

KellyDown Tips

Periodic tips to help you use KellyDown more effectively

Sidetracked Drill-Runs in KellyDown

In KellyDown, each drill-run is tied to its parent at a Bit Depth, Survey Depth and a Date and Time. Normally each new run is tied to the bottom of its immediate parent but there are situations where a well is sidetracked and a drill-run is tied to a previous run further up the hole and not necessarily at the bottom of its parent.

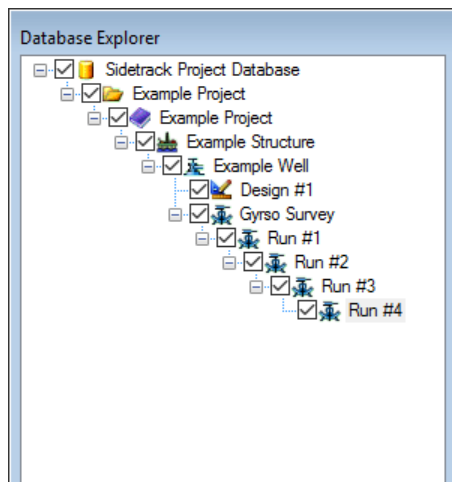


Figure 1

In Figure 1, *Run #1* is tied on to a surface gyro survey and runs *#2*, *#3* and *#4* have been drilled sequentially down to a depth of 1,650 metres. However, drilling problems necessitate that the well is plugged back and sidetracked at a depth of 750 metres, which happens to be a bit depth within the depth range of *Run #2*.

How do we sidetrack the well at the required depth in KellyDown such that the Drilling Progress Report correctly shows the sequence of drilling the well down to a depth of 1,650 metres and then sidetracking at a depth of 750 metres

on a shallower parent but also show the

survey data from surface down through the new sidetrack?

By default, KellyDown will string all drill runs together from surface down to the current run, which is fine in most circumstances, but in the case of a sidetracked well where the sequence of runs does not logically run from surface to TD, KellyDown has no way of knowing the sequence in which the runs were drilled. The only way to achieve this is to label the IDs of the runs in such a way that is representative of the order of the runs, i.e. *Run #1*, *Run #2*, *Run #3* etc.

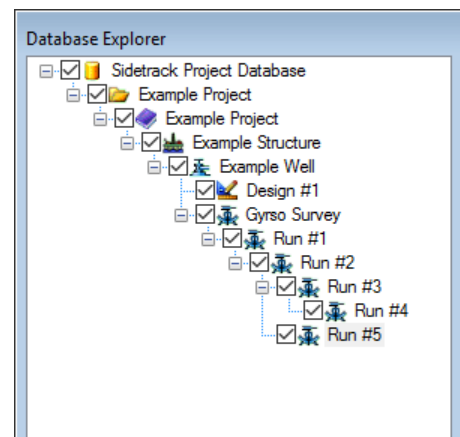


Figure 2

In Figure 2, *Run #5* is tied on to *Run #2* even though runs *#3* and *#4* have been drilled down to a depth of 1,650 metres.

Open the **Tools, Options** menu and under the **Report Options** tab, check the box that reads **Show all Drill Runs in EOW Reports (not just parent profiles – requires sequential Survey IDs)**. This causes KellyDown to order the runs in Drilling Reports in alphabetical order instead of the top-down order. As suggested by the option, it does mean that the IDs of all runs need to be labelled alphabetically. In most cases, this is already assumed. However, if the job is likely to consist of more than nine runs, they should be labelled in such a way that the alphabetical order is preserved. For example, runs should be labelled *Run #01*, *Run #02* ... *Run #10*, *Run #11* etc. The actual names of the runs may still be anything you wish.

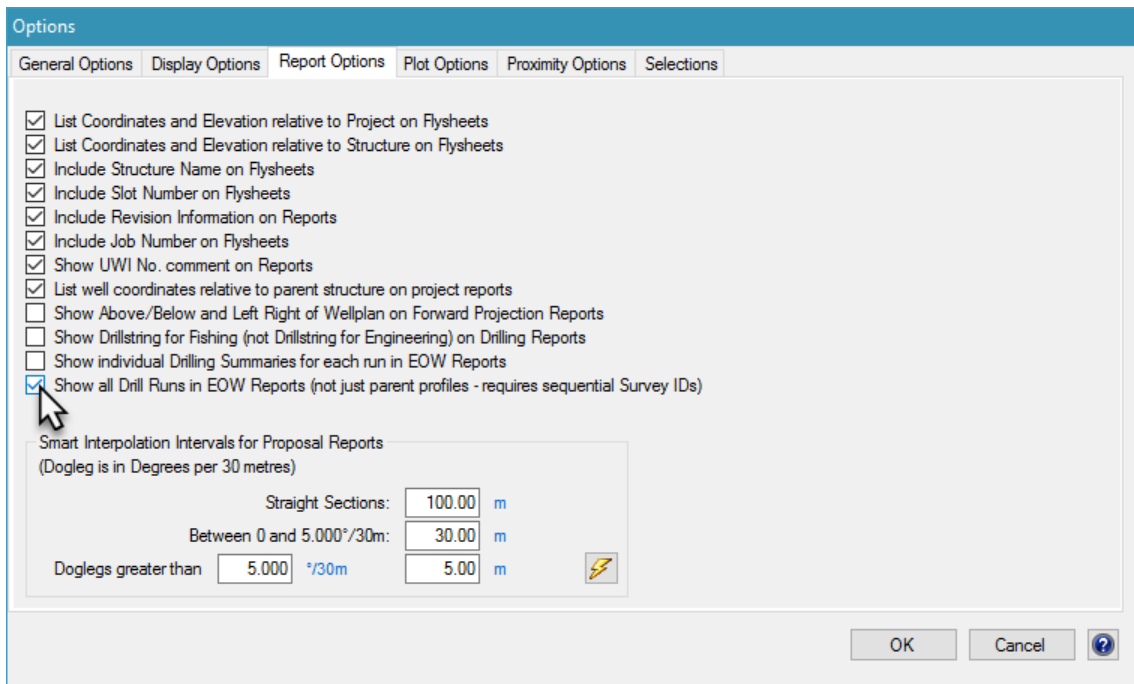


Figure 3

We wish to show the continuation of the time-breakdown in the End-of-Well Reports and Progress Reports so first we need to make a note of the date and time at the end of *Run #4* so we can continue *Run #5* at the same date and time.

In our example, the last date and time is *23:30 on 24 September 2017*. Make sure that the **End Time** isn't on the next day or later by checking the number of **Hours**.

No.	Survey (Y/N)	Activity	Date	Start Time	End Time	Hours	Course Length (m)	Bit Depth (m)	Survey Off Bottom (m)
136	<input type="checkbox"/>	Rotating	24/09/2017	15:55	16:03	0.13	4.70	1,614.87	
137	<input checked="" type="checkbox"/>	Survey & Connection	24/09/2017	16:03	16:06	0.05	0.00	1,614.87	0.00
138	<input type="checkbox"/>	Sliding	24/09/2017	16:06	16:10	0.07	4.00	1,618.87	
139	<input type="checkbox"/>	Rotating	24/09/2017	16:10	16:23	0.20	4.93	1,623.80	
140	<input checked="" type="checkbox"/>	Survey & Connection	24/09/2017	16:23	16:26	0.05	0.00	1,623.80	0.00
141	<input type="checkbox"/>	Sliding	24/09/2017	16:26	16:34	0.14	6.00	1,629.80	
142	<input type="checkbox"/>	Rotating	24/09/2017	16:34	16:41	0.12	3.70	1,633.50	
143	<input checked="" type="checkbox"/>	Survey & Connection	24/09/2017	16:41	16:44	0.05	0.00	1,633.50	0.00
144	<input type="checkbox"/>	Sliding	24/09/2017	16:44	16:54	0.16	6.00	1,639.50	
145	<input type="checkbox"/>	Rotating	24/09/2017	16:54	17:03	0.16	2.30	1,641.80	
146	<input checked="" type="checkbox"/>	Survey & Connection	24/09/2017	17:03	17:06	0.05	0.00	1,641.80	0.00
147	<input type="checkbox"/>	Sliding	24/09/2017	17:06	17:19	0.22	4.00	1,645.80	
148	<input type="checkbox"/>	Rotating	24/09/2017	17:19	17:27	0.12	4.30	1,650.10	
149	<input checked="" type="checkbox"/>	Survey & Connection	24/09/2017	17:27	17:30	0.05	0.00	1,650.10	0.00
150	<input type="checkbox"/>	Tripping Out	24/09/2017	17:30	21:30	4.00	0.00	1,650.10	
▶ 151	<input type="checkbox"/>	Rig Up & Tear Down	24/09/2017	21:30	23:30	2.00	0.00	1,650.10	

Figure 4


Next open the Slidesheet for *Run #2* and decide where you want to sidetrack the well. By default, KellyDown will tie the sidetrack onto the bottom of the parent, but you may wish to choose a shallower depth. In our example, we'll choose *750 metres*.

No.	Survey (Y/N)	Activity	Date	Start Time	End Time	Hours	Course Length (m)	Bit Depth (m)	Survey Depth (m)	Survey Incline (°)
142	<input checked="" type="checkbox"/>	Survey & Connection	22/09/2017	17:23	17:25	0.04	0.00	735.61	718.11	83
▶ 143	<input type="checkbox"/>	Sliding	22/09/2017	17:25	17:35	0.16	4.00	739.61		
144	<input type="checkbox"/>	Rotating	22/09/2017	17:35	17:45	0.17	4.82	744.42		
145	<input checked="" type="checkbox"/>	Survey & Connection	22/09/2017	17:45	17:48	0.04	0.00	744.42	726.92	83
146	<input type="checkbox"/>	Sliding	22/09/2017	17:48	18:02	0.24	3.00	747.42		
147	<input type="checkbox"/>	Rotating	22/09/2017	18:02	18:07	0.09	6.61	754.04		
148	<input checked="" type="checkbox"/>	Survey & Connection	22/09/2017	18:07	18:10	0.04	0.00	754.04	736.54	85
149	<input type="checkbox"/>	Sliding	22/09/2017	18:10	18:22	0.21	4.00	758.04		
150	<input type="checkbox"/>	Rotating	22/09/2017	18:22	18:27	0.09	5.28	763.32		
151	<input checked="" type="checkbox"/>	Survey & Connection	22/09/2017	18:27	18:30	0.05	0.00	763.32	745.82	8
152	<input type="checkbox"/>	Sliding	22/09/2017	18:30	18:40	0.16	4.00	767.32		
153	<input type="checkbox"/>	Rotating	22/09/2017	18:40	18:50	0.17	5.37	772.69		
154	<input checked="" type="checkbox"/>	Survey & Connection	22/09/2017	18:50	18:52	0.04	0.00	772.69	755.19	84
155	<input type="checkbox"/>	Sliding	22/09/2017	18:52	19:04	0.19	4.00	776.69		
156	<input type="checkbox"/>	Rotating	22/09/2017	19:04	19:09	0.08	5.07	781.76		
157	<input checked="" type="checkbox"/>	Survey & Connection	22/09/2017	19:09	19:12	0.04	0.00	781.76	764.26	85
158	<input type="checkbox"/>	Tripping Out	22/09/2017	19:12	21:12	2.00	0.00	781.76		
*	<input type="checkbox"/>									


Figure 5

Notice there is no bit record or survey record at this depth, so KellyDown will interpolate the tie-on bit depth and survey depth.

Select **Tools, Create New Slidesheet** to create the new Slidesheet. Notice that KellyDown correctly names the new Slidesheet, *Run #5*, but ties it to the bottom of *Run #2*.

 Click on the **Tie-on data** button to open the **Tie-on Coordinates** dialog. Change the date and time to that read from the bottom of *Run #4* and enter **750 metres** for both the **Bit Depth** and the **Survey Depth**. Click on the **OK** button to return to the slidesheet.

Tie-on Coordinates

Start Date/Time: 24/09/2017 23:30 

Bit Measured Depth: m

Survey Measured Depth: m

Inclination: °

Azimuth: °

Vertical Depth: m

Northings: m


Eastings: m 

Figure 6

Click on the **No** button when asked if you want to update the parent's total depth because we still want the original well be included in drilling reports, plots and anti-collision scans.

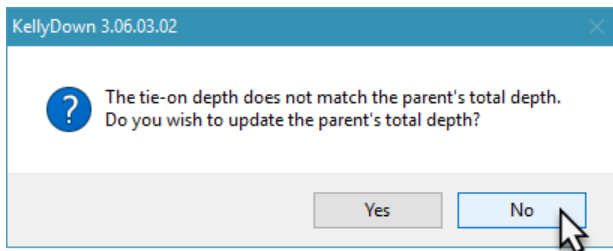


Figure 7

The tie-on time, bit depth and survey depth are shown on first line of the new slidesheet and as you add new slide information, it is correctly tied on.

No.	Survey (Y/N)	Activity	Date	Start Time	End Time	Hours	Course Length (m)	Bit Depth (m)	Survey Depth (m)	Survey Inclination (°)	Survey Azimuth (°)
0	<input type="checkbox"/>		24/09/2017		23:30			500.00	500.00	70.419	133.998
1	<input type="checkbox"/>	Change BHA	24/09/2017	23:30	00:00	0.50	0.00	500.00			
2	<input type="checkbox"/>	Tripping In	25/09/2017	00:00	01:15	1.25	0.00	500.00			
3	<input type="checkbox"/>	Drilling	25/09/2017	01:15	01:36	0.35	8.56	508.56			
4	<input type="checkbox"/>	Drilling	25/09/2017	01:36	01:50	0.24	9.25	517.81			
5	<input checked="" type="checkbox"/>	Drilling	25/09/2017	01:50	02:06	0.26	9.14	526.95	510.70	71.750	134.750
6	<input checked="" type="checkbox"/>	Drilling	25/09/2017	02:06	02:24	0.30	9.23	536.18	519.93	72.850	135.500

Figure 8

The End-of-well and Progress Reports will then show the complete drilling activity log including the records for the original well and the sidetrack well but the Survey Data section will show the Survey Data originating at surface and following the sidetracked well down to the survey at 519.93 metres.

Whenever you open the slidesheet for *Run #5* in the future, a warning message will tell you that the **Start Time** does not match the **End Time** for the parent slidesheet. You may simply ignore this message.

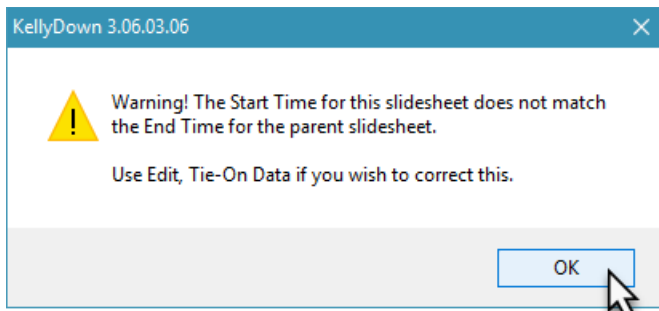


Figure 9

If you have a question you would like answered in KellyDown Tips, reply to this email with your question.
 If you would like anything added to KellyDown to make it more useful or user friendly, reply to this email with your requests.
 You can download the latest version of KellyDown from www.kellydown.ca
 If you would like to be removed from this email distribution list, reply with "Unsubscribe" in the subject line.
