

Laser Range Finder CSV Template

Below is an example of a CSV import of survey data using a laser range finder

	Data collection using Range Finder						
#SAVE#	Project No.	6669437 6669610 2417 2419					
#SAVE#	Temp on Day C	34					
#SAVE#	Field Data collecled by:	T Mill, S Macdonald					
#SAVE#	Date:	Thursday, 21 February 2019					
	Point Number	Instrument Height	Bearing to nearest (°)	Horizontal Distance (m)	Vertical Distance (m)	Target Height	Comment
#OCCUPY#	1	1.5	142.5			1.5	%PO4209116,%PL10.5,%PA8.9
				73.5	0.3	1.5	%YC7.3
				134	0.4		%YC6.0
				149.2	0.4		%YC6.2
				217.8	0.5		%YC7.0
	2	2		293.4	0.3		
#OCCUPY#	2	1.5	142.5			1.5	%PO4217274,5PL8.9,%pa9.2
				74.6	-0.3		%YC6.3
				121.9	-0.5		%YC5.6
				139.3	-0.6		%YC5.4
				181.1	-0.1		%YC5.1
				218.8	-1		%YC6.5
	5	8		293.5	-0.8		
#OCCUPY#	2	1.5	346.5			1.5	
				66.1	-0.4		%YC6.9
				165.3	-0.9		%YC6.3
				233.3	-1.6		%YC7.3
				336.4	-2.4		%PO4217275,%PL10.5,%PA10.8
#OCCUPY#	3	1.5	142.5			1.5	%PO4217273,%PL9.1,%PA9.4
				141.6	-0.8		%YC5.8
				285.6	-2.1		%PO4217272,%PL10.2,%PA10.0

CSV Template Steps:

- 1. Enter a Project No. for the job
- 2. Enter the Temperature on the Day of Capture
- 3. Enter who the Field Data was Collected by in the format shown above
- 4. Enter the **Date** of capture in the format shown above
- 5. Next, start entering in the survey date. A new **Point Number** only needs to be entered when changing bearing
- 6. The **Instrument Height, Bearing to Nearest Degree** and **Target Height** are also only required to be entered once until the bearing path changes
- 7. Enter the **Comment** code for the first pole (starting point for the bearing) in the format shown (%PO followed by the Asset No.)
- 8. Next, begin adding the survey points by entering a **Horizontal Distance** and **Vertical Distance** and any required **Comments** (field codes) until a change of bearing is required
- 9. For the last survey point on a heading, you must enter either the **Point Number** of the next starting point or a pole comment if it is the end of the route
- 10. Repeat steps 5-9 until all the survey data has been entered



Importing Laser Range Finder CSV

- 1. Install COLDNet Profile and open application
- 2. The following screen will appear. Select Create a New Project

COLDNet Profile 1.0.0 Licenced to:	 • • • • • • • • • • • • • • • • • • •	144 - 147 B	- - X				
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Profile							
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	Recent Project List -	Double Click to Select					
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C:\Users\Kieren Hatchman\Documents Profile\ExampleJobs\test2.COLDProfile	\Kieren Hatchman\CATAN\COLDNet	C:\Users\Kieren Hatchman\Documents\Kieren Hatchman\CATAN\COLDNet Profile\ExampleJobs\test1.COLDProfile					
C:\Users\Kieren Hatchman\Documents' Profile\Files\Test10.COLDProfile	\Kieren Hatchman\CATAN\COLDNet	C:\Users\Kieren Hatchman\Documents\Kieren Hatchman\CATAN\COLDNet Profile\Files\Test9.COLDProfile					
C:\Users\Kieren Hatchman\Documents Profile\Files\Test7.COLDProfile	\Kieren Hatchman\CATAN\COLDNet	C:\Users\Kieren Hatchman\Documen Profile\Files\Test8.COLDProfile	ts\Kieren Hatchman\CATAN\COLDNet				
C:\Users\Kieren Hatchman\Documents' Profile\Files\Test6.COLDProfile	\Kieren Hatchman\CATAN\COLDNet	C:\Users\Kieren Hatchman\Documen Profile\Files\Test3.COLDProfile	ts\Kieren Hatchman\CATAN\COLDNet				

- 3. Give the file a name, e.g. ImportCSVLaserRangeFinder.
- 4. The following screen below will appear. Select Parameter File Locations>Add Directory to navigate to the location where the Design Parameters/Libraries have been stored locally on the machine. Once selected Close Manage Directories window and double click on the desired parameter file from the list. For this example, select the Design Parameter file called **EQNonCyclonic**.

COLDNet Profile F	ile = C:\U	sers\Kieren Hatchm	an\Documen	nts\Kieren	Hatchman\CATAN	COLDNet Profi	le\Files\Wa	lkthrough	CSVImport.COLDF	Profile			-				- 0	
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5. After selecting and importing a Parameter File select Import Simple CSV File (Laser Range Finder Format), then navigate to where the file DataCollectionExampleVer2.csv has been saved and open (make sure the file isn't already open on your system). The window below will open

	Data								- 0
educe Data Dele	te All Data Clos	•							
irst Point Detail			Angle Data T	ype	Measureme	int Data		Data Entry Tools	
Easting (m)		0.000	Decimal D	legrees	Horizon	al & Vertical Dista	nce	Lock Bearing	
Northing (m)		0.000	O Degrees,	Minutes & Seconds	O Slope D	istance & Vertical	Angle (0° Horizontal)	Lock Target Height	
Elevation (m) 0.000 Point to Point O Multiple Shots			e Shots	Auto Increment Po					
Line No.	Occupied Point No.	Eye Height (m)	Point No.	Bearing (*)	Horizontal Distance (m)	Vertical Distance (m)	Target Height (m)		Comment
	1	1.500		142.5000	0.000	0.000	1.500 %PO+	209116,%PL10.5,%PA8.9	
2	1	1.500	1.1	142.5000	73.500	0.300	1.500 %YC	.3	
	3 1	1.500	1.2	142.5000	134.000	0.400	1.500 %YC	.0	
	1	1.500	1.3	142.5000	149.200	0.400	1.500 %YC	.2	
		1.500	2	142,5000	293.400	0.300	1.500 %10.	.0	
3	7 2	1.500	-	142.5000	0.000	0.000	1.500 %PO4	217274,5PL8.9;%pa9.2	
8	3 2	1.500	2.5	142.5000	74.600	-0.300	1.500 %YC	.3	
5	2	1.500	2.6	142.5000	121.900	+0.500	1.500 %YC5	i.6	
10	2 2	1.500	2.7	142.5000	139.300	+0.600	1.500 %YC	.4	
11	1 2	1.500	2.8	142.5000	181.100	-0.100	1.500 %YC5	6.1	
12	2 2	1.500	2.9	142.5000	218.800	-1.000	1.500 %YC8	N5	
14	2	1,500	3	346,5000	293.300	0.000	1.500		
15	2	1.500	2.10	346,5000	66.100	-0.400	1.500 %YC	.9	
16	5 2	1.500	2.11	346.5000	165.300	-0.900	1.500 %YC	.3	
17	2 2	1.500	2.12	346.5000	233.300	-1.600	1.500 %YC	.3	
16	2	1.500	2.13	346.5000	336.400	-2.400	1.500 %PO	217275,%PL10.5,%PA10.8	
15	3	1.500		142.5000	0.000	0.000	1.500 %PO4	217273,%PL9.1,%PA9.4	
	3	1.500	3.14	142.5000	141.600	+0.800	1.500 %YC	i.8	
20		1.500	3.15	142.5000	285.600	-2.100	1.500 %PO4	217272,%PL10.2,%PA10.0	

- 6. Check to ensure all the data has imported correctly
- 7. Ensure that the Angle Data Type selected is Decimal Degrees
- 8. Change the entry format from **Point to Point** to **Multiple Shots**
- 9. Ensure that the Measurement Data type selected is Horizontal & Vertical Distance

and a second second second	le version: 1.0.0 Licencei	i to: File: C:\Users	\/Geren Hatchman\/E	locuments\Kieren	Hatchman\CATAN	COLDNet Profile\Document	ation\Updated Doc	umentation\Files for Doo	umentation/importCSVLaserRangeFinder.COI	DProfile					D 2
	arameters & Libraries	Terrain Data	Profiles Conduct	urs Tables	Tools Feature	Codes Reports Clone D	lesign Plots E	xport Unda Redo	Clear Undo/Redo Lists Job History	Add Offline Point Cross-Sections	3D View CDGD	Guide Info	mation Calcu	ulators	
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Measure	Line No.	Occupied Point	Eve Height (m)	Point No.	Bearing (*)	Horizontal Distance (m)	Vertical	Target Height		Comment					
Show Triang	Enternor	No.	Lyc magna (my		142 5000	nonzonizi oriztorico (m)	Distance (m)	(m)	1000116 0 0 10 5 0 010 0				- 60		
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Point Manager	*	1	1.500	1.7	142.5000	134.000	0.400	1.500 94YC	5.0				_		
Mouse Lock	4	1	1.500	1.3	142,5000	149,200	0.400	1,500 %YC	6.2				_		
Colorise Ground	5	1	1.500	1.4	142.5000	217.800	0.500	1.500 %YC	7.0				_		
Fill Triangle	6	1	1.500	2	142.5000	293.400	0.300	1.500							
Show Point In	7	2	1.500		142.5000	0.000	0.000	1.500 %PO	4217274,5PL8.9,%pa9.2						
Show All Trian	8	2	1.500	2.5	142.5000	74.600	-0.300	1.500 %YC	6.3						
	9	2	1.500	2.6	142.5000	121.900	-0.500	1.500 %YC	5.6						
	10	2	1.500	2.7	142.5000	139.300	-0.600	1.500 %YC	5.4						
	11	2	1.500	2.8	142.5000	181.100	+0.100	1.500 %YC	5.1				_		
	12	2	1.500	2.9	142.5000	218.800	-1.000	1.500 %YC	6.5				_		
	13	2	1.500	3	142.5000	293.500	-0.800	1.500					_		
	14	2	1.500		346.5000	0.000	0.000	1.500					_		
	15	2	1.500	2.10	346.5000	66.100	-0.400	1.500 %YC	6.9				_		
	15	2	1.500	2.11	346.5000	165.300	-0.900	1.500 %YC	5.3				_		
	17	2	1.500	2.12	346.5000	233.300	-1.600	1.500 %YC	7.3				_		
	10	2	1.500	2.13	143 5000	336.400	-2,400	1.500 %PO	4217275,%PL10.5,%PA10.6				_		
	20		1.500	3.14	142,5000	141.600	-0.800	1.500 %PO	5.8				_		
			1.500	3.15	142.5000	285.600	-2.100	1.500 %PO	4217272,%PL10.2,%PA10.0						
	21	3													

10. Select Reduce Data



11. Once data has been reduced select **OK** and you will then be taken to the main plan view screen as shown below



- 12. Next we want to create a profile by first selecting **Tools>Show Create Profile Menu**. An additional menu bar should appear
- 13. Select Ground Points>Show Comments from left tool-bar menu
- 14. Select the option that says **Deviation Point** before selecting the first pole (Asset No. 4209116) for the profile as shown below (marked by a yellow cross)

COLDNet Profile Versio	ni 1.0.0 Licenced to:		- 0 ×
File Design Paramet	ars & Ubraries Terrain Data Profiles Conductors Tables Tools Feature Codes Reports Clone Design Plots Export Undo Redo Clear Undo/Redo Lists Job History Add Offline Point Cross-Sections 3D v	view COGO Guide Information	Calculators
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View	•%PO4217275,%PL10.5,%PA10.8	1	
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Fill Triangles		1	
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	●%P04217273,%PL9.1,%PA9.4		
	* %YC5.8		
	•%P04217272,%PL10.2,%PA10.0		
	1227.93m		
X: 830.274 Y: +405.514	Last Save at		



15. Next, select the deviation points (where the route changes direction) along the profile as shown below for Asset No.'s 4217274, 4217273 & 4217272



- 16. Select Generate Profile from the tool menu
- 17. A new window will open with a default **Design Name** called "Design1" and **Profile Name** called "Profile1". Click **Create Profile**
- 18. The profile centreline and triangulated terrain model will be generated as shown below



COLDNet Profile – Import Survey Data CSV (Laser Range Finder)

19. Select the option labelled Profiles in the top toolbar menu. A new window will open as shown below



- 20. Now we are going to add a conductor to our design by selecting the option labelled **Conductors**. A new window will open
- 21. Select the Voltage '11'
- 22. Select the Conductor Group 'Standard'
- 23. Select the Conductor 'Chlorine: AAAC 1120 7/2.50 Chlorine
- 24. Enter an Everyday Load (%CBL) of '18'
- 25. Enter the No. of Wires as '3'
- 26. Enter the Max Temperature (°C) of '50'
- 27. Enter the Min Temperature (°C) of '0'



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- 28. Select **Save** in the top right-hand corner of the window
- 29. We are now going to place poles at those locations where poles have been indicated in the survey data using the field code %PO. Do this by first selecting the option **Place Default Poles on Profile**, as shown below



- 30. Change the **Pole Group** to **'Wood'**
- 31. Change the Length Description to '12.5m'
- 32. Change the Strength Description to '5kn'
- 33. Change the Setting Depth to '2m'
- 34. Leave the default Soil Type as 'Good'
- 35. Select the Chlorine Conductor we added earlier by clicking the check-box provided
- 36. Change the Strain Crossarm Group to 'Wood'
- 37. Leave the default Crossarm as 'Strain 3Ph 2700x150x100'
- 38. Change the Pin Crossarm Group to 'Wood'
- 39. Leave the default Crossarm as 'Delta Inter. 3Ph 2700x100x100'
- 40. Enter a Max Deviation Angle for Pin Crossarms of '10'
- 41. Click the option that says Process Field Codes (e.g. %PO, %YT, %YA etc)
- 42. Select the option This is an Existing Profile
- 43. Click **Place Poles** to finalise. Profile 1 should now look like the figure below.







44. We are now going to add in a clearance curve by first selecting the button **Catenaries** above the elevation view drawing. A new window will open



COLDNet Profile – Import Survey Data CSV (Laser Range Finder)



- 45. Under the Max Temperature curve for Circuit 1 11kV Chlorine we are going to select the option Show Curve
- 46. Enter in a Clearance value of '7'
- 47. Select **Close** at the top right-hand corner of the window. The elevation view will now have a 7m clearance curve for the conductor on circuit 1 operating at the maximum temperature. This is indicated by the yellow curve below. If the groundline crosses the yellow clearance curve then the required clearance has not been achieved.



- 48. You may prefer to show the to show the clearance as an offset from the ground. To do this first go back into **Catenaries** and un-select **Show Curve** followed by **Close**
- 49. Next select the option Clearance to Ground and a new window will open



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COLDNet Profile – Import Survey Data CSV (Laser Range Finder)



- 50. Select Add Clearance. A new row in the grid will appear at a Chainage of 0m
- 51. Enter a **Clearance** of **'7'** and select **Save**. The elevation view will still have a 7m clearance curve for the conductor on circuit 1 operating at the maximum temperature. This is indicated by the yellow curve below. If the maximum temperature circuit curve crosses the yellow off-set groundline clearance curve, the required clearance has not been achieved.



52. The pole attributes (**Group, Length, Strength, Setting Depth, Soil Type** etc) can be changed on each pole by clicking the pole of interest in the profile view (indicated by the grey transparent highlighting) and selecting from the dropdown menus provided which will be prepopulated from the user libraries.



53. A summary of the results on each pole can be viewed by clicking the pole of interest in the profile view (indicated by the grey transparent highlighting). The results are then listed on the left-hand side under the pole attributes



54. A list of Defects on the profile are also provided on the right-hand side of the elevation view



55. If the Pole or other attributes are highlighted red than the allowable limits have been exceeded 56. Select File>Save