



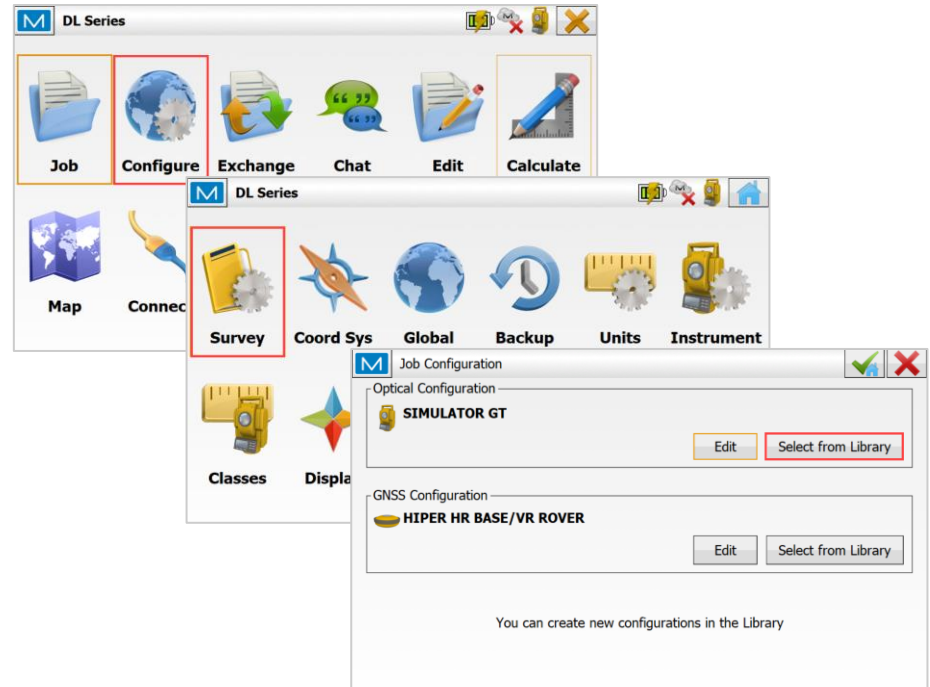
SOKKIA

Sokkia Digital Level

Level run

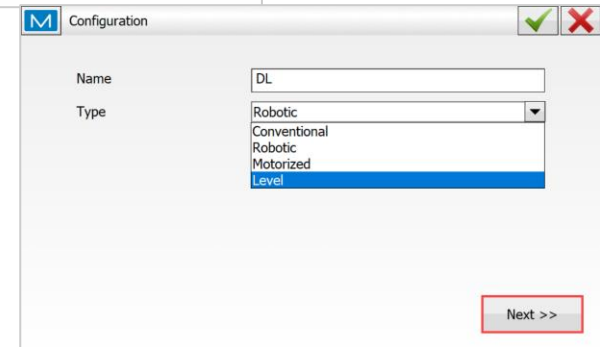
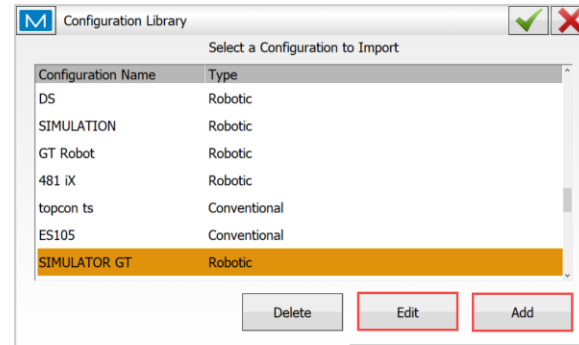
Create Digital Level Configuration

- Go to “Configure”
- Go to “Survey”
- Go to “Select from Library”
of Optical Configuration



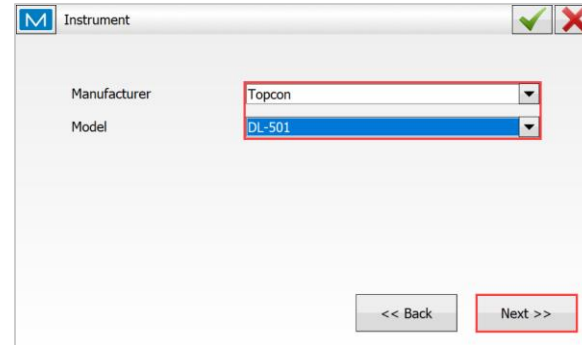
Create Digital Level Configuration

- Go to “Add”
- Add: you can create a new configuration
- Edit: you can edit the existing configuration.
- This method is overwriting it
- Edit “Name” and Select “Level” from “Type”
- Click “Next>>”

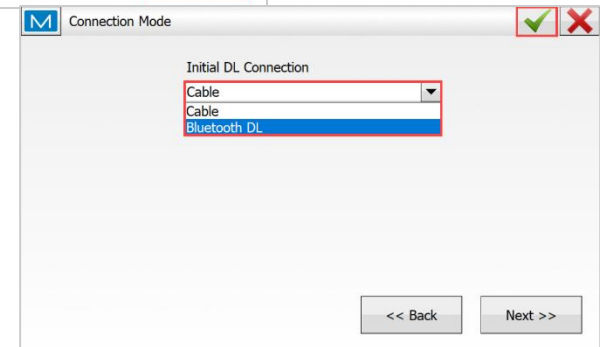


Create Digital Level Configuration

- Select “Topcon” as Manufacturer and edit “Model”
- Click “Next>>”
- Select how to connect with DL series
- Go to Green check



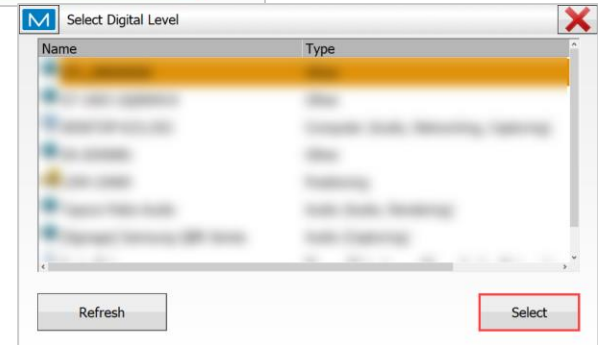
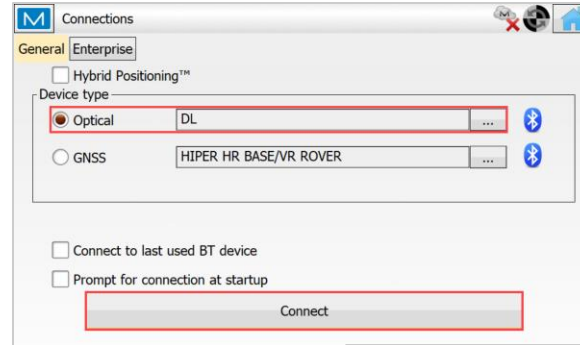
The screenshot shows a software window titled "Instrument" with a blue 'M' icon in the top-left corner and a green checkmark and a red 'X' in the top-right corner. The window contains two dropdown menus: "Manufacturer" with "Topcon" selected and "Model" with "DL-501" selected. Below the dropdowns are two buttons: "<< Back" and "Next >>".



The screenshot shows a software window titled "Connection Mode" with a blue 'M' icon in the top-left corner and a green checkmark and a red 'X' in the top-right corner. The window contains a dropdown menu labeled "Initial DL Connection" with "Bluetooth DL" selected. Below the dropdown are two buttons: "<< Back" and "Next >>".

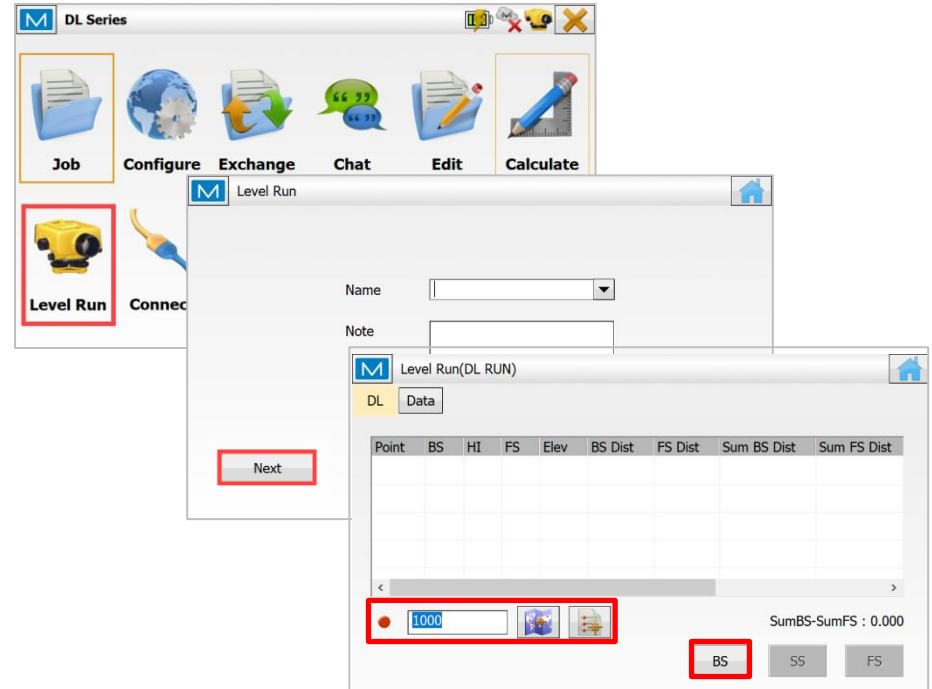
Connect Digital Level to MAGNET Field

- Go to “Connect” in Home Menu
- Tick Optical and select DL configuration in “Device type”
- Click “Connect”
- Select DL’s S/N and Click “Select”



Level Run

- Go to “Level Run”
- Input the project “Name”
- Click “Next”
- Create or select one point as Back sight
- Waving the staff on the Benchmark



Level Run

- Click “**BS**”
- The measurement will auto populate in the controller.
- **Notice the calculated HI**
- Select one point as **FS** or SS
- Place the rod over the **next point**
- Click “**FS**” and start waving the staff on the FS point
- **FS** point will be created
- The FS here will be our Turning Point aka TP

The screenshots illustrate the data entry and point selection process in the Sokkia Level Run software. The data table is as follows:

Point	BS	HI	FS	Elev	BS Dist	FS Dist	Sum BS Dist
← 1000	1.482	1.482		0.000	5.320		5.320
→ 1001			1.5...	-0.019		6.920	

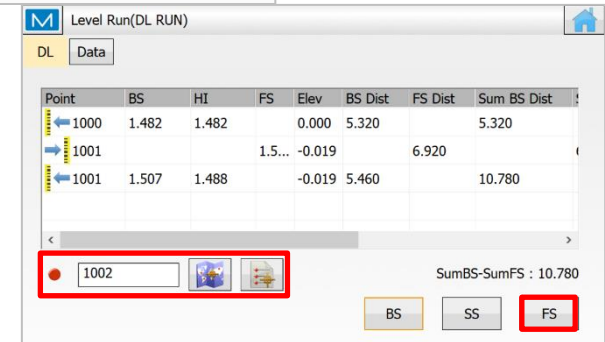
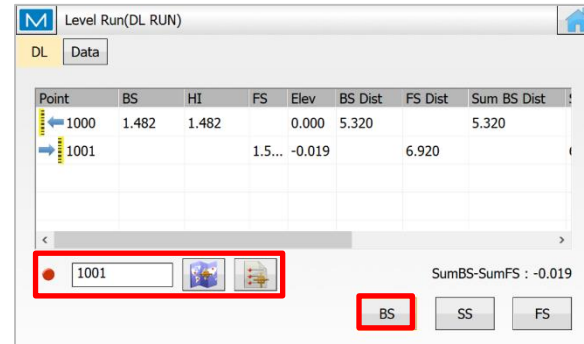
The screenshots show the following steps:

- The initial data entry for point 1000, with the BS value (1.482) and calculated HI (1.482) highlighted.
- The selection of point 1001 as the next point, with the point ID and the FS button highlighted.
- The final data entry for point 1001, with the FS value (1.5...) and calculated FS Dist (6.920) highlighted.

The bottom screenshot also shows the status bar with the text "SumBS-SumFS : -0.019" and buttons for "BS", "SS", and "FS".

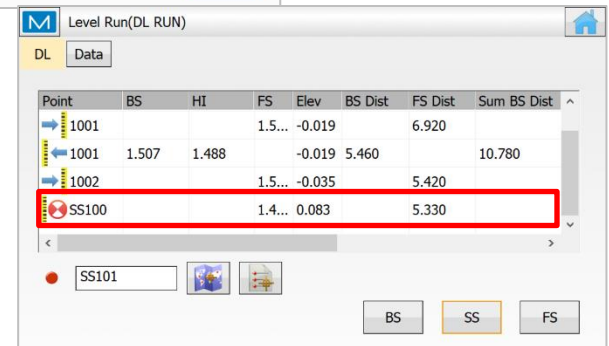
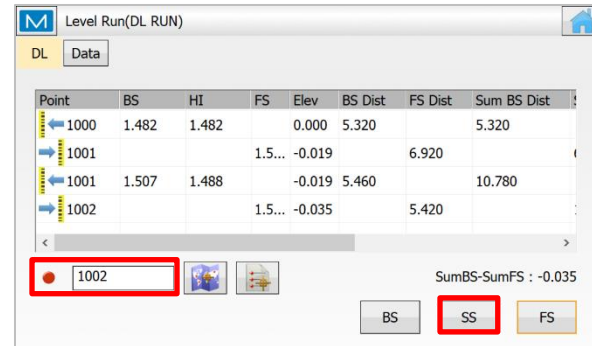
Level Run

- Select the **FS** previously measured as the turning point
- Use the list view for faster results
- Keep the Rod on the same point
- Advance the DL in the direction desired aka leapfrog
- Click “BS” to measured the TP
- Place the rod over the next FS aka TP
- Input the new FS name at the left of icons
- Click “FS” to measured it
- Repeat these steps to continue advancing to the next benchmark or to return to the origin.



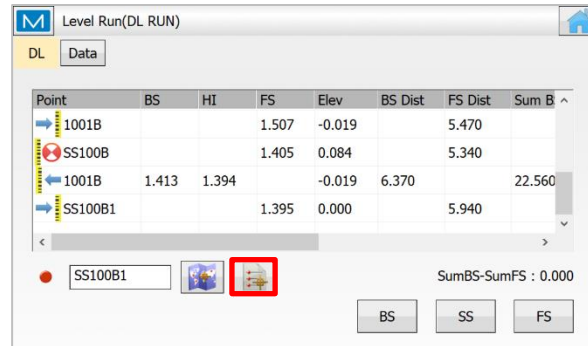
Level Run: *Side Shots*

- Sideshots these can also be measured during the level run to capture additional points along the Level Run
- Input the name for Side Shot
- Click “SS”
- Waving the staff on the SS point
- SS point will be created



Level Run: Results and Reports

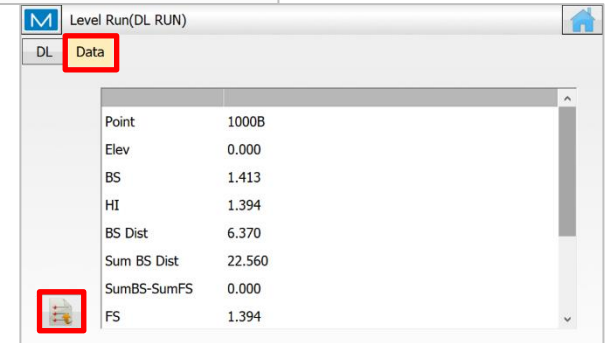
- After returning to the first BS point, “SumBS - SumFS” will pop up
- Go to “Data” tab
- Click the report icon and export Result Report



Point	BS	HI	FS	Elev	BS Dist	FS Dist	Sum B
1001B			1.507	-0.019	5.470		
SS100B			1.405	0.084	5.340		
1001B	1.413	1.394		-0.019	6.370		22.560
SS100B1			1.395	0.000	5.940		

SumBS-SumFS : 0.000

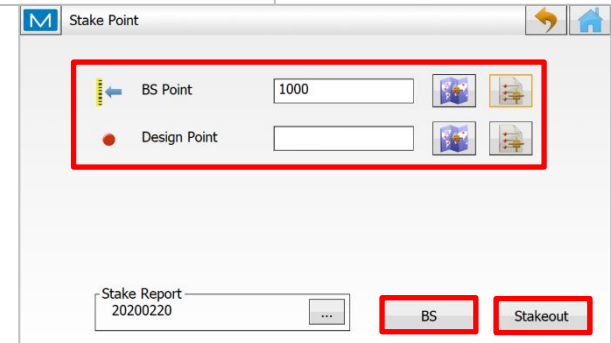
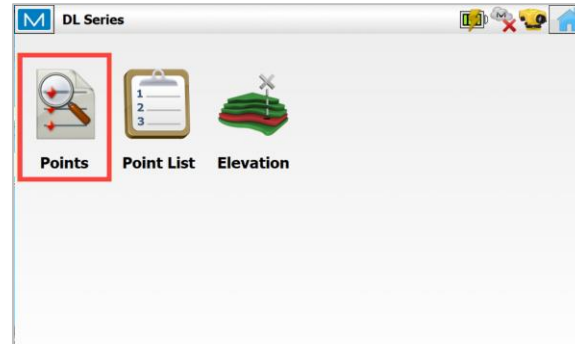
Buttons: BS, SS, FS



Point	1000B
Elev	0.000
BS	1.413
HI	1.394
BS Dist	6.370
Sum BS Dist	22.560
SumBS-SumFS	0.000
FS	1.394

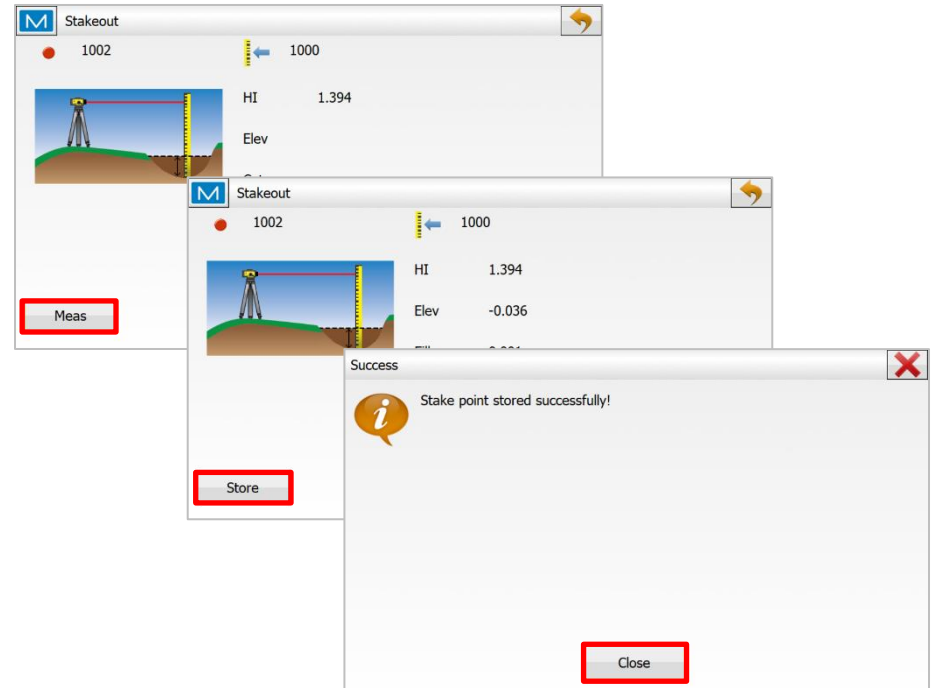
MAGNET: *Digital Level Staking*

- Go to “Stake”
- Go to “Points”
- Select “BS Point” & “Design Point”
- Place the Rod over the point of known elevation
- Click “BS” and complete setup
- Click “Stakeout



How to Stake with Digital Level and MAGNET Field

- Place the staff on Design Point
- Click “Meas”
- Review results and store
- And repeat as necessary
- Click “Close”



Troubleshooting section Digital levels

If the rod is not read by the **Digital Level** make sure to:

- Check the aim of the scope using the peep View
- Remember to focus the lenses to the objective
- Remove cover
- Clean the Level rod
- Light on the rod is required to read the rod
- There cannot be direct light aim towards the DL in order to get the measurement

SOKKIA