

RE-Studio 3D Well Designer



Create and edit wells interactively
on the grid

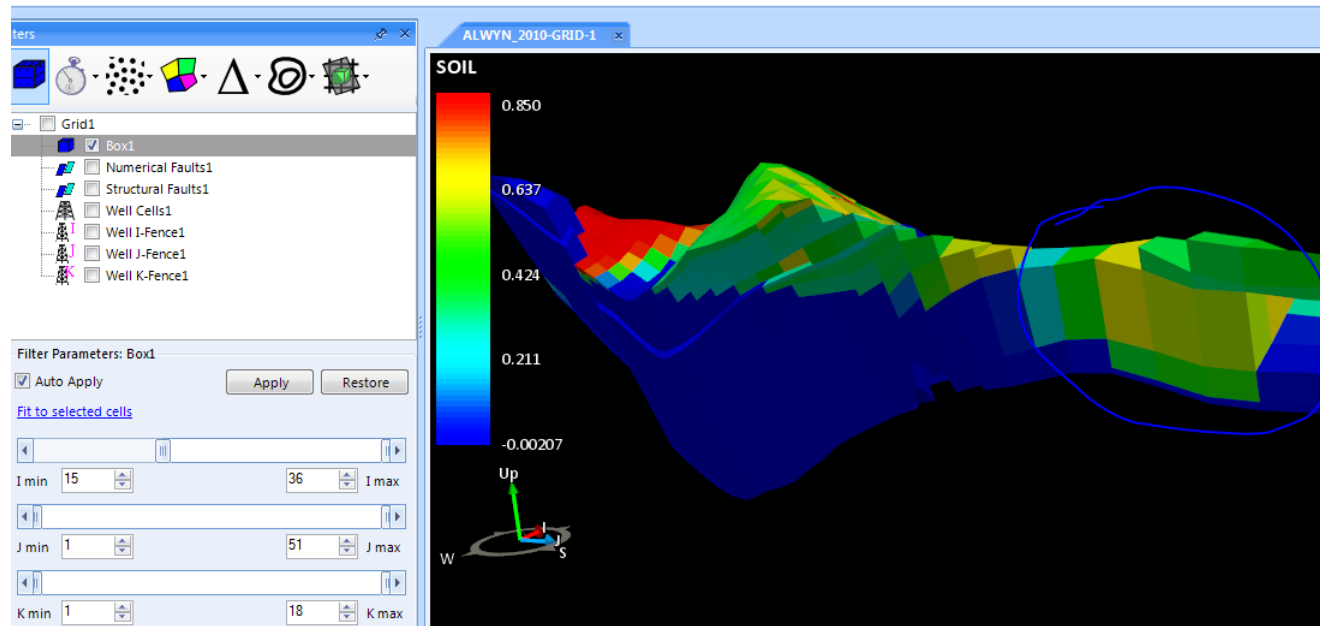
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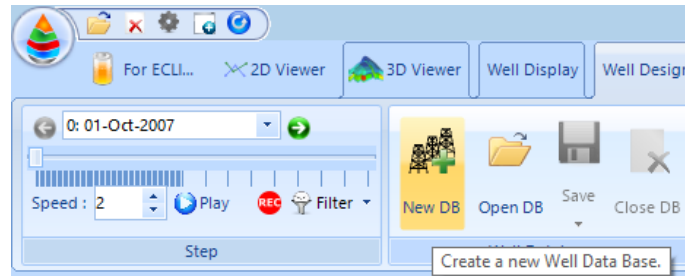
Well Creation Step 1

- Create a BOX akin to the below I,J,K values where you would like to introduce a new well. In this case, that circled area is where we want to drill a new deviated well

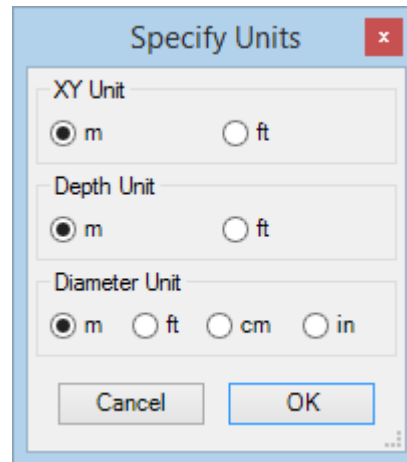


Well Creation Step 2

- Go to Well Design tab and select New DB first

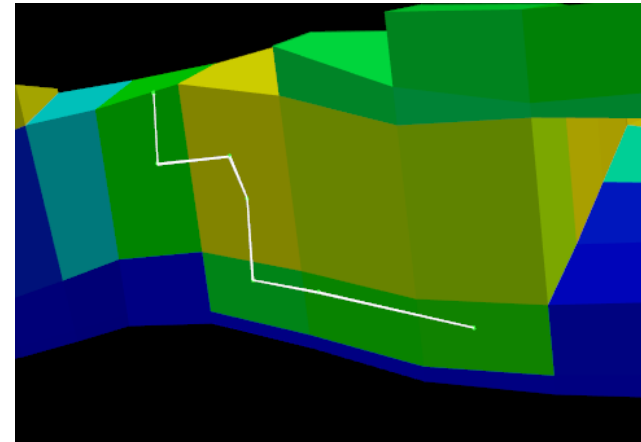
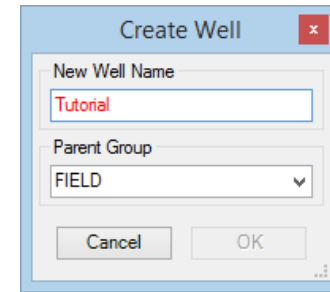
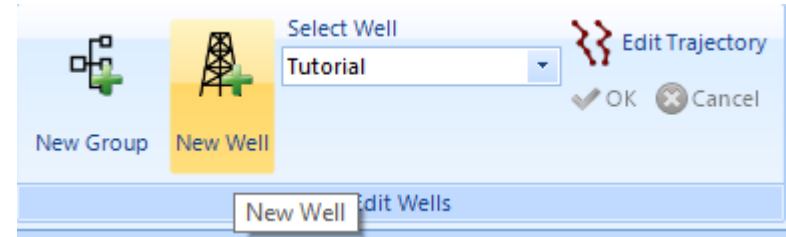


- This tells RE-Studio what units we will be using for the trajectory we will design and for computing the relevant information



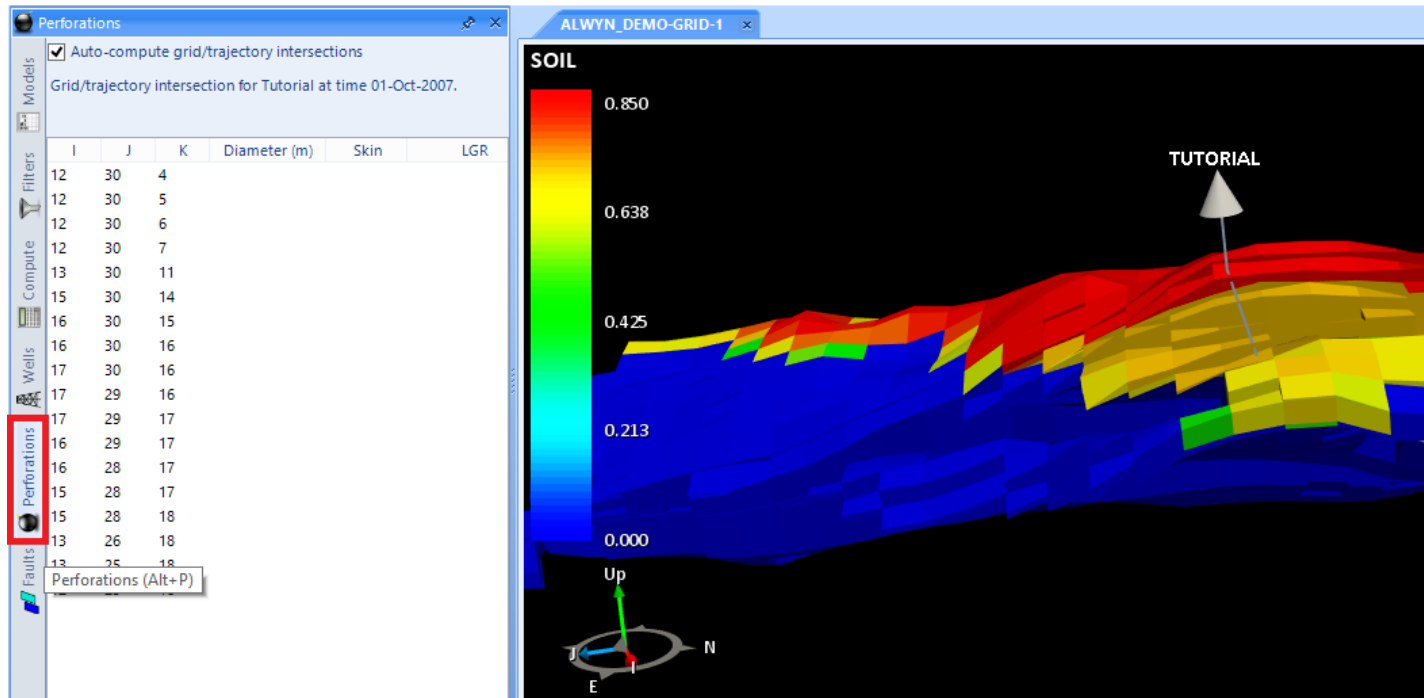
Well Creation Step 3

- Now select New Well
- Assign the new well a name
- Now select EDIT trajectory and **Right** click on each grid cell to create the trajectory



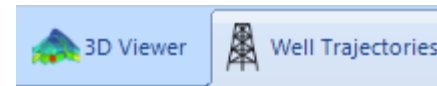
Well Creation Step 4

- Now press OK and go to the Perforations tab to start filling in data. Specify the info similar as below but appropriate to your well



Well Creation Step 5

Now go to the Well Trajectories



The new well should be there, now double click on it.

The Trajectory and Perforations information should be already populated so all that is left is to compute

The screenshot shows a software interface with two main windows. The 'Wells' window on the left has a filter and a table with columns 'Name' and 'Simulation Name', containing one entry 'New_well'. The 'New_well on 01-Jan-2023' window on the right displays data for the well's trajectory and perforations.

Trajectory				
MD (m)	Z (m)	X (m)	Y (m)	
0	0	432014.793025083	6741360.60325935	
3198.63162847351	3198.63162847351	432014.793025083	6741360.60325935	
3228.20495032552	3223.17879652481	432009.757816098	6741376.30881812	
3409.0892916829	3220.18376553109	432063.778279277	6741203.70532947	
3438.83112578025	3234.48792255747	432071.758890292	6741178.88038969	

Perforations				
MD Start (m)	MD End (m)	Diameter (in)	Skin	
3201.6994247534	4023.51322111984	10	1	

Connections				
Filter				
Connections				
LGR	I	J	K	

Well Creation Step 6

- Now press Compute



- Import that appropriate EGRID and INIT file associated with your model and the resulting info will be show in the connections tab

LGR	I	J	K	Flag	Kr	CF	Diameter (m)	KH
15	27	16		OPEN		25.0320050946468	0.254	2700.31666151372
15	28	16		OPEN		41.7867806083488	0.254	4486.29886394056
15	28	17		OPEN		35.2115203017811	0.254	3781.99168639684
15	29	17		OPEN		177.57157951683	0.254	18953.3438229349
15	30	17		OPEN		166.188199485135	0.254	17624.4874021423

- Now Update Data or Export as explained in the Well Trajectories tutorial