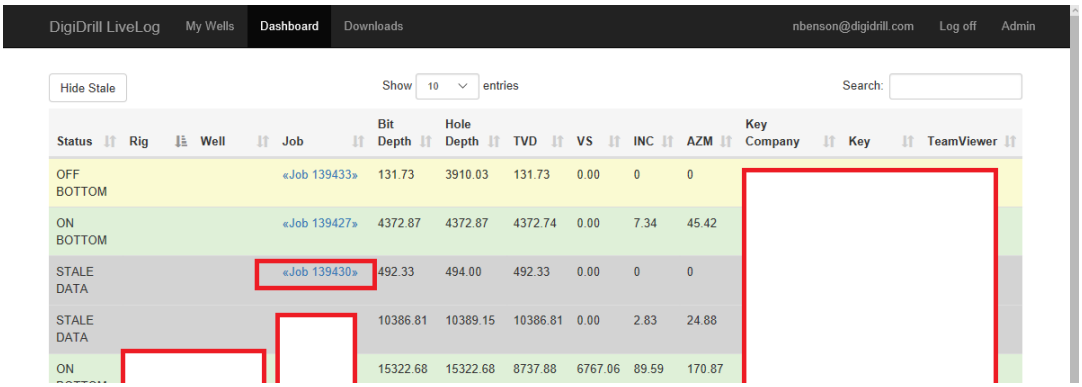


Figure 6 - Accessing well detail

The well detail page will show well header information, sync percentage (amount of data synchronized from the rig) as well as log information, surveys, and user access information. Access can be granted to specific users in the system here.

Viewing log information

The detailed view currently supports several pre-prepared views. The toolbar allows the user switch between the views as well as change certain settings of the currently displayed view.

- Geosteering
  This displays gamma data along with options for wrap ranges
- Surface
  This displays a basic surface log
- Temperature
  This displays downhole temperature as recorded by the MWD tool
- Resistivity
  This displays any resistivity data if it has been recorded

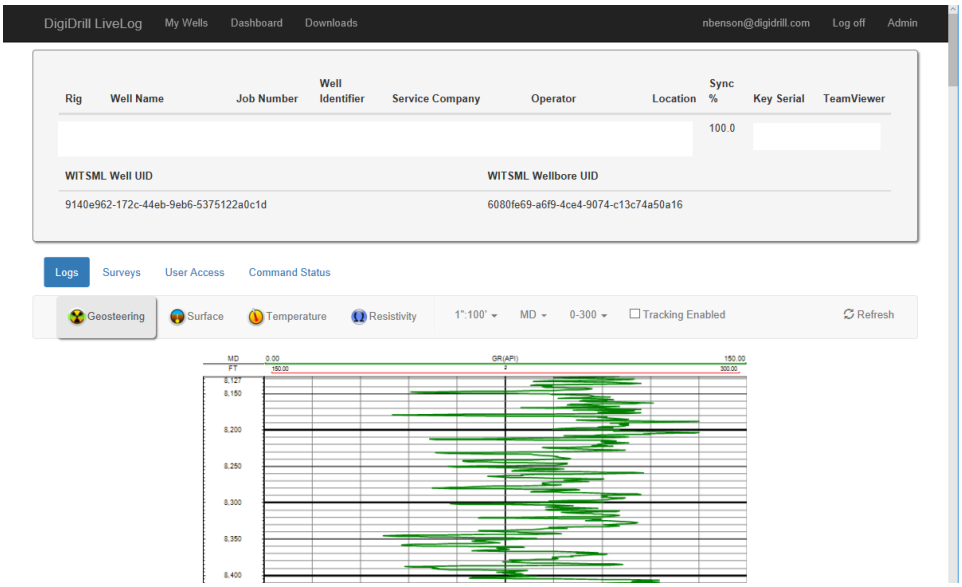


Figure 7 - Viewing well detail

The detail view also displays UID information necessary to connect external WITSML tools. The provided information displays the UID of the currently displayed well and wellbore. This is sufficient for most tools to connect to the log and survey data.

Using the plot toolbar

The toolbar above the plot area allows the user to customize their current view. The following options are available:

- View selection (geosteering, surface, temperature, resistivity)
- The scale of the displayed data
- The depth type of the displayed data (MD/TVD/VS)

- Tracking Enabled – enable the autoscrolling of the page to the bottom (deepest) part of the log
- Refresh – this button will force a refresh of the log image

Viewing Surveys

To view the surveys for the well, click on the “Surveys” button.

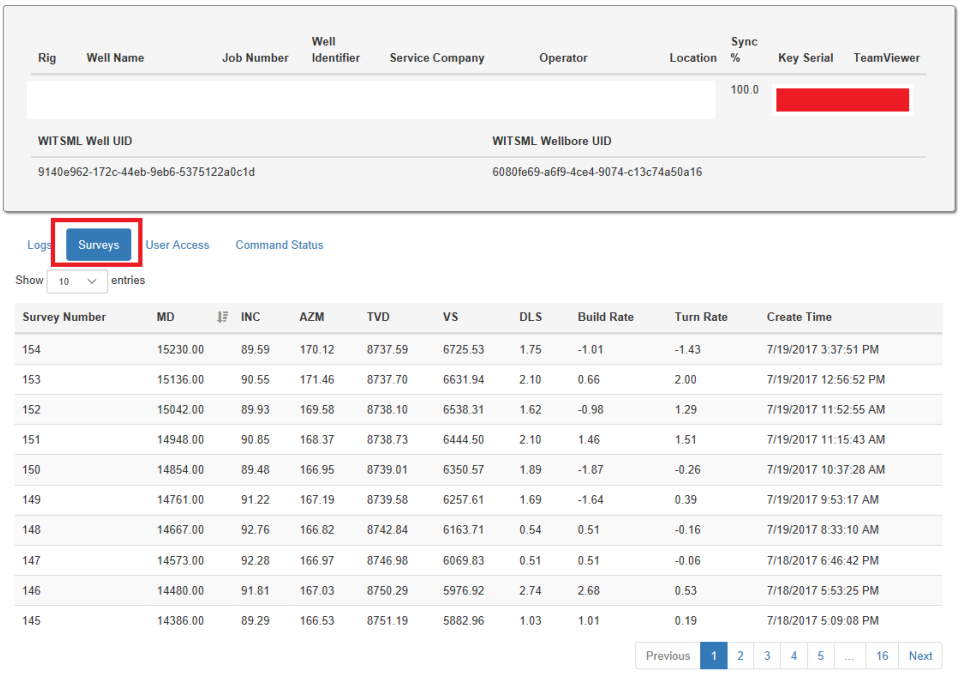


Figure 8 - Viewing surveys from the web

The table will display the survey information complete with the time it was displayed. It has options for the number of items to display per page, and the ability to switch between pages of surveys. The surveys are sorted by default by MD descending. You can change the sort order by clicking on any of the headers on the table.

Granting access to users

Access can be granted to other users by accessing the “User Access” button.

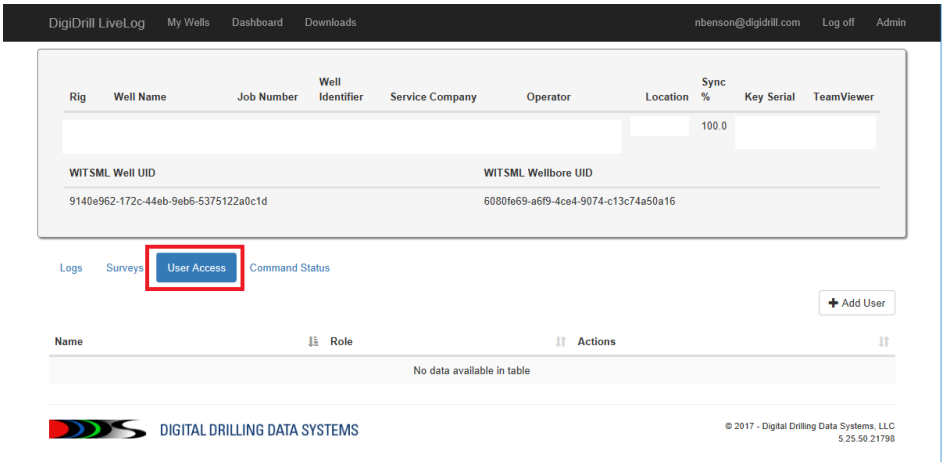
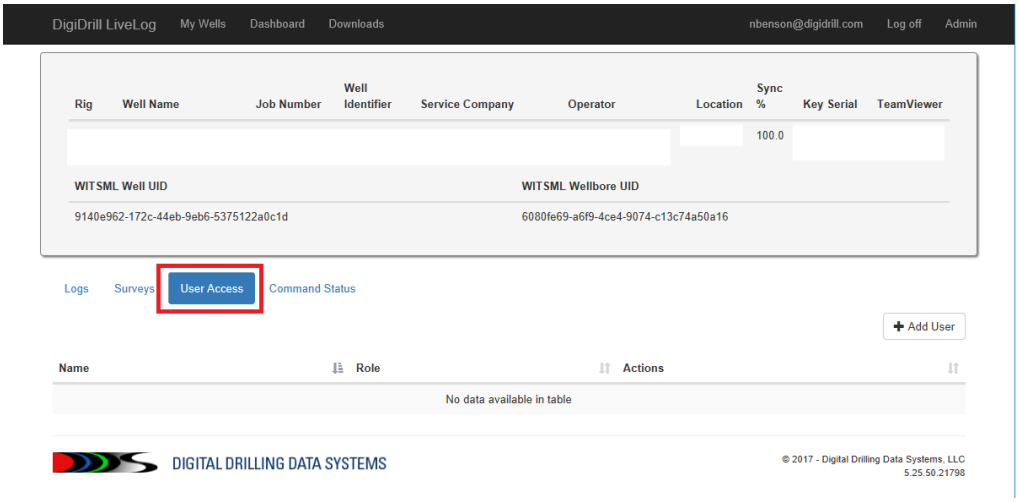


Figure 9 - Granting user permissions to wells

This will display all users with explicit permissions for the job. By default, users in the system that are marked as "Company Admins" will be granted access to all wells for that company. All other users, including regular users of the same directional company as well as external or other 3rd party users need to be granted permissions here.



Adding users to a well

Click on the "Add User" button. Enter the user's e-mail information and select the access type. For most cases, "User" should be selected. This grants read-only access to the well with no other special permissions.

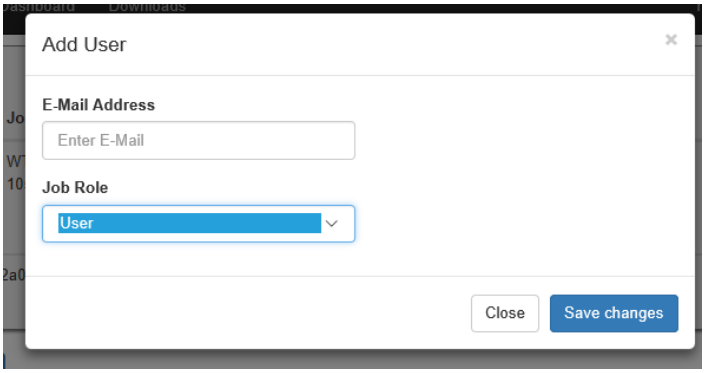


Figure 10 - Adding a user to a well

Command Center Windows Desktop Application

The Command Center desktop application is an advanced real-time monitoring application for well data. The user interface closely resembles the field interface for the DataLogger application. It allows users to perform many of the functions of the field software, including survey reports, generating logs, exporting LAS files, and editing data.

Downloading and installing the Command Center application

Downloading Command Center

Navigate to the LiveLog site (https://livelog.digidrill.com) and log in. Once you have logged in to the system, click on the "Downloads" link in the toolbar.

This will take you to the downloads page. The CommandCenter2 installer is available for download here.

From here you can also view release notes for the current release.

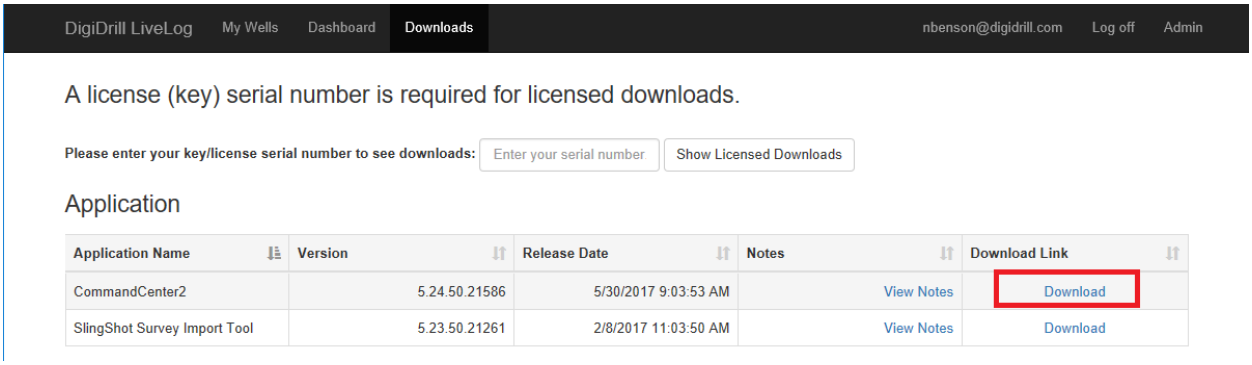
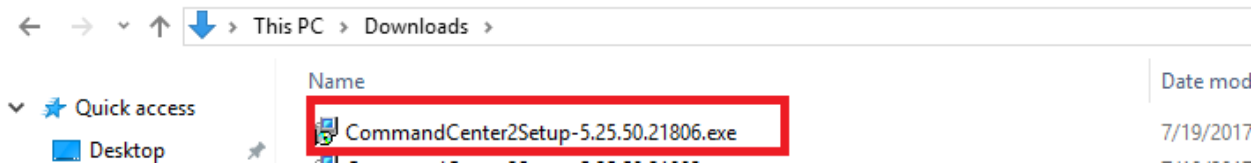


Figure 11 - Accessing downloads from the web

Click on the "Download" link and save the file.

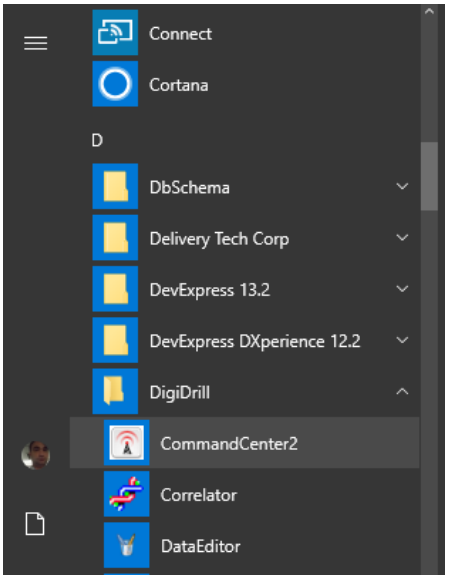
Installing the Command Center application

Once the application has been downloaded, run the installer package.



When prompted to accept the license, click “Yes”. Click next until the installer completes.

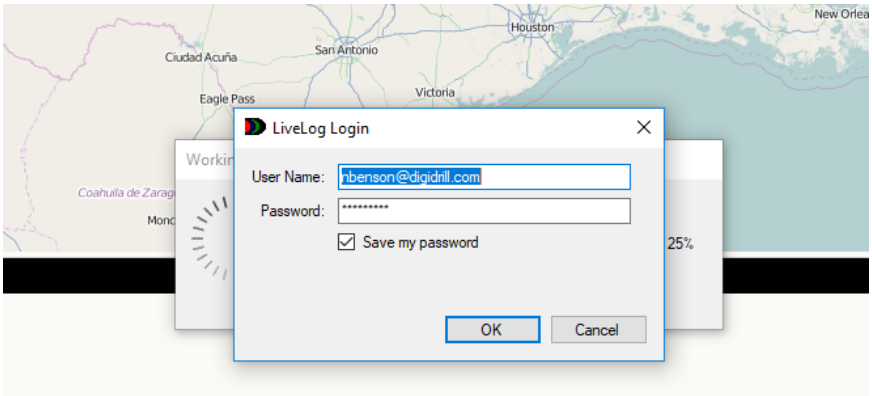
Once installed, the application will appear in your start menu.



Click on the icon to start the application.

Using the Command Center Dashboard

Once you have run the Command Center application from the start menu, you will be prompted to log in. Use the same user name and password you use for the LiveLog web site.



The first window displayed is the Dashboard or Map view. This displays a map overview of the wells you have access to as well as a grid that displays a list of all the active wells. The grid updates in real-time to display the most current data from the rig.

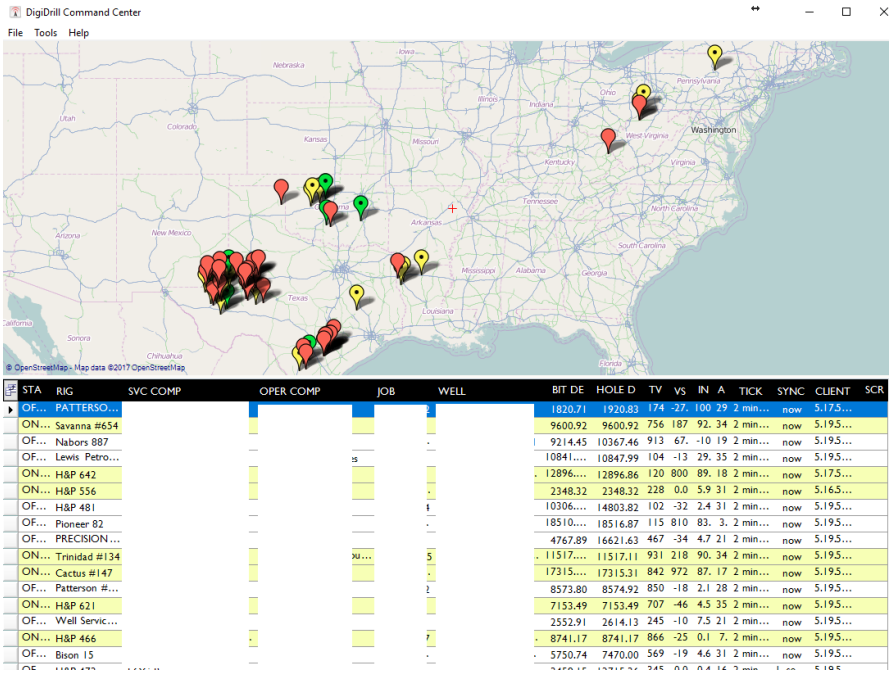
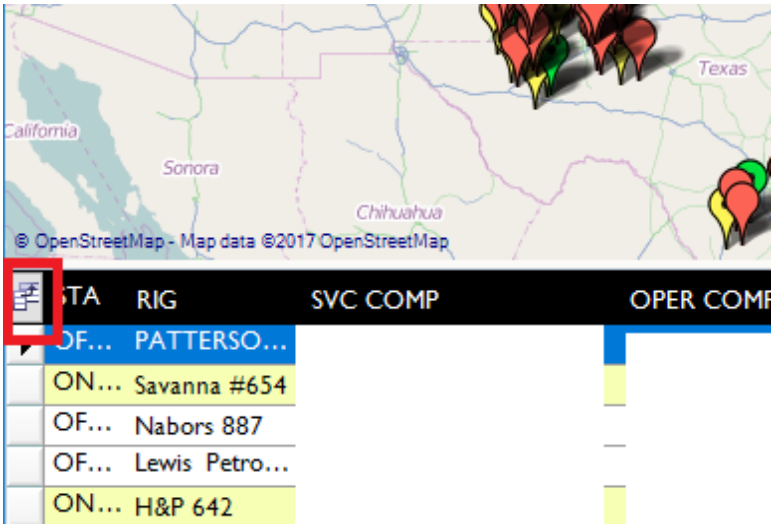


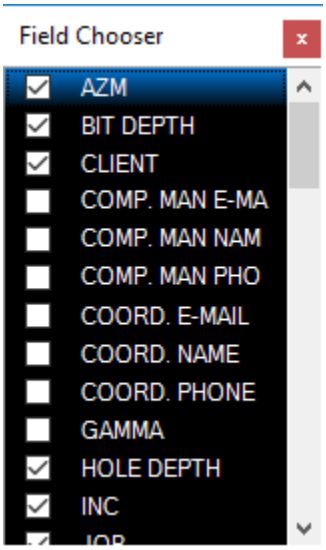
Figure 12 - Viewing the Command Center dashboard

Selecting the columns displayed in the grid

To change the columns displayed in the grid, click on the “Column Chooser” button at the top left of the grid.



The column chooser allows you to choose which fields are hidden or displayed.

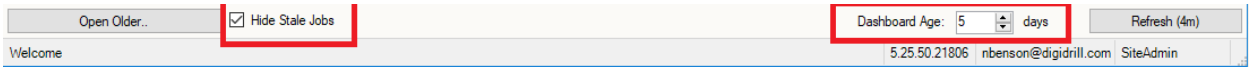


The columns that are “checked” are being displayed, those that are not are being hidden.

Changing the display status of stale wells

The dashboard has the ability to show or hide stale wells, as well as allowing the user to choose how many days a well has to be stale before it no longer displays.

To show or hide stale wells, check or uncheck the box “Show Stale”. To change the number of days a well is to be stale before showing in the dashboard, adjust the number next to “Dashboard Age”.



Forcing an immediate refresh of the dashboard

The dashboard automatically updates values in real-time, and periodically updates the well list. To force an update of all wells and values, click the “Refresh” button. The button label displays the number of minutes since the last automatic refresh. By default, the well list refreshes every 10 minutes, while the values displayed in the list update every few seconds.

Opening older wells not displayed on the dashboard

By default, wells are archived on the server for 6 months. To access an older well that no longer displays on the dashboard, click on the “Open Older…” button. This will present a list of all wells archived in the system that the user has access to.

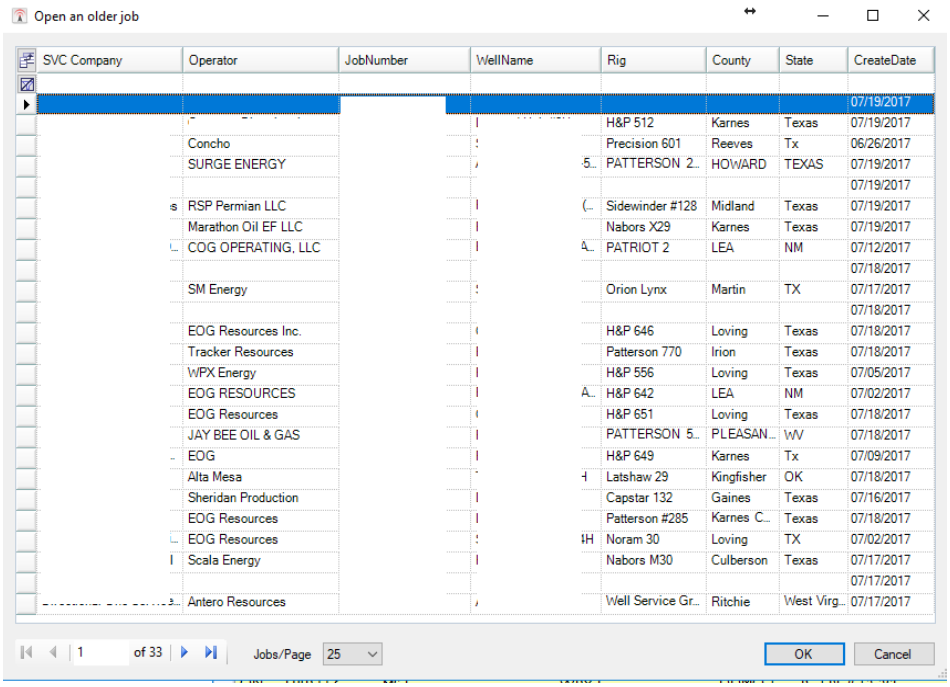


Figure 13 - Accessing archived wells in Command Center

To open a well, double click on it in the list. This will open the well in the real-time view which allows for viewing the log data, etc.

Opening a well from the dashboard

Double-click on the well in the list. This will open the well in the real-time display allowing access to the log data, surveys, etc.

Functional Areas of the Real-Time Display

The real-time view is the main view for the application. It allows access to all of the functionality related to job monitoring and data management.

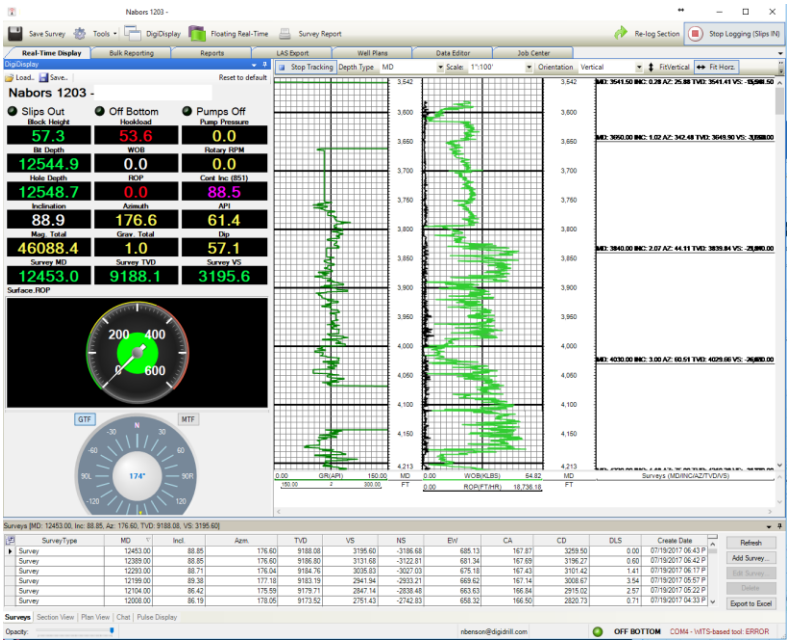


Figure 14 - The Command Center real-time view

The Real-Time View

The real-time display has three main areas.

1) The real-time gauges
   The real-time gauges display data as it comes in via the real-time stream. This data updates approximately every 5 seconds. Each gauge can be configured using different style, pointed at different curves, and have alarms set on them. Templates can be saved and loaded.

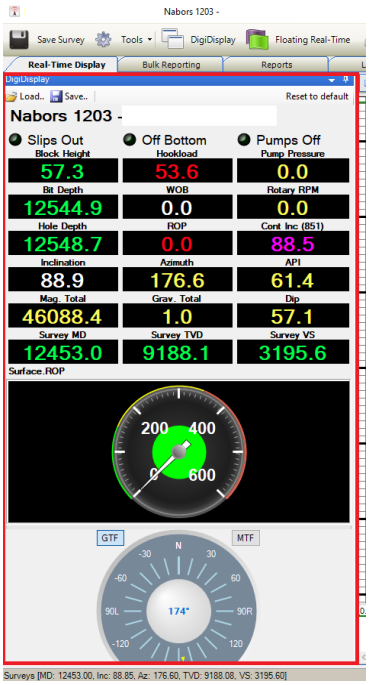


Figure 15 – The real-time view gauges

2) The real-time plot

The real-time plot shows curves, fills, markers, and user annotations. Also supported are images based on azimuthal gamma data (when available). The plot area allows for automatic tracking of the data, changing the depth type (MD/TVD/VS/Time), changing the scale, orientation (vertical/horizontal), as well as many other options including printing. Templates can be loaded or saved from here as well.

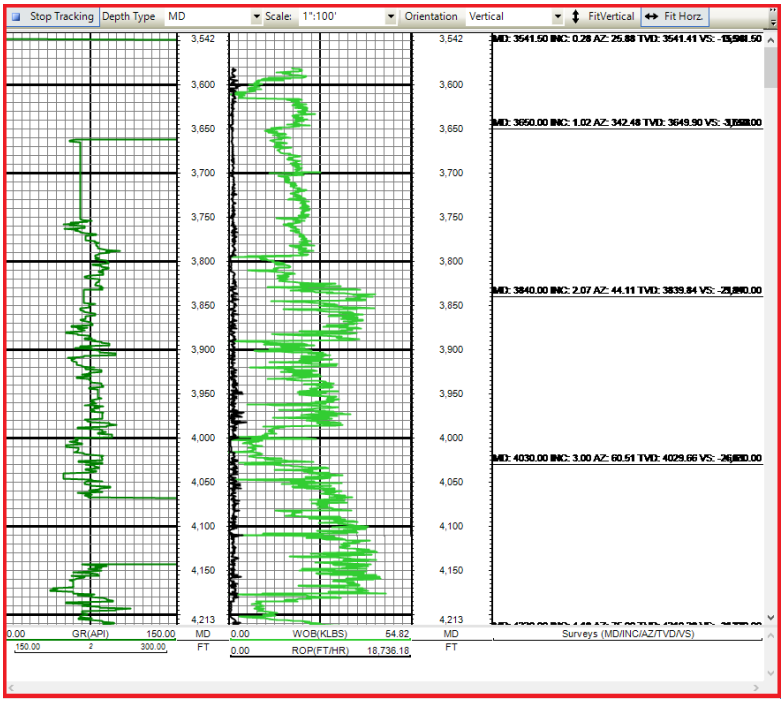
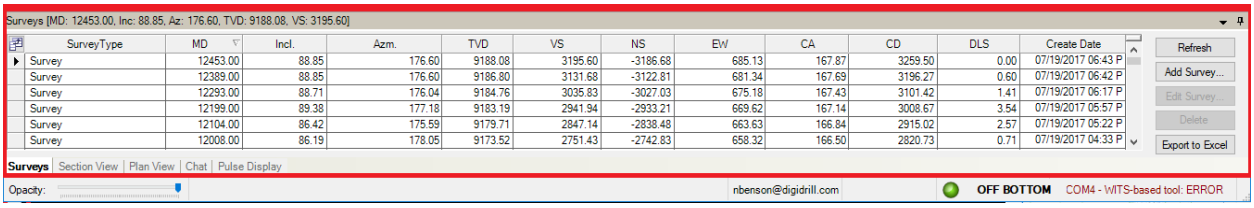


Figure 16 - The real-time view plot area

3) The survey window

The survey window shows the surveys for the currently active track. It allows users with the proper permissions to add, delete, or change surveys as required. It also allows a direct export to Excel workbook. Also available as a tab here is the Chat window, as well as quick plots of the wellbore. The status bar is located directly below it and shows the name of the current user, the well status (on/off bottom/stale) as well as any communication errors reported from the field software.



Using the real-time gauges (DigiDisplay)

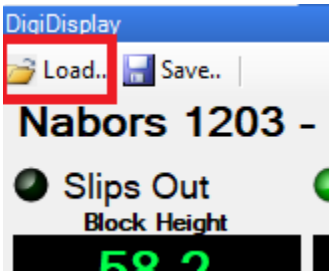
The real-time gauges are fully configurable.

Loading and Saving Gauge Templates

The configuration and layout of the gauges can be saved to a template and loaded on a different computer, or for a different well. The alarms, curves, etc. are stored and are applied to whatever well the template is loaded against.

Loading a Template

Click on the “Load button”. You will be prompted to select the template file you wish to load.

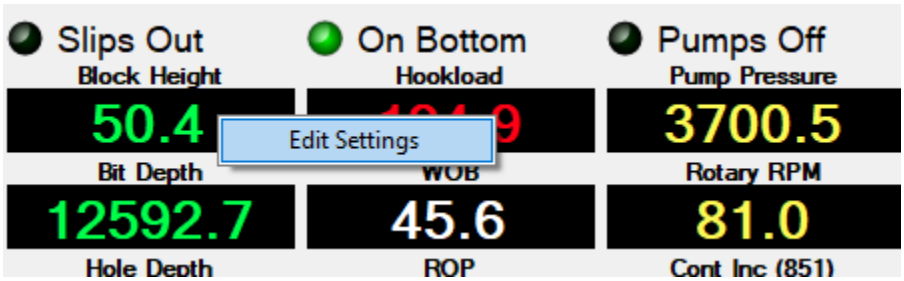


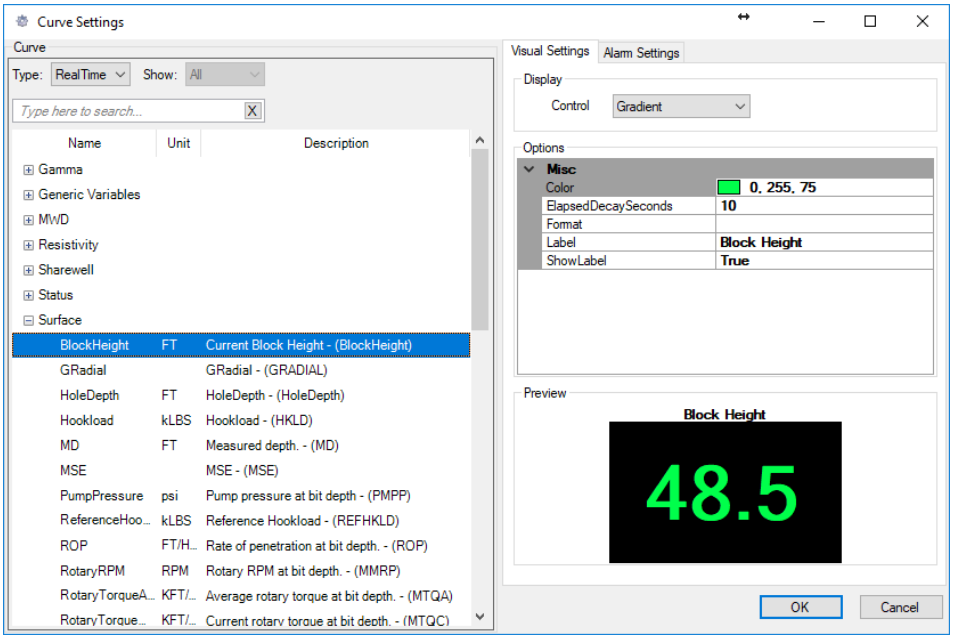
Saving a template

Click on the “Save” button, you will be prompted to select the filename for the saved template.

Changing Gauge Settings

Right-click on the gauge you wish to modify. Select “Edit Settings”. This will bring up the settings dialog.





The left hand side of the dialog displays the available curves as well as the type of curve to display.

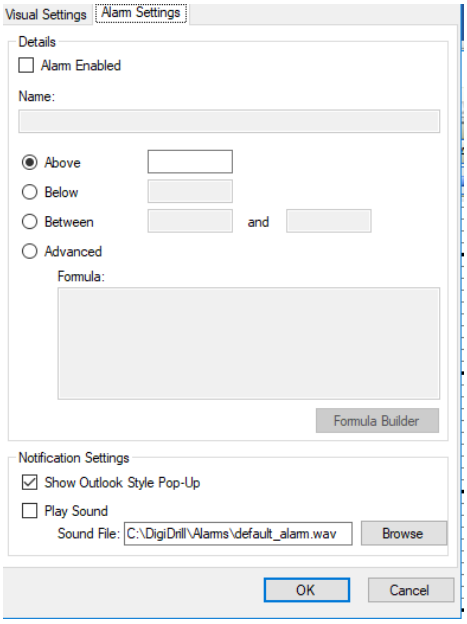
In order to display real-time streaming data select “RealTime”. To display the last value recorded in the field, select “Log”. Select the curve you wish to display by clicking on it.

Visual Settings

The “Visual Settings” tab allows you to choose the style of display (text, seven-segment, gauge) as well as change the visual settings for it. You can change colors, show/hide curve name labels, etc.

Alarm Settings

The “Alarm Settings” tab allows you to change alarm settings.



From here you can enable or disable the alarm for this gauge, as well as change the settings related to when it fires, and what kind of notification it provides.

Alarm Triggers

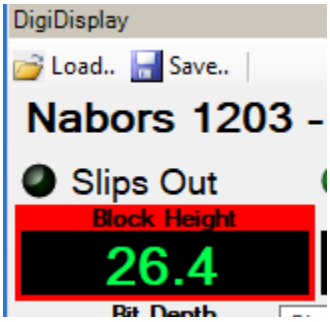
The triggers allow for:

- Above
  Fire when the real-time value is above the entered value
- Below
  Fire when the real-time value is below the entered value
- Between
  Fire when the real-time value is between the entered values
- Advanced
  This allows the user to enter a formula using an Excel-like formula builder. We recommend you use the formula build by clicking the button. This shows what values are available as well as the functions. It will also validate the formula for the user before accepting it. For advanced users, you can enter the formula directly in the text box.

Alarm Notifications

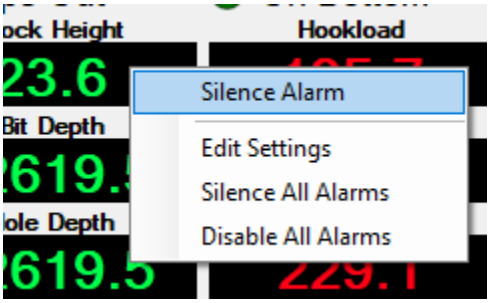
The Notifications Settings allow you to enable or disable outlook-style popups for the alarm. If triggered, a popup will display. If you click on the pop-up it will bring the real-time window that generated the alarm to the front. Play sound allows you to configure a .WAV file to be played when the alarm fires. The sound will be played in a loop until the alarm is acknowledged.

When the alarm fires, the gauge will begin flashing red.



Silencing Alarms

To acknowledge/silence the alarm, right-click on the gauge and select “Silence Alarm”.

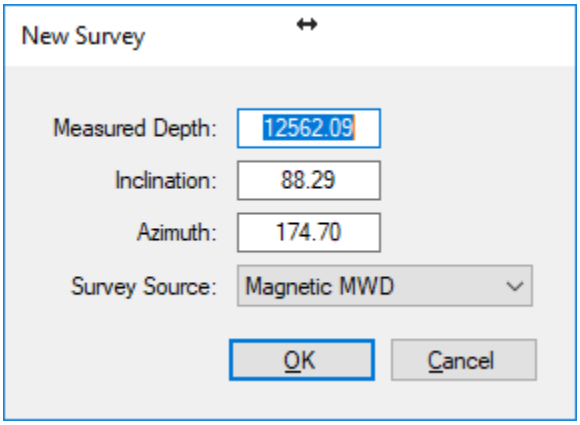


Using the Survey Display

The survey display allows users to view the surveys, and users with appropriate permissions to edit them. These changes are pushed back to the field computer and update the field database as well as the server.

Adding a new survey

Click on the “Add Survey” button. This will bring up the Add Survey dialog. Enter the appropriate MD, Inclination, and Azimuth. Optionally you can also specify the kind of survey instrument used.



Editing an existing survey

The edit an existing survey, double click on the survey in the grid. Or select it and click the “Edit” button. This provides the same dialog to edit the survey values.

Delete a survey

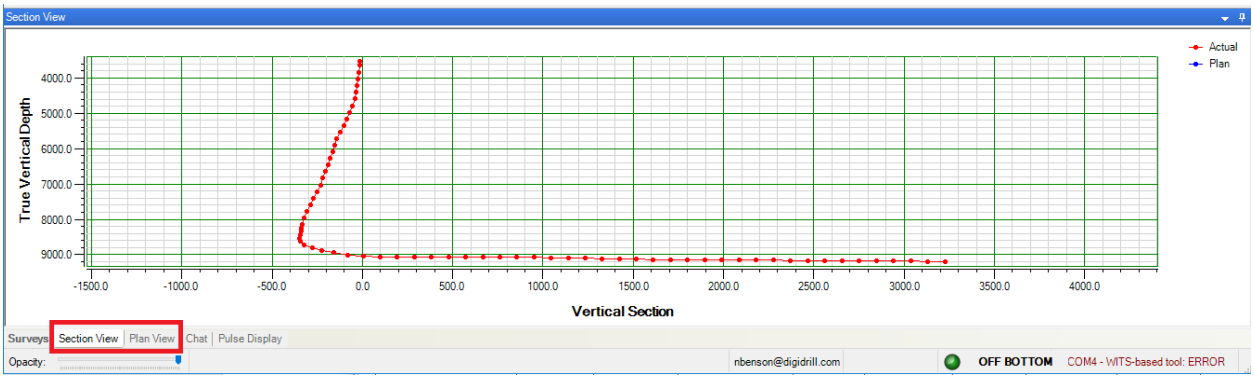
Select the survey in the grid, and click the “Delete” button.

Export to Excel

Click on the Export button. You will be prompted for a filename and type for the exported surveys (xls/xlsx).

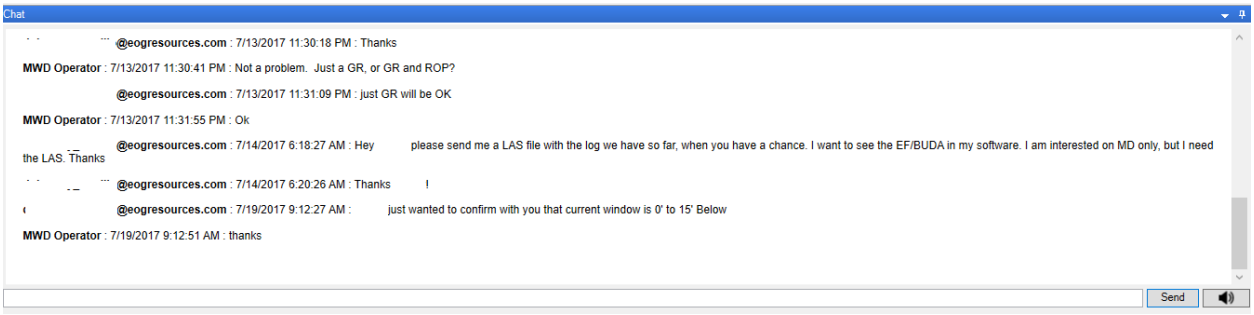
Survey quick plots

The quick plots show plan and section views of the surveys. To view on, click on its tab.



Using the chat/messaging functionality

The Command Center and DataLogger applications have a built-in secure chat/im feature. This allows users to broadcast messages to all other users of the current well. The history is preserved and users are notified when pop-ups and flashing of the tab.



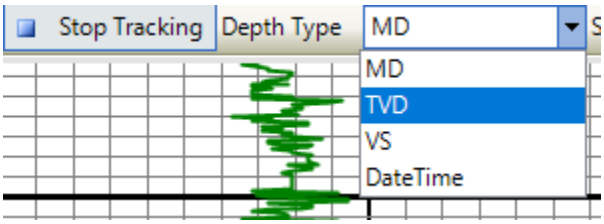
Using the Real-Time Plot

Configuring Display Settings

The real-time plot allows users to add curves, fills, and other visuals. These are updated in real-time.

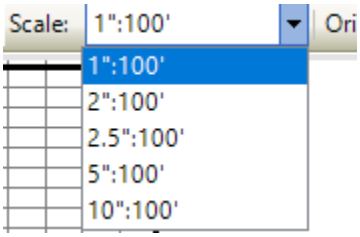
Depth Settings

The plot can be displayed in several different “depths”. The default is MD (measured depth), with the other options being TVD, VS, or DateTime. The change the depth used for the Y-Axis click on the “Depth Type” drop-down and select the desired depth.



Scale Settings

The plot allows for scaling. These scales represent the most commonly required scales for geosteering and geology. To change the scale, click on the “Scale” drop-down, and select the desired scale.



Display Orientation

The plot can be displayed oriented vertical (default), or horizontal. The horizontal display orients itself so that shallower or older data is on the left, and newer or deeper data is on the right.

To select the orientation, click on the “Orientation” drop-down and select the desired orientation.

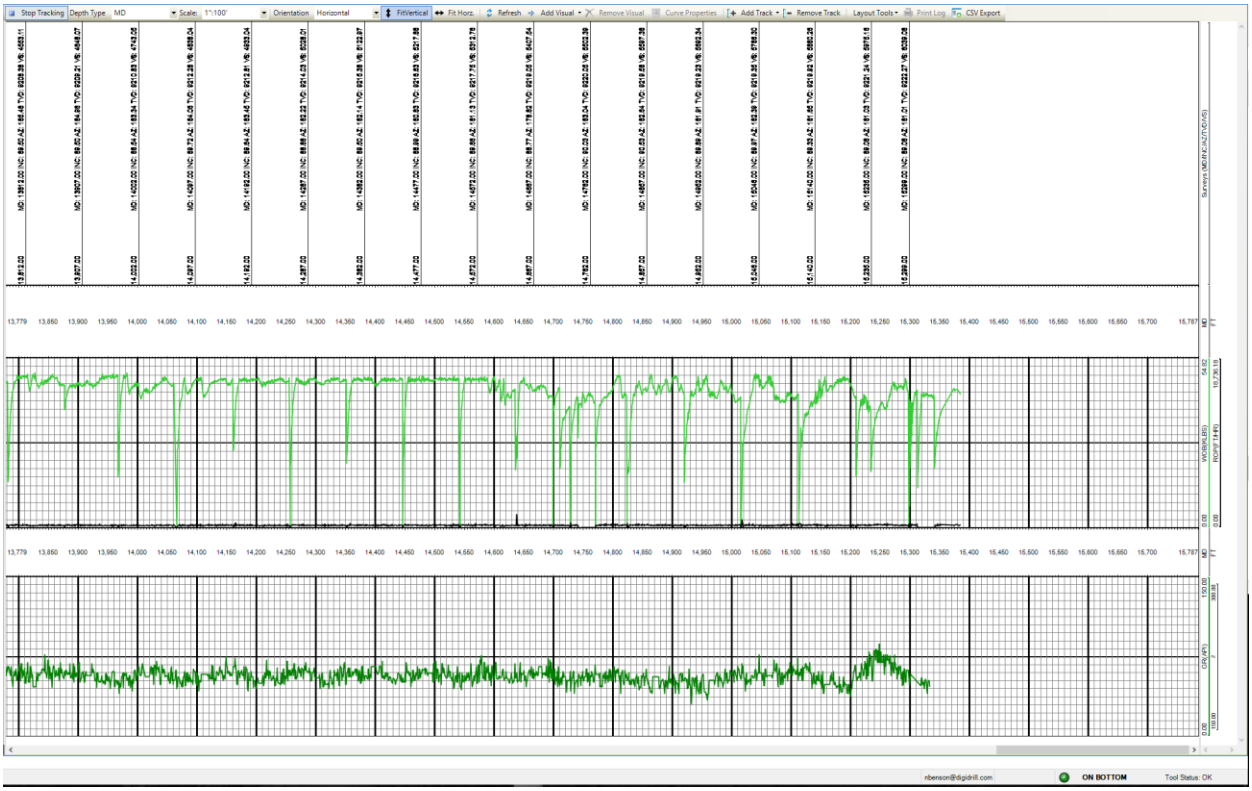


Figure 17 - The plot area using a horizontal orientation

Fit Vertical/Horizontal

The plot area can be configured to ignore scaling or fixed visual track widths and forced to fill the entire vertical or horizontal areas on screen. Both can be applied at the same time to force the plot to live entirely within its visible bounds on the screen. The enable either option (fit width is enabled by default), click on the appropriate button on the toolbar. To disable the option, simply click on the button again.

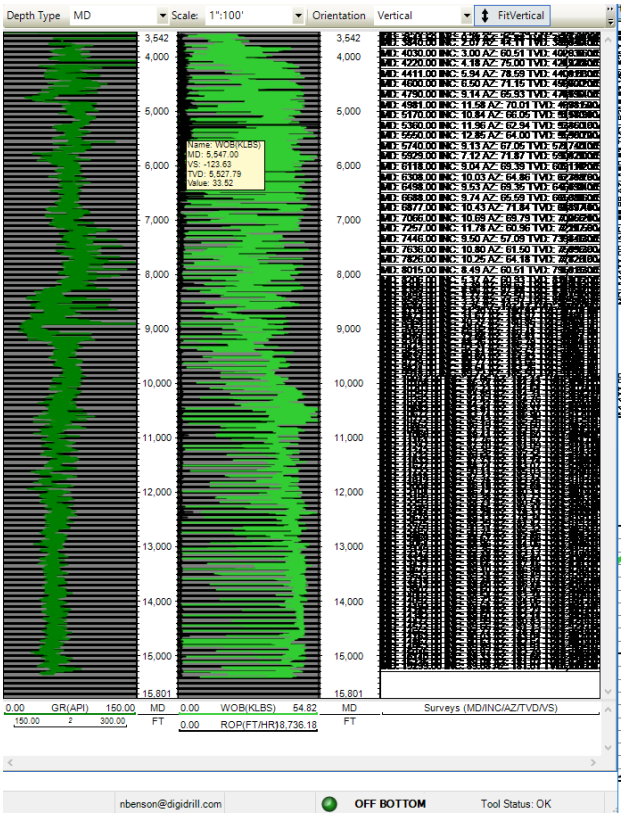


Figure 18 - The plot area with both Fit Vertical and Fit Horizontal enabled

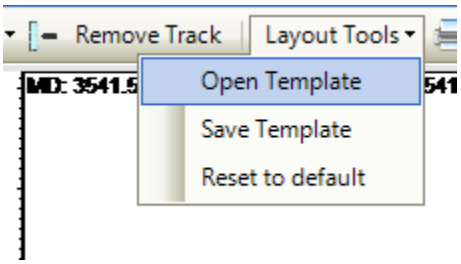
Loading and Saving Templates

The plot area allows users to create, save, and load templates for visual displays. These templates are compatible with DigiDrill LogViz and templates created in either application can be loaded in the other. So you can create a template with LogViz, and load it in the Command Center or the reverse.

These templates get stored as files on the filesystem with the extension ".lvtmpl". The templates store everything necessary to apply to any data source (any well). A template created on one well can be applied to any number of other wells.

Loading a Template

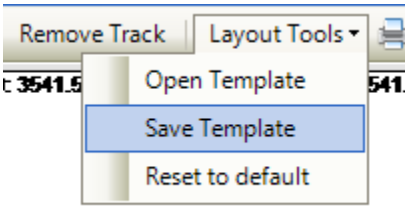
To load a template, locate the "Layout Tools" menu on the plot toolbar. Click on it to expand the menu, and select "Open Template".



You will be prompted to locate the template file you wish to load. Once you have done so, click “OK” and the template will be applied.

Saving a Template

To save a template, locate the “Layout Tools” menu on the plot toolbar. Click on it to expand the menu, and select “Save Template”.

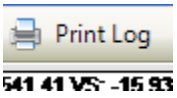


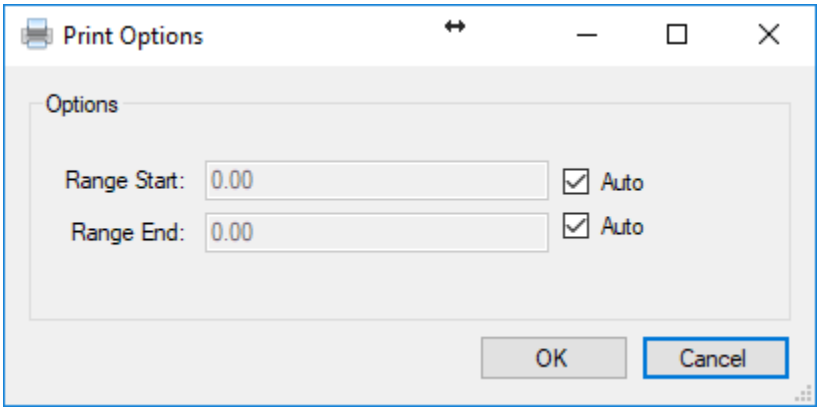
Resetting to the default template

From time to time it may be necessary to reset the view to the default template provided with the Command Center application. This will reset the visuals to the original, default layout and reload the data. To do this, locate the “Layout Tools” menu on the plot toolbar and click on “Reset to default”.

Printing Logs

Command Center has the ability to print logs (physical or to a PDF printer) directly from the real-time view. The user can choose to use automatic or manual (specified) depth or time ranges. The range type is based on the depth type used for the plot (depth-based or time-based).





Adding, Removing, Rearranging Visual Tracks and Their Properties

The plot supports several different visual types. Curves, fills, annotations, survey annotations, and images. Below is a description of how to add, remove, and modify these visuals.

The visual area of the plot is divided into “tracks”. Each track acts as a container for other visuals (curves, etc). Tracks can have their properties specified (grid lines, title, linear/log scale, etc) and they can be re-arranged. Tracks can also be added or removed.

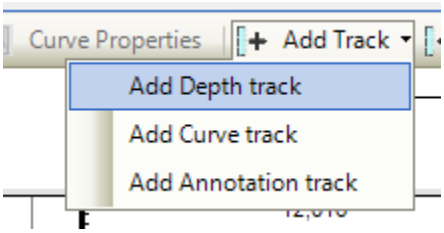
There are three types of tracks supported by the plot. These are pre-configured in a certain way, but **all** track types are capable of containing other visuals (curves, etc).

Adding a Track

There are three types of tracks supported by the plot:

- Curve
  This type of track is configured for displaying most normal curve data.
- Depth
  This type of track is used for displaying depth/time data
- Annotation
  This type of track comes without any markers, etc and is most useful for displaying survey or user annotations.

To add a new track, locate the “Add Track” button on the toolbar and click to expand it. You will then be prompted to choose the type of track you want to add.



Removing a Track

To remove a track, click on the track you wish to delete. This will highlight the track and mark it as selected.

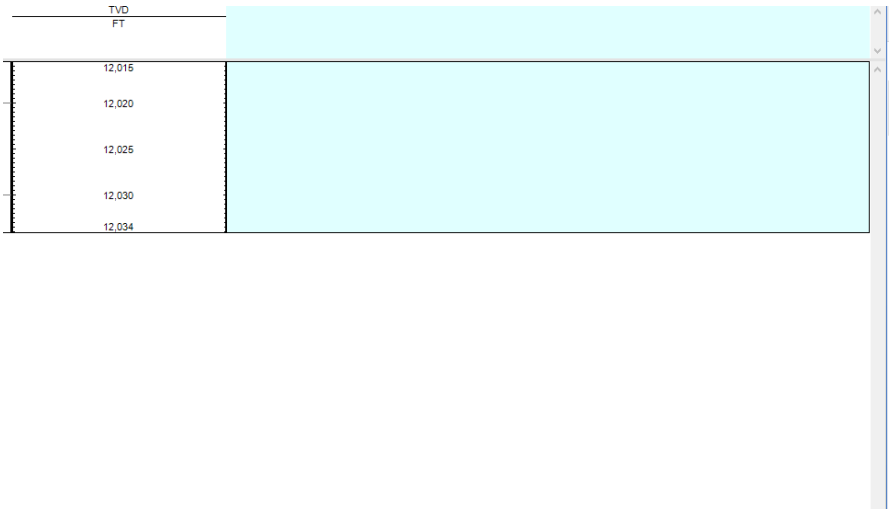
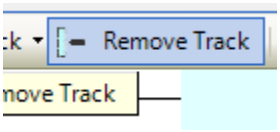


Figure 19 - The annotation track is being shown as selected

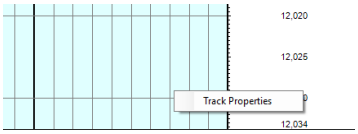
Once the track is selected, locate the “Remove Track” button on the toolbar and click it. If the track contains visuals, you will be prompted to confirm removal.



Changing Track Properties

Each track type has its own properties. Each individual track in a plot can have its own settings. To change the settings for a track you can:

- Right click on the track and select “Track Properties”



- Double click on the track to bring up the Track Properties dialog.

The track properties dialog has two forms, one for the depth track type, and one for all other track types.

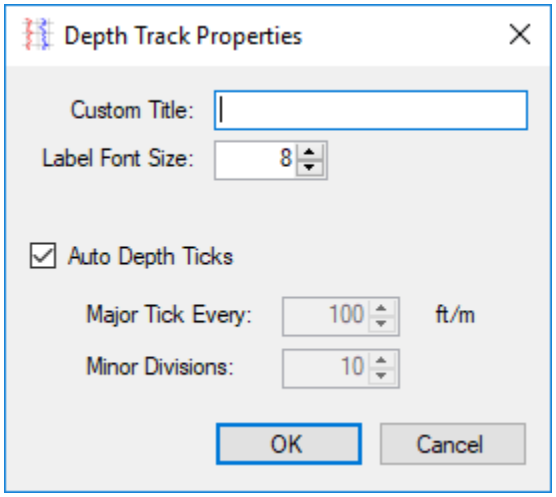


Figure 20 - The track properties dialog for a depth track

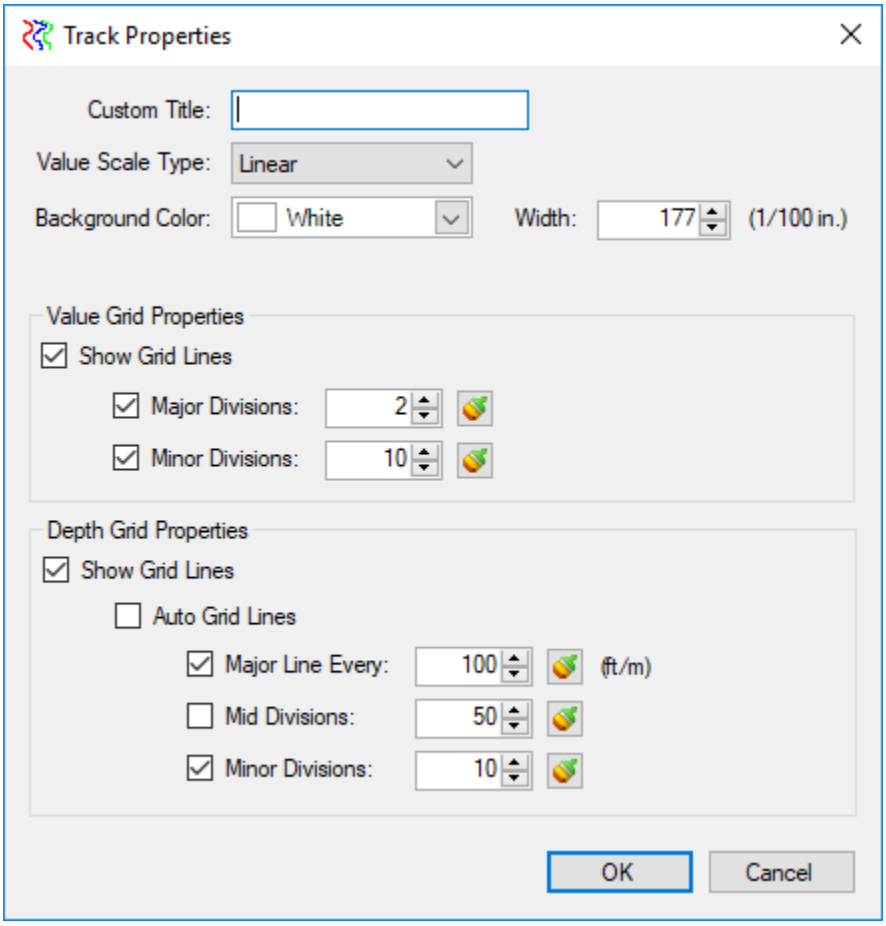


Figure 21 - The track properties dialog for all other curve and annotation tracks

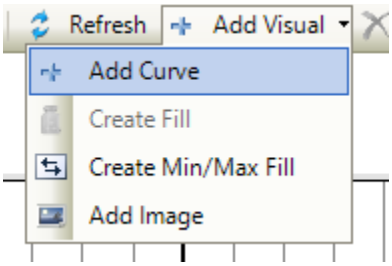
Tracks can be rearranged visually. Simply click on a track, and “drag” it with the mouse to the new desired location. This will move the track and all of its contents.

Adding, Removing, Rearranging Visuals (Curves, etc..) and Their Properties

Curves are the most common type of visual, and they support a variety of different properties. Smoothing, data markers, survey markers, block shifting, formulas, etc.

Adding Curves

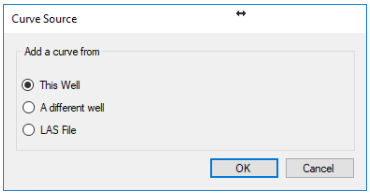
To add a new curve, click on the track that will contain it. Then, locate the “Add Visual” button on the toolbar. Click on it to expand it and select “Add Curve”.



You are then prompted to specify where this curve will come from. You can add curves from:

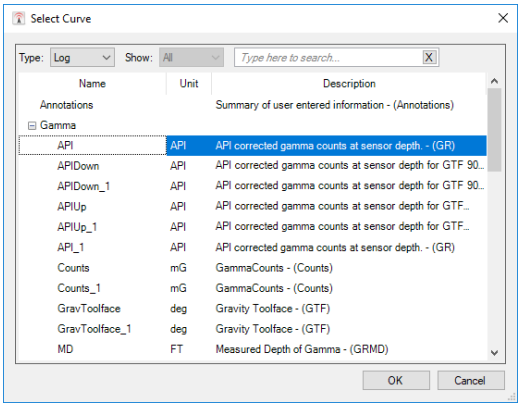
- The current well
- A different well on the server
- An LAS file

Choose the type of data you wish to add and click “OK”.



If you chose “A different well”, or “LAS file” you will be prompted to select the well or file that contains the data.

Once you have selected the location of the data, you will be shown the curve chooser. From here you can select which curve you wish to display.

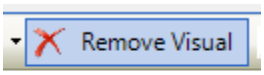


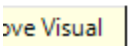
Select the desired curve and click “OK”.

Once the curve has been selected, you will be shown the “Curve Properties” dialog. Please refer to “Changing Curve Properties” for more information.

Removing Curves

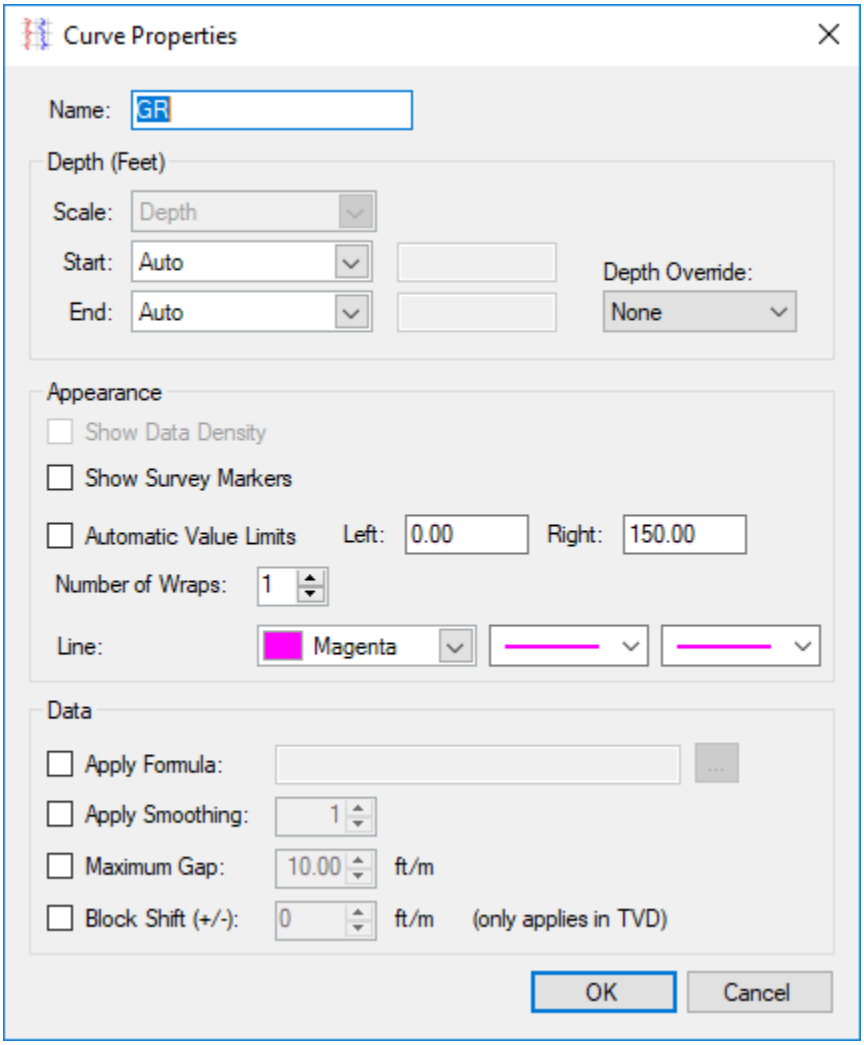
To remove a curve from the plot, first click on it to select it. Then locate the “Remove Visual” button on the toolbar and click on it. The curve will be removed.





Changing Curve Properties

The Curve Property dialog supports a number of options for changing the visual properties of a curve in a plot.



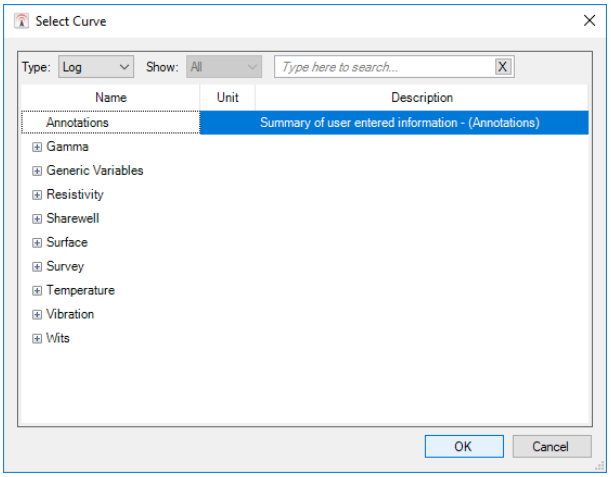
- Name
  This is the name shown in the header and footer of the plot area
- Start
  This is the start type of the log. It has several options
  - Tie-In
    Start plotting data from the MD of the tie-in survey
  - First Survey
    Start plotting data from the MD of the first survey that's not a tie-in
  - Auto
    Plot all available data
  - Manual
    Start depth is manually entered
- End
  - Last Survey
    Plot data through the MD of the last survey

  - Auto
    Plot all available data
  - Manual
    The stop depth is manually specified
- Depth Override
  This allows a curve to be plotted on a depth scale other than what the plot area is displaying. For example, you could configure the plot area to display on MD, but plot Gamma.API on TVD by setting its depth override to “TVD”.
- Show Data Density
  Shows small markers where the data was recorded rather than a full curve
- Show Survey Markers
  Shows small diamond markers overlaid on the curve at survey stations
- Automatic Value Limits
  When the box is checked, the curve is scaled to fill the width of the track. If it is unchecked, the curve will be clipped based on the left and right settings.
- Number of Wraps
  Chooses the number of wraps to apply to the curve. Wrapping points are determined by the right value limit.
- Line Settings
  Sets the color, width, and style of the curve on a per-wrap basis.
- Apply Formula
  Allow user to apply simple formulas to the curve data when it is displayed. The formulas have access to the MD, TVD, VS, Time, and Value of each curve point.
- Apply Smoothing
  Applies a moving average smoothing. The value selected represents the number of samples in the averaging window.
- Maximum Gap
  By default all gaps are filled. Enabling this option says “Fill gaps up to “XXX” but no larger”. So if the setting is 10, gaps of up to 10’ fill we filled, but anything larger will appear as a broken line.
- Block Shift
  This allows you to shift the curve shallower or deeper on TVD logs to aid in geographic correlations between current wells and offsets. Most useful for geosteering.

Adding Annotations

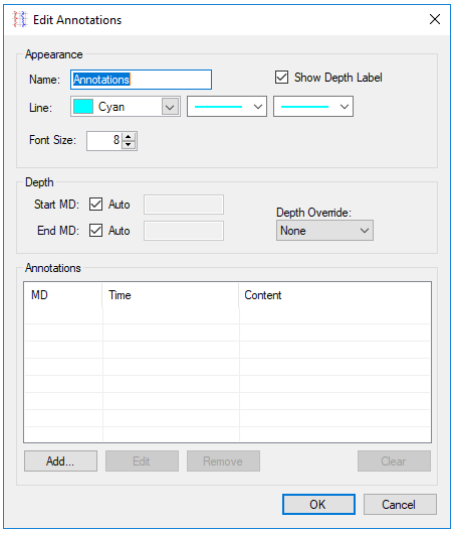
There are two types of annotations. There are built-in survey annotations, and user-entered annotations. Both types are added via the “Add Curve” option from the “Add Visuals” menu.

To add a user annotation, select Add Visuals -> Add Curve. When the curve chooser pops up, select “Annotations”.



Click “OK”.

The Annotation Editor dialog will appear and will allow you to add values, change the name, colors, etc.



Removing Annotations

To remove an annotation, click on it in the plot area to select it. Then click on “Remove Visual”.

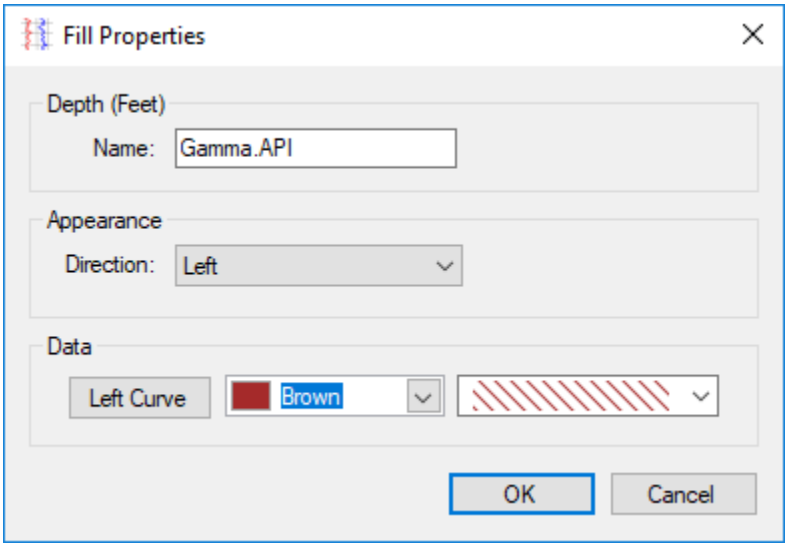
Changing Annotations Properties and Values

Double-click on the annotation in the plot area to bring up the Annotation Editor dialog.

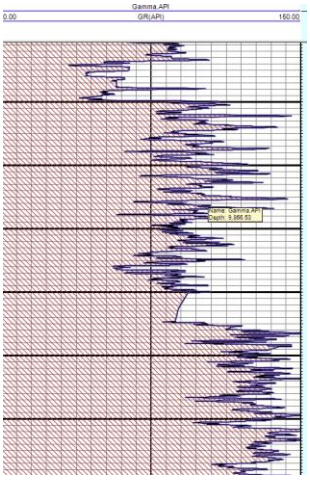
Adding Fills

Fills must be attached to a curve. The curve provides the “reference” line to fill against, and a normal fill will go from the curve to the left or right edge of the track containing track. Between fills require that two curves be selected and the fill applies between them.

To add a fill, first select one or two curves. Then locate “Add Visual” -> “Create Fill”.



From here you can change the name of the fill, choose whether it is left or right (fill to the left of the curve, or to the right of the curve) and change the color and hatch style of the fill.



Removing Fills

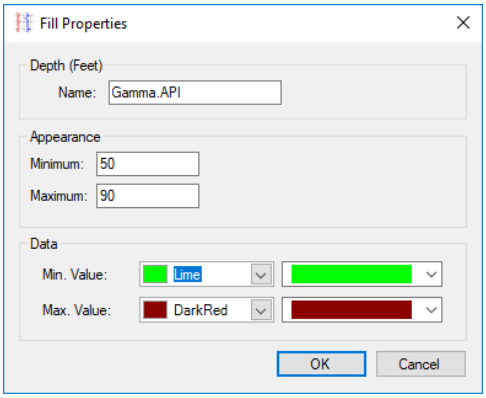
Click on the fill in the plot area to select it, and click “Remove Visual”.

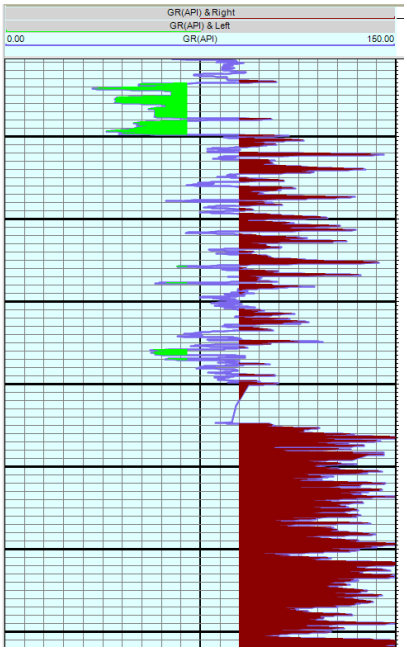
Changing Fill Properties

Double-click on the fill in the plot area to bring up the Fill Editor dialog.

Range Fills

Range fills are a special kind of “Min/Max” fill. A curve is selected as the reference line, and a minimum value and fill properties as well as a maximum value and fill properties are selected for it. The fill will apply to any section of the curve below the minimum or above the maximum.





The Job Center

The Job Center allows the user to remotely change settings related to the job including:

- Well header/job information
- Track information including survey offsets, logging intervals, etc.
- Gamma Setup information including scaling factors and gamma offset
- Adding/Removing tracks and gamma setups

Changing Job Properties

Adding and Removing Tracks

Adding and Removing Gamma Setups

The Data Editor

The Data Editor allows for editing data remotely. Users can add, remove, or change values. When these values are saved, they will be pushed to the field database as well as the server. The field database will be updated to reflect any changes made.

LAS Export

The LAS Export view allows users to export industry-standard LAS 2.0 and 3.0 files from data store in the LiveLog service. The LAS Export view contains a lot of functionality related to what data to export, how to handle cases like centering of points for fixed-step exports, and the formatting of the output data. It also allows the user to specify any custom formulas to be applied as well as any smoothing required. The exported data range can be selected manually, automatically (all data), or based on surveys (Tie-In, First, Last).

The Report View

The Report view contains several simple reports generated as PDF files. This includes the survey report.

Bulk Reports

Bulk Reporting allows the user to attach LAS and LogViz projects to be generated in bulk. Multiple templates of each type can be added and PDF or LAS files can be generated as a batch. Bulk Reporting also allows users to e-mail these generated files directly. This feature supports most e-mail providers providing SMTP. The e-mail body and subject lines can be customized to include static text as well as dynamically replaced values for curve or survey values, or job information.

Configuring Bulk Reporting

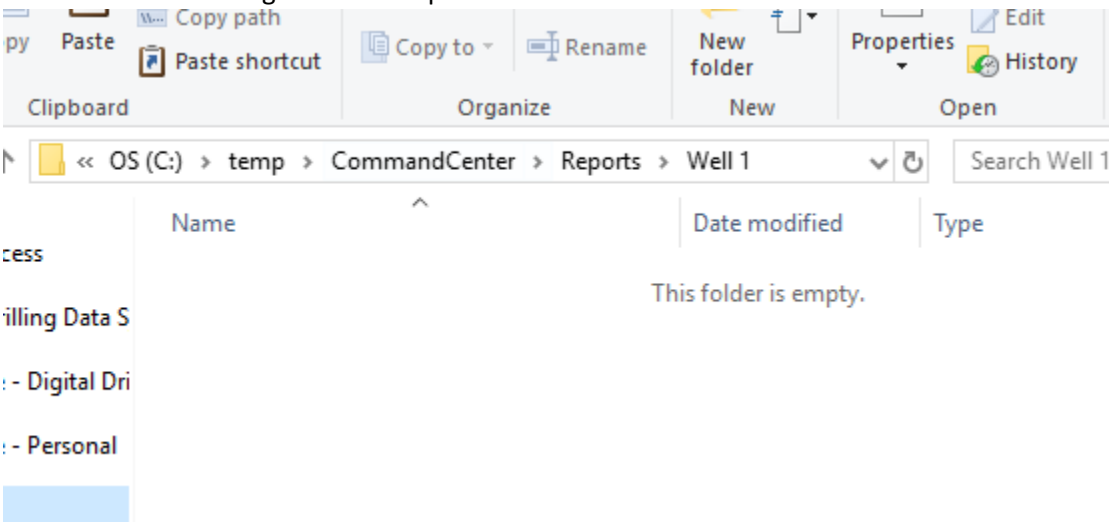
Configuring the Output Path

By default, all files generated by the bulk reporting feature get stored in “C:\DigiDrill\CommandCenter2\<JOBGUID>\Reports”. This is fine for normal usage, but if you wish to include additional files in your e-mail sent by Command Center it can be difficult to find the proper folder.

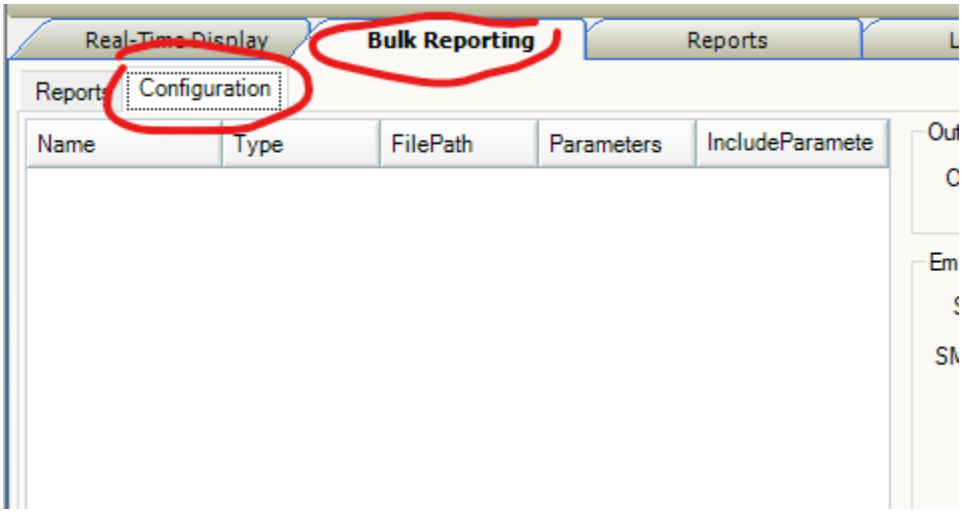
Bulk Reporting can have the output path (the location files are saved to when generated, and read from when sending e-mails) configured to a known location on a PER-WELL basis. This folder needs to be configured for each well it is used on if you wish to use a known location.

For example, if you wish to store the output to “C:\temp\CommandCenter\Reports\Well 1”

- Create the folder using Windows Explorer

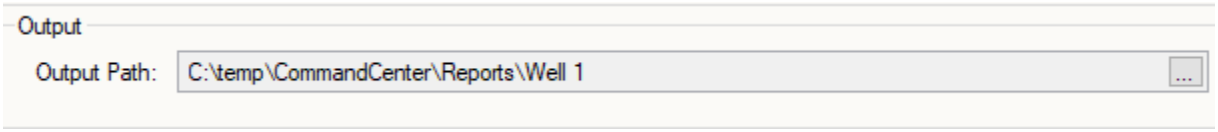


- Open the well in Command Center, and switch to the Bulk Reporting tab. Once there, select the “Configuration” tab



- On the Configuration tab, click the browse button located next to the “Output Path”

- Select the new output location



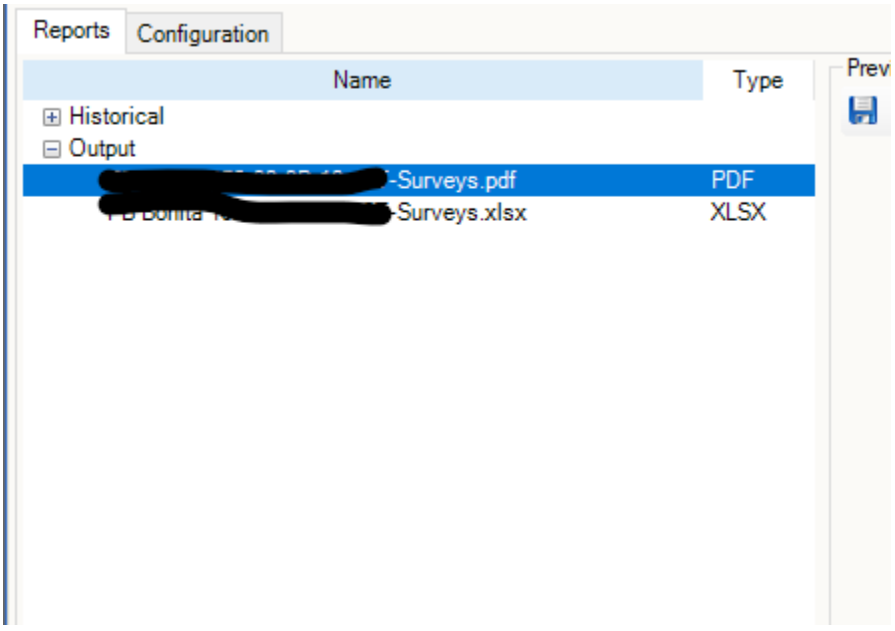
Once the output location is configured, you can easily locate this folder on the computer and even add additional files to be sent with any e-mails that are generated by the Command Center application.

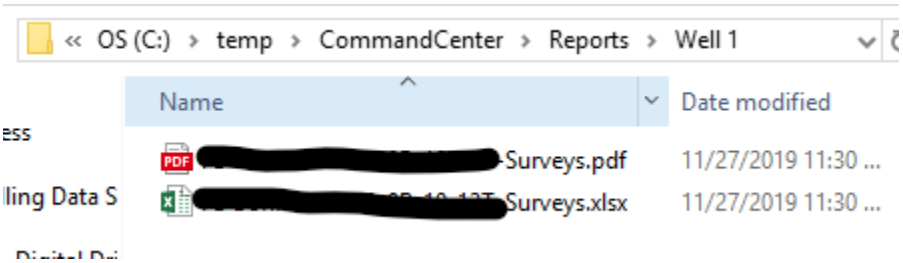
Including Additional Files with E-mail Deliverables

All files located in this output path will be attached to the e-mail that is sent, whether or not it is in the configured "project" list. This allows you to include any additional files you might want to include with your deliverables even if they are not generated with the Command Center application.

First, configure your e-mail settings, the output path, and add the projects you will be generating to the projects list in Bulk Reporting.

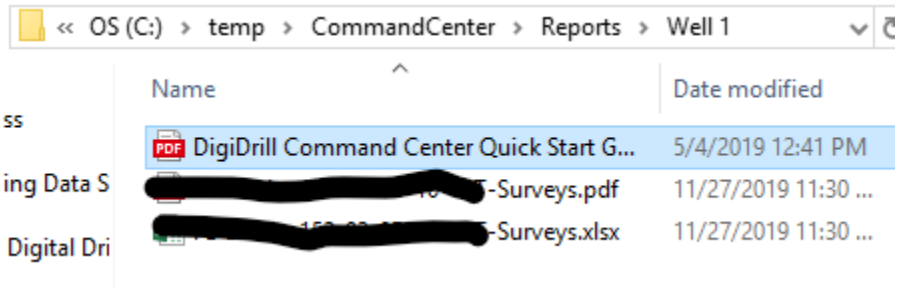
Once configured, generate the reports and verify that they are being stored in the correct location.



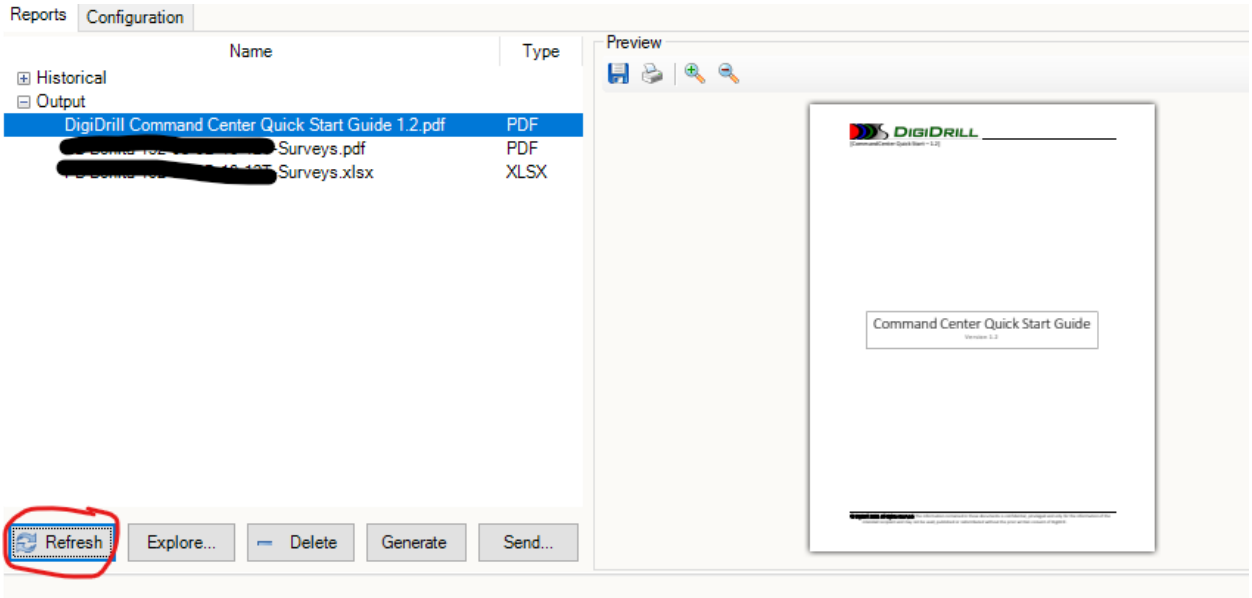


Now that the new storage location for this well has been verified, you can copy any files you want into this folder and they will appear in the Bulk Reports "Output" Window when you click the "Refresh" button.

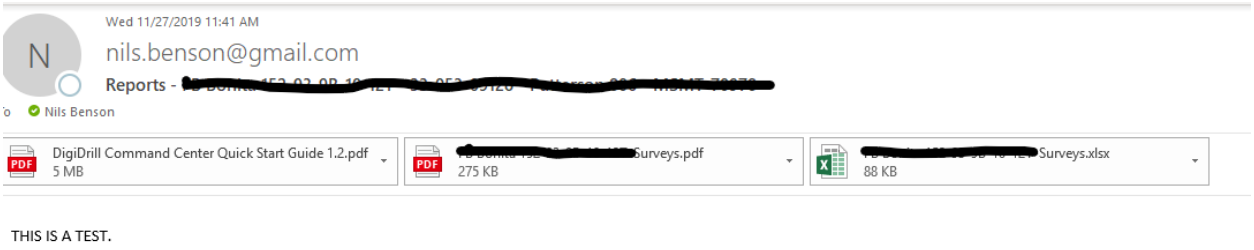
Here, we have copied the Command Center quick start PDF to the output path so we can send it in an e-mail.



After the file has been copied to the folder, just click the "Refresh" button in Bulk Reports and it will be displayed in the output list.



Now, when the e-mail is sent, this file will be included as an attachment.



Other Functionality and Features

The Floating Real-Time Window

The floating real-time window is simply a minimal display of the real-time plot. Templates can be loaded and saved and it otherwise acts just like the normal plot area of the real-time display. The biggest difference is that it has minimal toolbars and other "chrome" to maximize the space for displaying log data.

The DigiDisplay

The DigiDisplay works like the real-time gauges on the real-time view. However, it allows the user to customize the number of rows and columns available for gauges, as well as allowing for multiple tabs of gauge sets to be created. Templates created with the DigiDisplay can be loaded in the real-time view as well.

Importing Data

Command Center can import LAS and CSV files directly into the LiveLog server. This data will not be pushed down to the aggregator on the rig, and will only be available on the server.

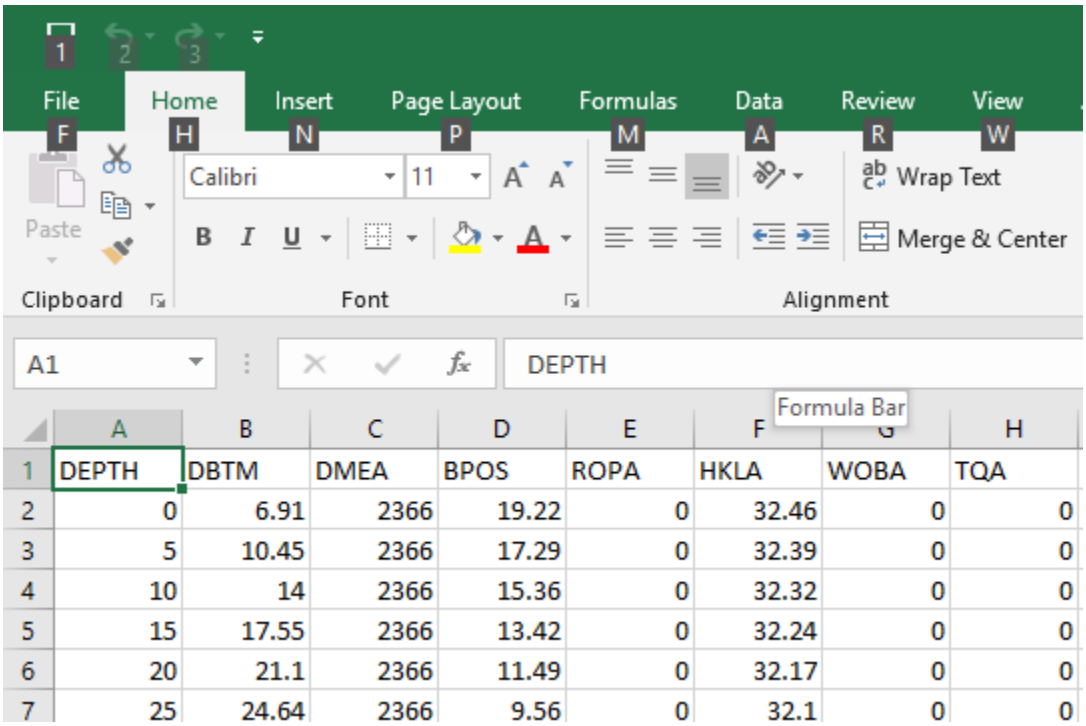
Notes:

CSV files are preferred, but most LAS files can be accepted. If the LAS file has mnemonics that have "." In the name, this should be changed to remove the "." Or the processing the file will fail.

It is required that there are no duplicate column names in the CSV files. Each column header must have a unique name.

It is required that there be no rows of data before the column header, and there be no extra rows (empty or with other data) between the column header and the data rows.

CSV files should look similar to this – no extra rows before the header, or between the header and data.

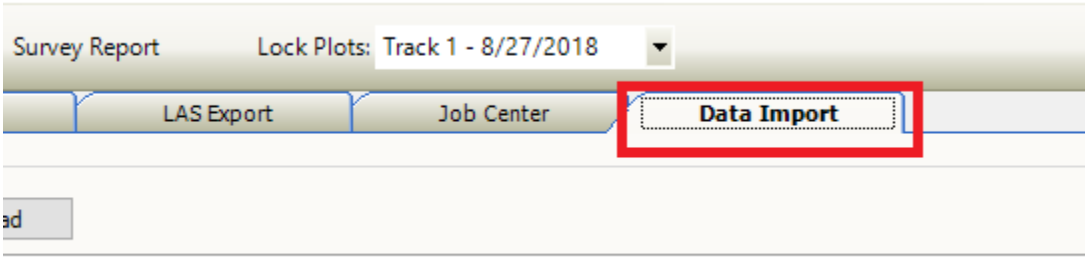


	A	B	C	D	E	F	G	H
1	DEPTH	DBTM	DMEA	BPOS	ROPA	HKLA	WOBA	TQA
2	0	6.91	2366	19.22	0	32.46	0	0
3	5	10.45	2366	17.29	0	32.39	0	0
4	10	14	2366	15.36	0	32.32	0	0
5	15	17.55	2366	13.42	0	32.24	0	0
6	20	21.1	2366	11.49	0	32.17	0	0
7	25	24.64	2366	9.56	0	32.1	0	0

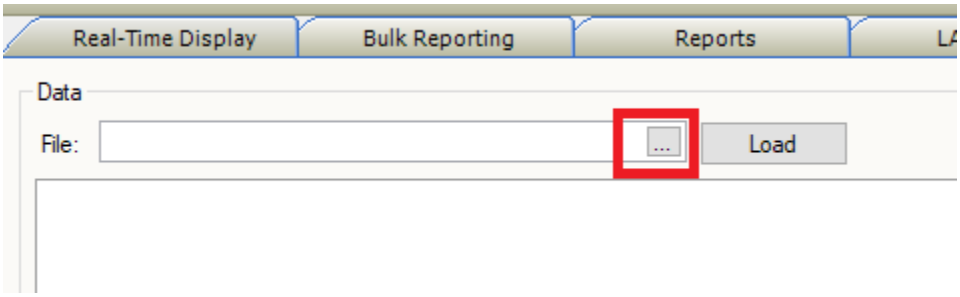
If only a subset of the data is to be imported, it is recommended that the file be edited in Excel or a text editor first to remove all the extra data. The import process will import the entire contents of the file, so any extra data that is not required should be removed first.

1. Open the well in Command Center
   From the dashboard or the archive ("Older Jobs") list open the well.

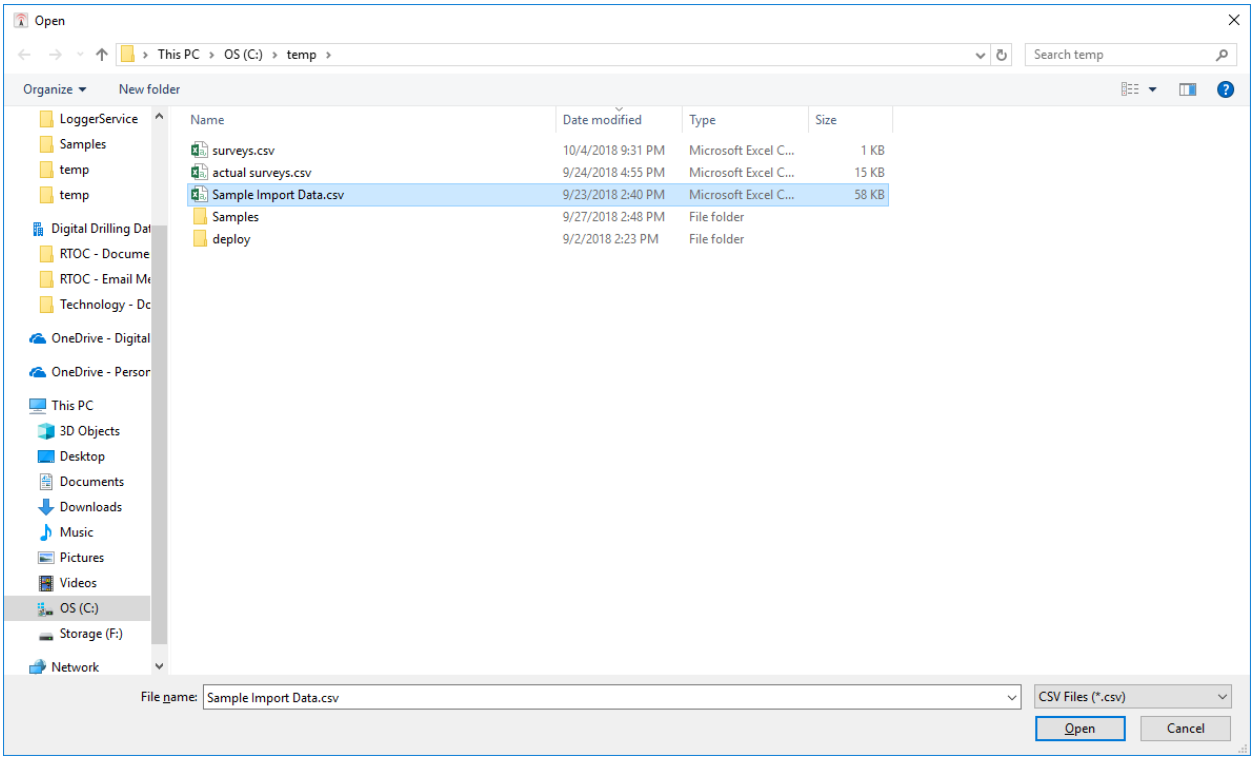
2. Switch to the "Data Import" tab



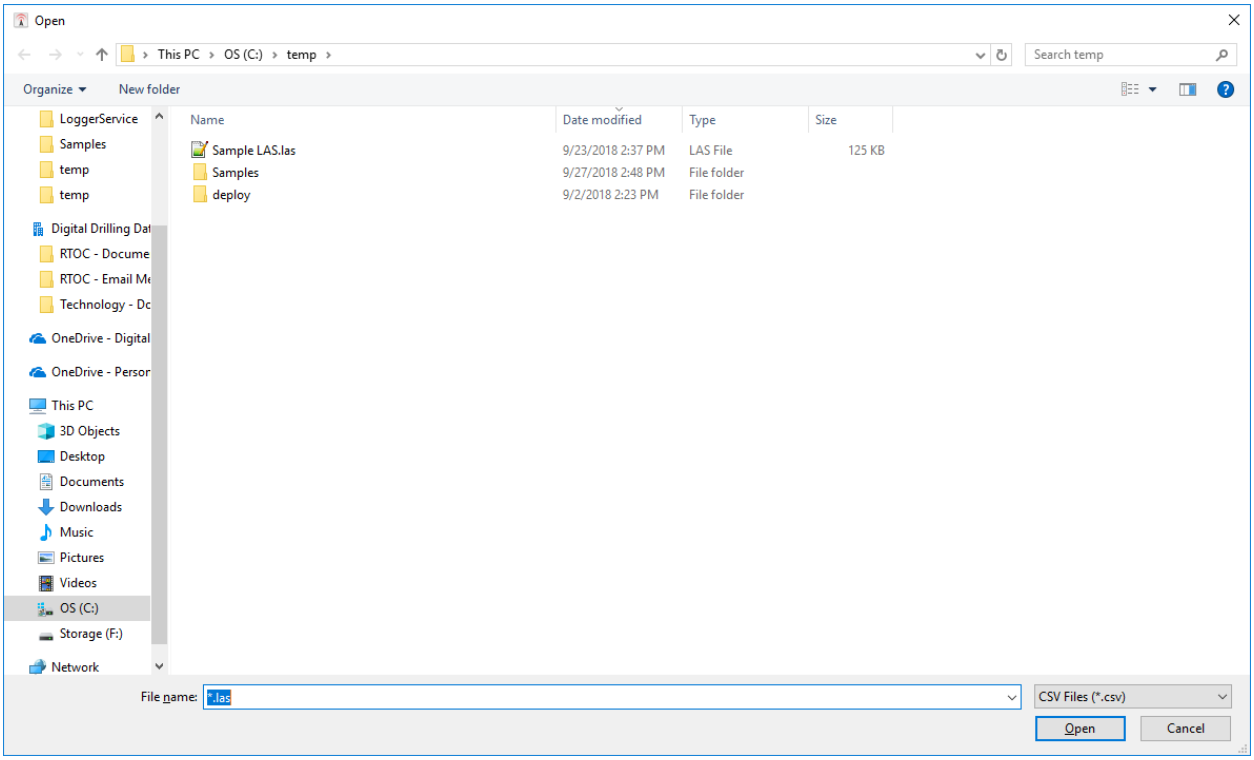
3. Load the CSV/LAS file
   To load the data file, click on the "…" button to browse for the file.



The default file type for import is CSV.

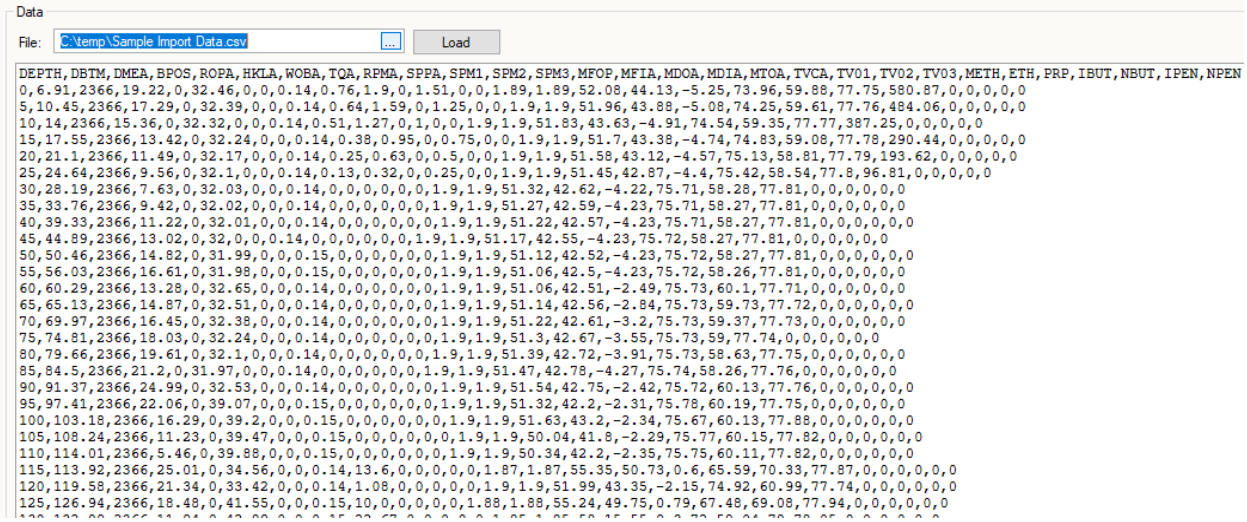


To change the filter to show LAS files, type “*.las” in the “File Name” box and press enter.



Once the file has been selected, click “Open”.

The file will be opened and the contents will be displayed in the preview window.



4. Map the file contents to the server curves

   Once the data has been loaded, you must map the curves contained in the file to the server curves.

The import supports both time and depth data. You cannot continue until you have selected the mapping for either the time or the depth index.

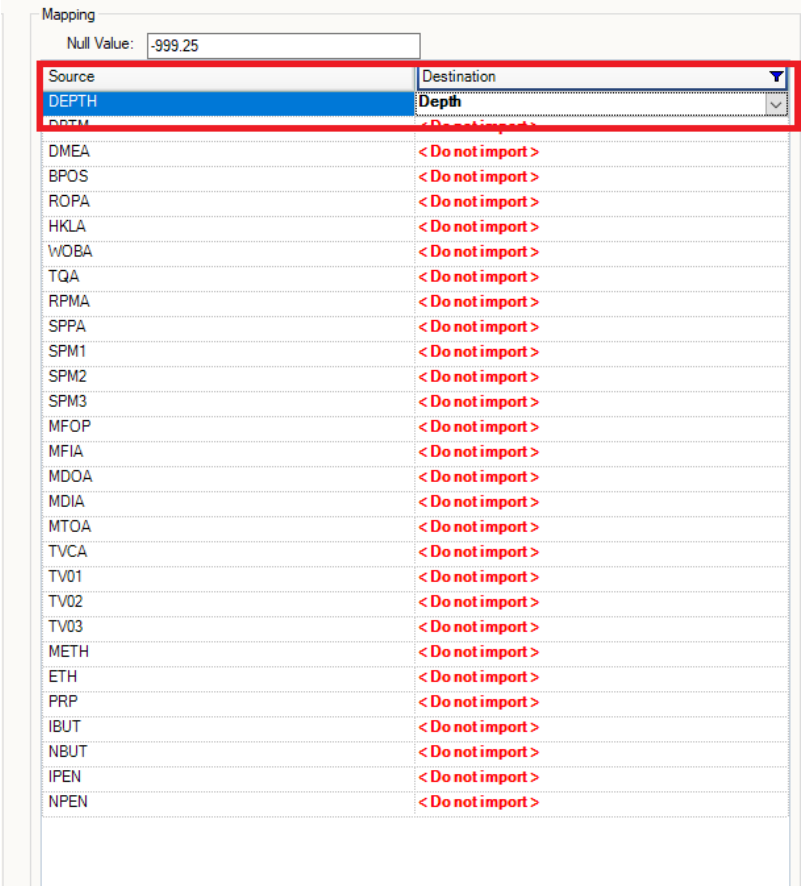
There are three index types:
Date
Time
DateTime

Date and Time must be used together. If you have two columns (one representing the date, and one representing the time) you must map both columns.

DateTime is used when there is a single column representing both the date and the time.

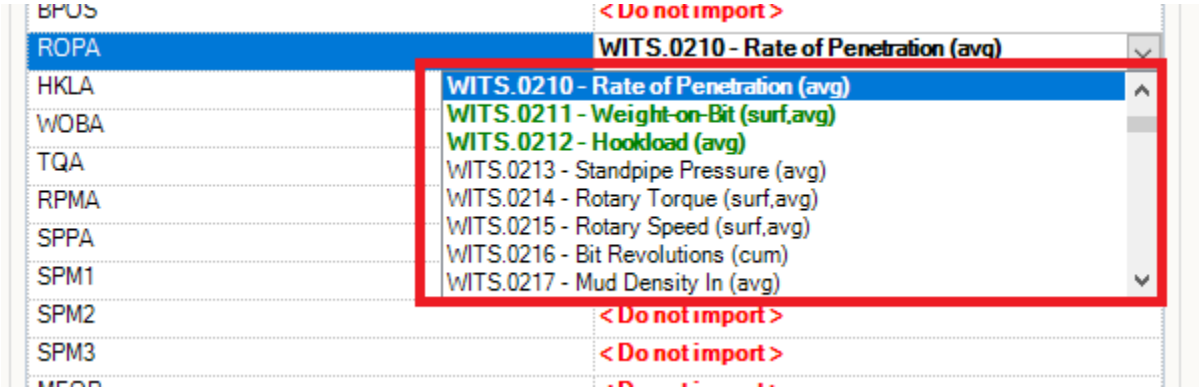
The date and time formats supported are anything that can be processed by the .NET DateTime.Parse() method.

In this example we are importing depth data, so we will map the depth column to the depth index for the import.

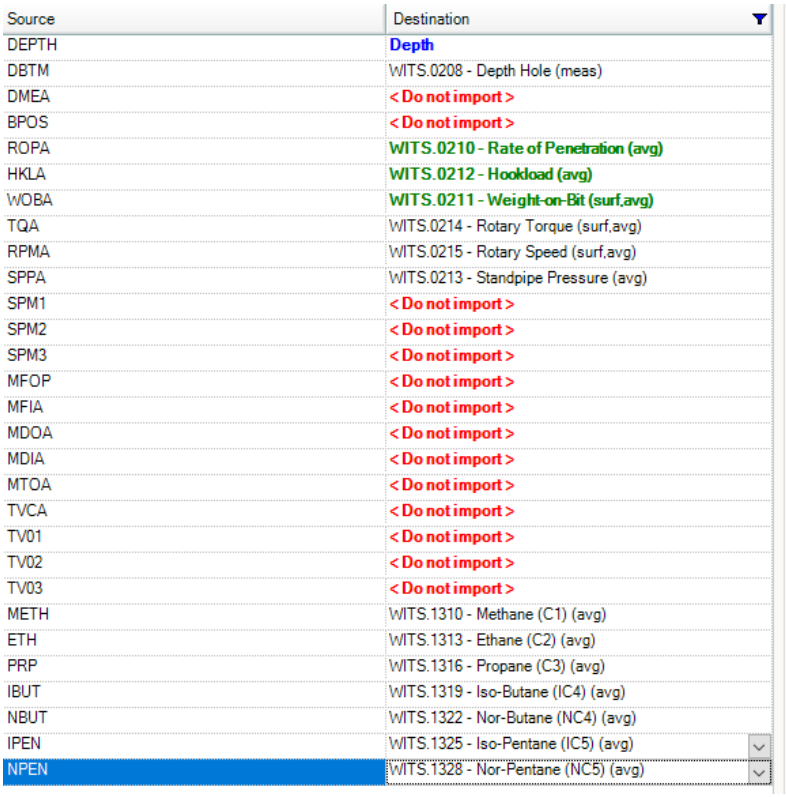


Proceed to map the rest of the columns as appropriate. It may be necessary to contact the field crew to determine which curves in the data file map to the appropriate WITS curves for importing the data.

Please note that curves that are colored green have data in the database. This can make it easier to determine which curve to use when there are many for the same value. Also note that depth-based imports should only happen to depth-based WITS groups (02, 13, 08, …). Time based curves should only be imported to time-based groups (01, 12, …).



Map all of the curves that need to be imported.



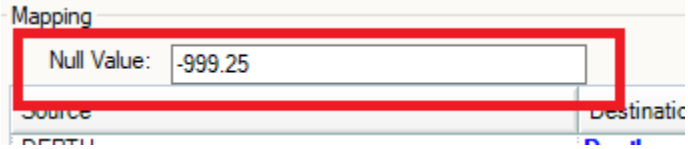
Source	Destination
DEPTH	Depth
DBTM	WITS.0208 - Depth Hole (meas)
DMEA	< Do not import >
BPOS	< Do not import >
ROPA	WITS.0210 - Rate of Penetration (avg)
HKLA	WITS.0212 - Hookload (avg)
WOBA	WITS.0211 - Weight-on-Bit (surf,avg)
TQA	WITS.0214 - Rotary Torque (surf,avg)
RPMA	WITS.0215 - Rotary Speed (surf,avg)
SPPA	WITS.0213 - Standpipe Pressure (avg)
SPM1	< Do not import >
SPM2	< Do not import >
SPM3	< Do not import >
MFOP	< Do not import >
MFIA	< Do not import >
MDOA	< Do not import >
MDIA	< Do not import >
MTOA	< Do not import >
TVCA	< Do not import >
TV01	< Do not import >
TV02	< Do not import >
TV03	< Do not import >
METH	WITS.1310 - Methane (C1) (avg)
ETH	WITS.1313 - Ethane (C2) (avg)
PRP	WITS.1316 - Propane (C3) (avg)
IBUT	WITS.1319 - Iso-Butane (IC4) (avg)
NBUT	WITS.1322 - Nor-Butane (NC4) (avg)
IPEN	WITS.1325 - Iso-Pentane (IC5) (avg)
NPEN	WITS.1328 - Nor-Pentane (NC5) (avg)

5. Set the NULL value

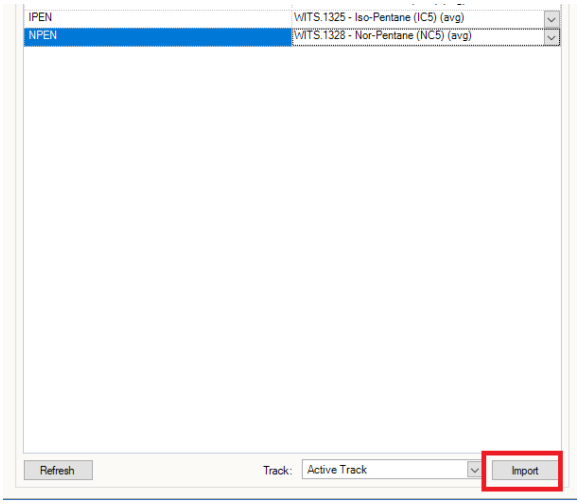
   It is important to set the correct NULL value. We do not want to import “null” data into the system. For an LAS file, you can check the file header. For a CSV file you must check the data to see what is being used as NULL.

   Typical values are:
   -999.25
   -9999.00
   -9999
   -999.2500

   The value set here must match EXACTLY what is used in the data file.



6. Import the data



   Click the “Import” button. This will process the data and import it into the server.

   Once the data is imported, a dialog will tell you how many records were imported.