DigiTrak Falcon LWD 3.0 Quick Start Guide

Introduction

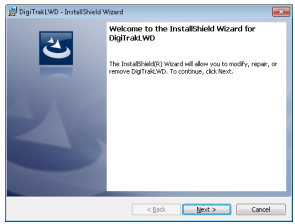
DigiTrak Log-While-Drilling (LWD) 3.0 software is compatible with currently-supported Microsoft® Windows® operating systems. The LWD Kit includes two USB devices:

LWD USB flash drive Software, drivers, manuals, and sample data

Bluetooth USB radio Bluegiga mini-Falcon for Bluetooth connection to PC

The DataLog system on a Falcon F5 receiver records depth, pitch, elevation change, and fluid pressure data. Use LWD 3.0 software on your computer to import this data and display, annotate, and create drill logs and graphs.

Install Drivers and Software



1. Insert the mini-Falcon Bluetooth USB radio into a USB port. Drivers will normally install automatically from the internet.
2. To install drivers manually, insert the flash drive in another USB port and open the **BLED 112 Drivers** folder, and follow the instructions on the readme PDF.
3. In the **Falcon F5 LWD 3.x Software** folder, double-click the **setup** file to install LWD.
4. After installation, an LWD shortcut will appear on the desktop and in the Start menu.

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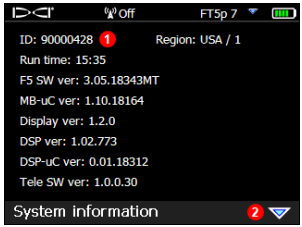
Prepare for Upload

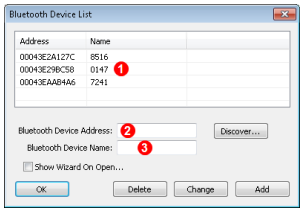
This is required for initial installation only.

1. From the receiver Main menu, open the System Info screen and note the receiver ID number and Bluetooth (BT) device address.



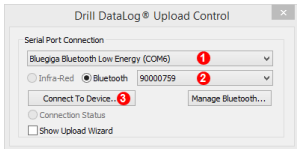
1. Receiver ID number
2. Bluetooth device address is on second page

2. Open the LWD 3.0 program and select **File > New** to open a blank job form.
3. Select **File** > **Upload Control** > **Manage Bluetooth**.
4. Enter the Falcon F5 receiver **Bluetooth Device Address** and **Name** (DCI recommends using the receiver ID number for the name).



1. Bluetooth devices previously added
2. Bluetooth device addresses
3. Falcon F5 receiver name

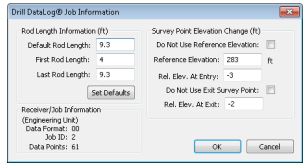
5. Click **Add** and the receiver will appear in the Bluetooth device list. Click **OK** to return to **Upload Control** and make these selections:



1. Bluegiga
2. Bluetooth ID (from Falcon F5 receiver)
3. Connect To Device
4. Manage Bluetooth (step 3)

Upload Data to Computer

1. Toggle down in the Falcon F5 Main menu and select **Drill DataLog** > **Upload job**.
2. Select the DataLog job from the list. The receiver is now waiting to connect to LWD. Data must be communicated within 15 minutes or the receiver will shut down.
3. In LWD 3.0, click **Upload Control** > **Connect to Device**.
4. The receiver beeps when the transfer is complete.
5. Enter or edit Job Information now or later. When finished, click **OK**. The data information fields and chart areas will fill with data. For a more detailed report, add utility flags and chart annotations.



LWD 3.0 Features

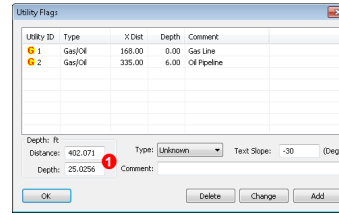
When a job is open, the LWD application shows detailed information about the job and the bore data, including a profile view of the bore. Pressure data will display in a separate pressure chart. Many of the program's menu items also appear as icons in the toolbar.

Other Resources

In addition to the Help in the LWD software, additional operator manuals are located on the LWD USB flash drive.

Creating Utility Flags

Utility flag entries display in the chart area and on the printed drill profile report.

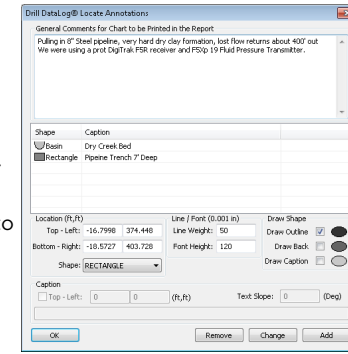


1. Hold Shift and click on the profile chart where you want a utility flag. The Utility Flags dialog box opens with the position data for the point automatically entered ❶.
2. Select the utility **Type**.
3. Click **Add** to post the new utility flag entry to the list, then **OK** to place the utility flag on the chart.

Double-click an existing utility flag to **Change** its properties or **Delete** it.

Creating Chart Annotations

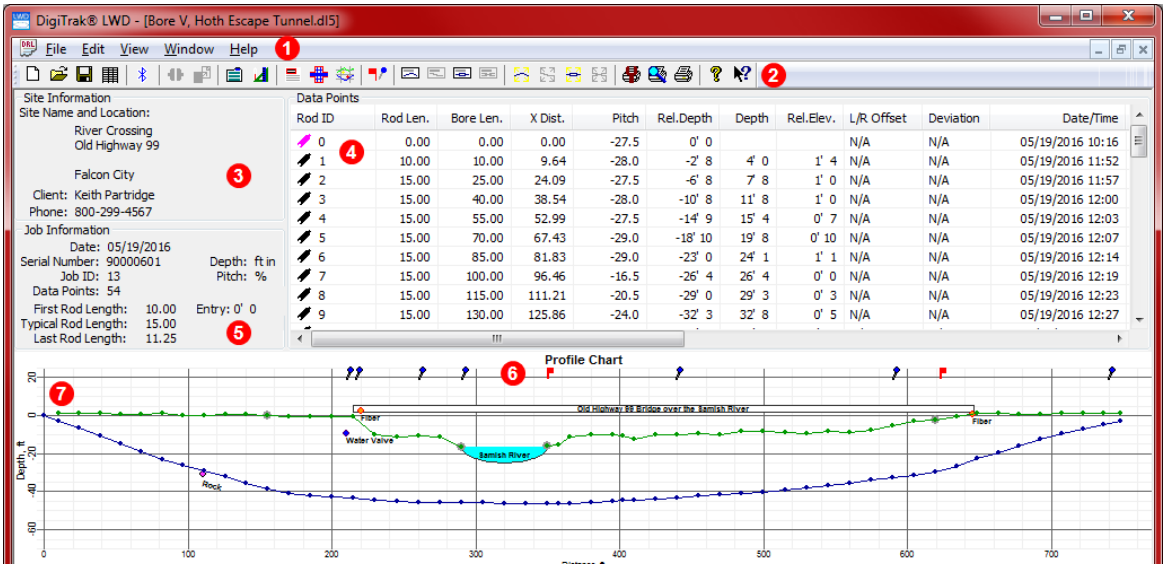
Chart annotations use shapes and captions to identify features and enter notes that will appear in the chart area and on the printed drill profile and pressure reports.



1. Hold Shift and drag a box around the area on the chart where the annotation should appear. The **Locate Annotations** dialog box opens with the coordinates of the box automatically entered.
2. Select shape, color, and caption for the annotation. Click **Add** to post the annotation to the list, then **OK** to place the annotation on the chart.

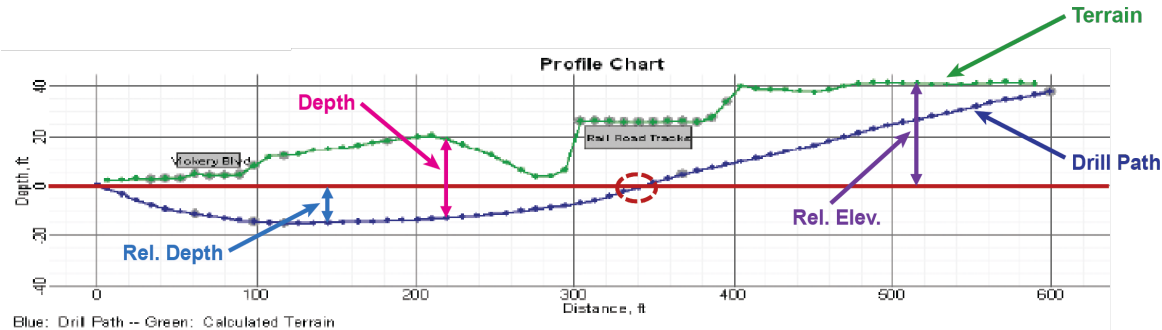
Double-click an existing annotation to **Change** its properties or **Remove** it.

DigiTrak LWD™ Typical Screen



1. Menu bar
2. Toolbar
3. Site information
4. Data point list
5. Job information
6. Flags and pins
7. Chart area

Drill Plot



- Drill Path – based on Pitch x Rod Len and determines Rel Depth.
- Bore Len – the combined length of the installed drill rods.
- X Dist – the distance from entry.
- Terrain – the depth recording plotted above the drill path, based on data recorded by the Falcon F5 receiver.
- At a distance of 104 m the Rel Depth is 20.3 cm; thus, the Drill Path is at the same calculated elevation as the drill rig entry point.

For detailed information, see your system operator's manual, available at www.digital-control.com. If you have questions, contact your regional DCI office at 61.7.5531.4283 or U.S. Customer Service at 1.425.251.0559.

DigiTrak LWD™ Drill Data

Rod ID	Rod Len.	Bore Len.	X Dist.	Pitch	Rel.Depth	Depth	Rel.Elev.	Date/Time	Type	RawDepth	RawDist	Avg. Pres.	High Pres.	Max Pres.	Comment
31	9.33	286.55	285.10	7.9	-8' 9	12' 6	3' 8	10/04/2011 14:59	LL	12' 6	-0.66	49	87	215	
32	9.33	295.88	294.40	8.4	-8' 0	14' 3	6' 3	10/04/2011 15:15	LL	14' 4	-0.79	33	56	150	
33	9.33	305.21	303.67	13.2	-7' 0	f 33' 2	26' 2	10/04/2011 15:54	PO	18' 0	12.07	12	20	62	
34	9.33	314.54	312.92	14.0	-5' 9	f 32' 0	26' 3	10/04/2011 16:06	PO	22' 11	15.27	11	15	33	Crossing RailRoad Tracks x 4
35	9.33	323.87	322.12	18.7	-4' 3	f 30' 5	26' 2	10/04/2011 16:21	PO	27' 2	17.68	14	24	90	Crossing RailRoad Tracks x 4
36	9.33	333.20	331.28	20.1	-2' 6	f 28' 4	25' 10	10/04/2011 16:37	PO	31' 9	20.52	11	17	30	Crossing RailRoad Tracks x 4
37	9.33	342.53	340.43	20.1	0' 8	o 26' 3	25' 7	10/04/2011 16:51	LL	42' 1	-5.49	16	26	57	
38	9.33	351.86	349.59	18.8	1' 2	f 24' 8	25' 10	10/04/2011 17:04	PO	35' 4	23.01	19	32	105	
39	9.33	361.19	358.76	18.2	2' 10	f 23' 2	26' 0	10/04/2011 17:06	PO	34' 1	22.26	17	21	25	
40	9.33	370.52	367.96	f 16.0	4' 5	f 21' 7	26' 0	10/05/2011 09:45	BL	33' 1	21.85	N/A	N/A	N/A	
41	9.33	379.85	377.19	13.8	5' 10	f 20' 0	25' 10	10/05/2011 10:07	PO	32' 1	21.41	29	37	51	

FLP	Front Locate Point	**f**	filled in
LL	Locate Line	**i[*]**	interpolated
PO	Pitch Only	**h**	hide
BL	Blank (no data)	**x**	pitch missing
IN	Inserted Rod	**N/A**	Not Applicable
o	override		(see page 5)

For information on using Flags, Pins, Deviation, and Offset, see the DataLog/LWD Operator's Manual for LWD 3.0.

Watch our DigiTrak® training videos at www.YouTube.com/DCIKent

DIGITAL CONTROL

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