SonarWiz Quick Guide Sub-Bottom Processing

Revision 1, 2020-02-03

Chesapeake Technology, Inc.

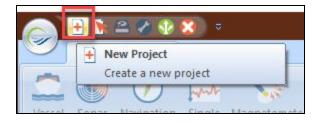
eMail: <u>support@chesapeaketech.com</u> Main Web site: <u>http://www.chesapeaketech.com</u> Support Web site: <u>https://sonarwiz.atlassian.net/servicedesk/customer/portal/3</u>

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1. Click the **New Project** Icon to open the **Create New Project Dialog**



 Enter a Project name and Project Folder, then set the approximate position of the data. This can be done either by entering in a known location or Get from File – navigate to a single file from the project (note: at this point, only one file is needed to set the geodesy, regardless of the number to be processed). Double-check that SonarWiz selects an appropriate Coordinate System for your project.

Create a New P	orojeo					>
Project Name	SBP_	Demo				
Project Folder	C:\SonarWiz-Projects\SBP_Demo					
Approximate I	Projec	t Position				
Latit	ude	42° 48.85772' N	Use G	PS Position	Get Fro	om File
Longit	Longitude 070° 37.0471		W Select from World			s
Coordinate So	ource					
		h if valid, otherwise use ship) ish Position		Constant for e Smoothing	300	pings.
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UTM84-19N		EPSG Code	: 32619		rdinate Sy	
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				0	ĸ	Cancel

It is important to set the **Coordinate Source** properly. If the navigation in your files has already had layback applied, then you should use the **Always Use Fish Position** option. Otherwise, you should select **Always Use Ship Position** and then you will set up the layback computation in SonarWiz after the files are imported.

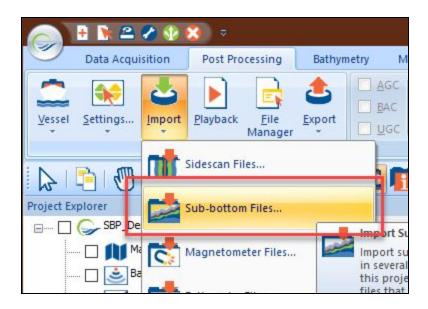
3. Open the **Program Properties** (click the green "chicken-foot" button)



4. Select the Advanced Settings page and review the Default Water Column Sound Velocity and Default Sediment Sound Velocity.

Preferences and Se	ettings			×
	Configure advanced program options. (Exp	perts only)		
General Settings				
0	Use Alt Server Folder		1	
File Options	Remote Helm Display	Remote Helm Applica	ation	
	Broadcast Navigation on Network	◯ SonarWiz.NAV	NavWiz	
SBP Options	Open Last Used Project at Start-Up		Accept commands from remote applications	
0	Warn before deleting files from project		Warn before deleting survey lines from project	
W	Ask user to Confirm when closing SonarWi	iz	Use experimental mosaic drawing algorithm	
Contact Options	Allow Negative X/Y Coordinates Build SSS Waterfall Images with the oldest	data at the bottom	Use older contact report generator	
	Disable CSF limits check		Enable Audit File	
Digitized	Enable recording of navigation data when	no sonar is present	Enable on-the-fly SBP digitizer	
Feature Options	Enable visible off-track alarm in steering wi	ndow	Enable audible off-track alarm in steering window	ŝ.
\bigcirc	5.00		10.00	
Navigation Plot		1500.00	Use Turbo SSS Signal Processing	
•	Default Water Column Sound Velocity m/s	1500.00	Use Multi-Threaded Import	
N N N	Default Sediment Sound Velocity m/s	1600.00	Use Multi-Threaded Bathy Merge	
Magnetometer Options			Disable bathy draw cache building	
Options	Compute CMG using grid bearings (Useful in high latitudes)		Diagnostic Message Thresholds	
3	Sidescan polarity			
Bathymetry	Bipolar (+/-) Unipolar (+)		Logfile 0	
Settings			UDP Msg -1	
0			TRACE 0	
son			TRACE U	
Sonar Color				
Advanced Settings				
			ОК	Cancel

5. In the program, go to the second tab -- Post Processing -- and select **Import** | **Sub-Bottom Files**.



6. Select data files to import. Multiple files can be selected at once.

7. In the **File type Specific Options**... button, you can select particulars to your file format and system. This is often necessary for SEG-Y import to properly extract position and depth.

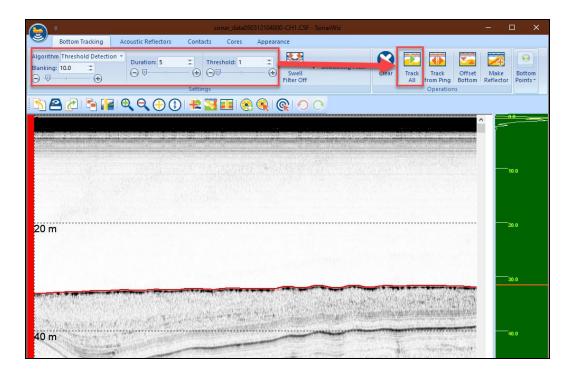
SEG-Y CODA		Innoma SES	o rile Options		
Navigation Source Source Coords Receiver Coords	Amplitude Offset Useful for processing CODA files when 0V on the A/D does not produce a digital value of 0.				
	Usually -2048 works well				
the second s	oint as IEEE Floating Point (C&C AUV)				
Display Images with Byte Swap IEEE Flo	Topographic Correction (post-processing)				
the second of the second second	vay travel time (e.g. Chirp II)				
	oordinates (applies to real-time acquisition only)				
	cal time (applies to real-time acquisition only)				
Read Files using Litt	le Endian (Intel Byte Order)	1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -	500 State 1990		
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Sensor Altitude	99-100 Source Static Correction V	1.000000	0.000000	(m)	
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Event Number	181-182. User defined area V	1.000000	0.000000		
Heave	189-190 User Defined (Heave) V	1.000000	0.000000	(m)	
KP	No KP in File ~	1.000000	0.000000		
Channel Number	13-16. Trace # in original fldrec. (Default) ~	1.000000	0.000000		
Source Position X	73-76. Source X coordinate (default)	1.000000	0.000000		
Receiver Position X	81-84. Receiver X coordinate (default)	1.000000	0.000000		
Datum Separation	49-52 Shot Depth (m) + 109-110 Delay (ms) ~	1.000000	0.000000	(m)	
		L		101	
	Save Profile Load Profile				

8. The sub-bottom data will be loaded into the program. The next few steps get the data adjusted with gains, bottom track and other tools to create a nice image.

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Data Acquisitio	n Post Processing Bath	ymetry Maps View Tools Help	Style - About
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Project Explorer	ά×		
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Property Name	Value sonar_data0905121048		
Name Records	sonar_data0905121048 7921		
Group name	7321		
Vessel Name	Default Vessel		
File Start Time	2009-05-12T14:43:21		
File End Time	2009-05-12T15:01:04		
Map projection	UTM84-19N		
Samples per channel	1024		
Raw Sample Type	Roating Point - None v		
Output	4		
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9. Bottom track. **Right click** on a file and select the **Bottom Track...** option. Set the blanking zone (distance from ping to an area below any apparent noise) and threshold (a

value of change detection) then click the **Track All** button. Typically the lower number finds smaller changes, and could track noise/fish, etc in the water column. A number too high will go past the bottom into the data. In this example, I use a blanking of 10 and threshold of 1.



10. Go through all of the files, using the **next** and **previous** buttons until you reach the end of the files. (See also the **Batch Bottom Track** command)

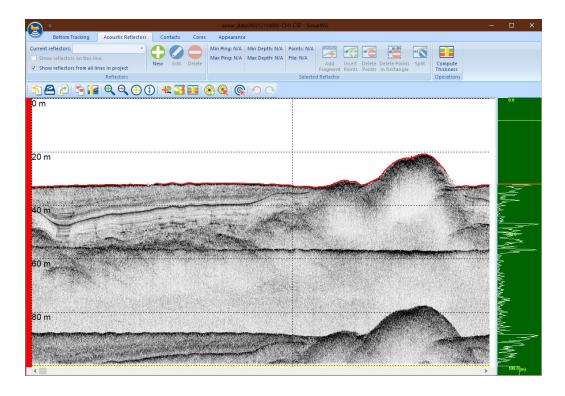


11. Gain controls. Select the **Appearance Tab** in the SBP Analysis Window and click on the **Gain Settings Icon**. This will bring up the gain control window. Note: you only need to do these settings on a single file, as we will use the "Make Like Others" option to copy over the settings later.

*	50	nar_data090512104800-CH1.CSF -	SonarWiz		-		<
Bottom Tracking Acoustic	Reflectors Contacts Cores App	earance					
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Here you will find the Bandpass filter, Ping Stacking, Water Column Blanking option and AGC. Try different settings to see which makes the image look best.

Result:



12. If this is the setting that is to be used, then we will make the others just like this one. Select the file, and go to **Make Others Like This**.

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		BAC	
roperties		UGC	
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		Bottom Track	Ctrl+B
Property	Value	Digitize New Features	Ctrl+D
Name	sonar_ 7921	Open in 3D Viewer	
Records Group name	/921	Make Reflector from Bottom Track	
Vessel Name	Default	Hide	
File Start Time	2009-0		
File End Time	2009-0	Isolate	
Map projection	UTM84	Export image of selected section	
Samples per channel	1024	Flip	
Raw Sample Type	Floating	Move	>
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		Make Others Like This	

A dialog box will show which files to use, and which settings to make. You can select ALL files and Apply All settings, which will take in the gain and other changes made to the first file. Bottom track is not an option, which is why we did that initially.

Projection and smoothing	Gain
Heading source [CMG] Jeading constant [300] Heading offset [P: 0.0; S: 0.0] Apply pitch if available [Yes]	Gain Gain Gorge Constant Const
Offsets ☑ Offsets: ④ Absolute [X: 0.0; Y: 0.0] ○ Last relative [Off; P/S: 0.0; F/A: 0.0] ☑ Map corrected [Off]	SSS only BAC settings [Off; Pings: 30; Avg.: 20] EGN [Off; N/A] Nadir filter [Off; Angle: 20] Destripe filter [Off; Pings: 50]
Layback □ Layback settings [Off; Cable - %; 0%] □ Sheave offsets [On; X: 0.00; Y: 0.00; Z: 0.00] Display	Static gains [P: 0.0; S: 0.0] SBP only Bandpass filter [Off] Swell filter [Disabled]
Uspiay ☐ Channel display [Both] ☐ Transparency [Off; Range; 0.0] ☑ Displayed range [All]	Sound Velocity
Apply all settings	SV In Sediment [Src: File; Custom Value: 1500.00]
es to modify]Check allCheck SSSCheck LF SSSCheck	HF SSS Check SBP Sort by time
C:\SonarWiz-Projects\S8P_Demo\CSF\sonar_data090512 C:\SonarWiz-Projects\S8P_Demo\CSF\sonar_data090512 C:\SonarWiz-Projects\S8P_Demo\CSF\sonar_data090512 C:\SonarWiz-Projects\S8P_Demo\CSF\sonar_data090512 C:\SonarWiz-Projects\S8P_Demo\CSF\sonar_data090512 C:\SonarWiz-Projects\S8P_Demo\CSF\sonar_data090512 C:\SonarWiz-Projects\S8P_Demo\CSF\sonar_data090512 C:\SonarWiz-Projects\S8P_Demo\CSF\sonar_data090512	2111200-CH1.CSF 2113600-CH1.CSF 2123000-CH1.CSF 2123400-CH1.CSF 2125100-CH1.CSF

13. The next step is to vertically align the sub-bottom data to a bathymetric surface. Right-click the **Grids** branch of the **Project Explorer** and select **Add/Import Grid Files...** to load your grid into the program.

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	Add/Import Grid Files
	Create New Grid Reload All Grids
	New SubGroup

You can adjust the shaded relief effect of the grid in the View menu.

Data Acquisition	9 😫) =				SBP_Demo.mml - SonarWiz 7 V7.05.07 x64 Idle	- 🗆 ×
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	Display Value W00181_4m_MLL					

14. Click on the Post Processing tab | Datum Align to Bathy Grid... command



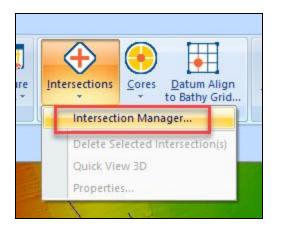
Select the bathymetry grid from the drop-down menu and select all of the sub-bottom files as shown.

Choose a grid:	W00181_4m_MLLW_70	of7_AOI_BATHY-S6	~
Select the SBP	profiles for Processing	Chec	k All
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	OK	Cancel	

Click OK.

15. The next step is to **Compute Intersections** between our SBPs. This allows SonarWiz to visualize intersecting profiles and their feature markers in the digitizer. It also sets up navigation jumps between the intersecting lines (double-click the intersection line in the digitizer).

Open the Intersection Manager from the Post Processing ribbon

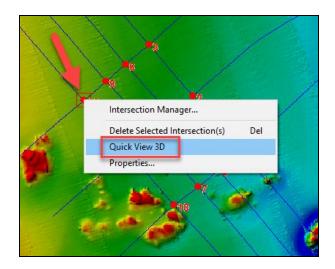


Click the **Compute** button

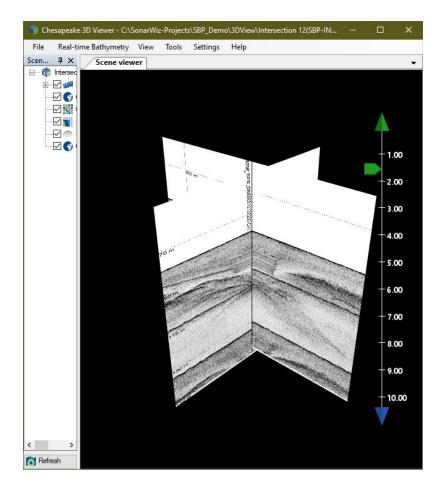
ID	▼ S	Text	File 1	Row 1	File 2	Row 2	Lat	Lon	x	Y	OK
L	~	7	sonar data090512104800-CF	3267	sonar data090512123400-CF	3082	42° 49.21092' N	070° 37.48349' W	367184	4742127	Cancel
2	¥	7	sonar_data090512104800-CH	4392	sonar_data090512125100-CF	2251	42° 49.33325' N	070° 37.63230' W	366986	4742357	Contect
3	~	7	sonar data090512104800-CH	5468	sonar data090512131000-CF	4113	42° 49.45093' N	070° 37.77400' W	366797	4742579	
+	v	V	sonar_data090512111200-CF	4895	sonar_data090512123400-CF	2591	42° 49, 16255' N	070° 37.54866' W	367094	4742039	[a
5	~	7	sonar_data090512111200-CF	3779	sonar_data090512125100-CF	2692	42° 49.28819' N	070° 37.70092' W	366891	4742275	Compute.
	~	7	sonar_data090512111200-CF	2813	sonar_data090512131000-CF	3604	42° 49.40421' N	070° 37.84647' W	366697	4742494	Delete
7	V	7	sonar_data090512113600-CH	3380	sonar_data090512123400-CF	2183	42° 49.12331' N	070° 37.60999' W	367009	4741968	
8	4	7	sonar_data090512113600-CF	4553	sonar_data090512125100-CF	3069	42° 49.24941' N	070° 37.76302' W	366805	4742205	Select A
,	V	7	sonar_data090512113600-CH	5627	sonar_data090512131000-CF	3174	42° 49.36391' N	070° 37.90670' W	366613	4742421	
0	V	~	sonar_data090512120200-CF	5252	sonar_data090512123400-CF	1714	42° 49.07915' N	070° 37.68503' W	366905	4741888	
1	~	V	sonar_data090512120200-CH	4182	sonar_data090512125100-CF	3527	42° 49.20234' N	070° 37.83364' W	366707	4742120	Export
12	~	7	sonar_data090512120200-CH	3219	sonar_data090512131000-CF	2679	42° 49.31811' N	070° 37.97569' W	366518	4742338	Report

Click **OK** to close the Intersection Manager

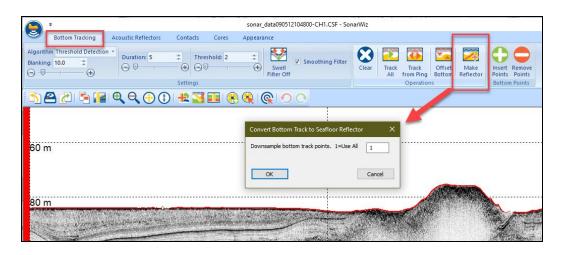
16. To visualize how your datum alignment worked, **Right-Click** an **intersection marker** in the map view (or in the Project Explorer) and select **Quick View 3D** command



This will open the 3D viewer in intersection mode where you can examine the vertical alignment of your intersecting profiles.



17. In the **Sub-bottom Analysis** window, select the **Bottom Track** tab and convert the bottom track to a seafloor reflector by clicking on the **Make Reflector** button.

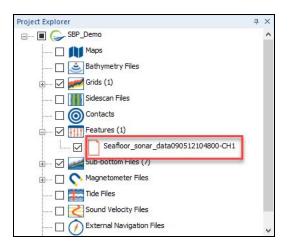


Set the **Downsample bottom track points** value to **1 (All)** and click **OK**.

18. Switch to the **Acoustic Reflectors** tab and note that the new seafloor reflector has been added to the drop down list:

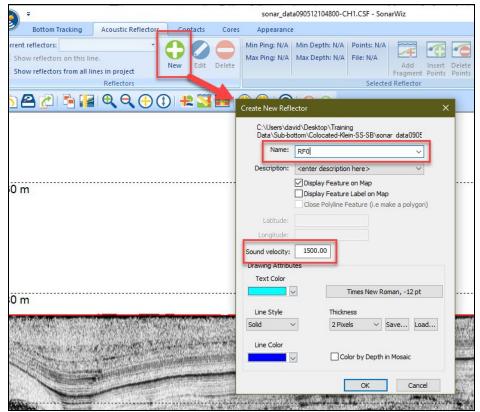
(- F -				sonar_data0	90512104800-CH1.
Bot	tom Tracking	Acoustic Reflectors	Contacts	Cores	Appearance	
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It is also listed in the **Project Explorer** under the **Features** branch:

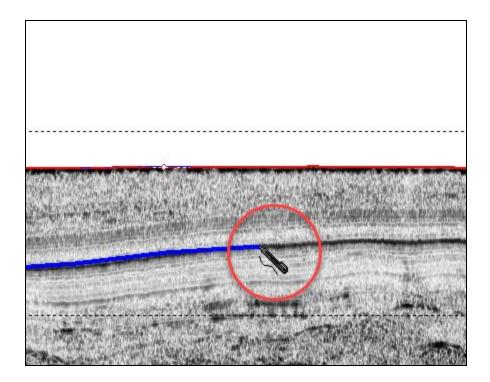


19. To digitize an **Acoustic Reflector** in the sub-bottom analysis window, click the **New** button. This will open the **Create New Reflector** dialog where you can set the Name, sound velocity and line properties of the reflector. The sound velocity entered here is used to compute the depth of this reflector below the seafloor.

Note: One or more features that have the same **Name** are implicitly considered observations of the same horizon. Later, you can export features by name and all of the observations will be collected together and treated like a single unit.



Click **OK** to start digitizing the new reflector.



Your cursor will turn into a pen and you use the **left mouse button** to trace the reflector in the profile. **Right-Click 1 time** to lift the pen and move to a new location to start tracing the same reflector again. **Right-Click 2 times** to finish drawing and close the feature.

When you close the feature drawing (**Right-Click 2 times**), you will see your feature drawn in the display. The feature will also be listed in the **Features** branch of the **Project Explorer** and in the **Feature drop-down** list of the **SBP Analysis Window**.

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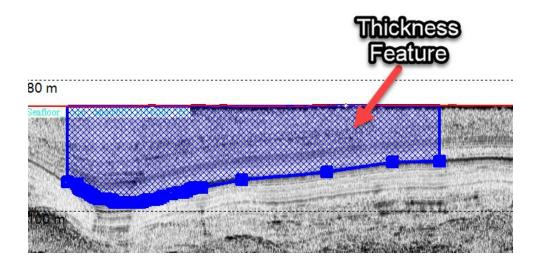
20. **To Edit a feature**. Select the feature with the mouse and use the toolbar icons in the Acoustic Reflector ribbon menu to modify the vertices.



21. To Compute the Thickness between two features. Select the Compute Thickness icon in the Acoustic Reflector ribbon menu. Then specify the Top and Bottom reflectors. Remember you can convert your bottom track to a reflector (See Step 17 above).

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Top (Ref	erence) Reflector	Seafloor sonar data090512104800-C	H1. digitized s 🗸			
Top (Ref	erence) Reflector	Seafloor_sonar_data090512104800-C	H1, digitized s \vee			
Comp	ute thickness using					57.4
Comp		Seafloor_sonar_data090512104800-C RF0, <enter description="" here="">, 58 poi</enter>				57.4
Comp	ute thickness using single selected					57.4
Comp Only a bottor	ute thickness using i single selected m reflector		nts ~			
Comp only a bottor	ute thickness using single selected m reflector ute thickness using all in	RF0, <enter description="" here="">, 58 points of the section of the sec</enter>	nts v			 57.4
Comp only a bottor	ute thickness using single selected m reflector ute thickness using all in	RF0, <enter description="" here="">, 58 poi</enter>	nts v			
Comp only a bottor Comp	ute thickness using i single selected m reflector ute thickness using all int ute thickness using all int	RF0, <enter description="" here="">, 58 points and the section of the se</enter>	nts v			
Comp only a bottor Comp	ute thickness using single selected m reflector ute thickness using all in	RF0, <enter description="" here="">, 58 points and the section of the se</enter>	nts v			
Comp only a bottor Comp	ute thickness using i single selected m reflector ute thickness using all int ute thickness using all int ple reflector points. (1=	RF0, <enter description="" here="">, 58 points and the section of the se</enter>	nts v			

This will produce a **Thickness** feature which you can export later in the workflow.



22. Once you have digitized all of your acoustic horizons and computed thicknesses between horizons, you can export these features to spreadsheets and 3D vector files from the **Feature Manager**. Open the **Feature Manager** from the **Post Processing Ribbon menu**.

uniber or	Features	intrioje	Nu Nu	mber of Features Enabled: 20				
🗖)	□	ID	Name	Description	Acoustic File	Pts	^	ОК
~	~	1	_sonar_data090512104	8 digitized seafloor	sonar_data090512104800.xtf	7921		
	~	17	or_sonar_data09051210	04 reflector thickness	sonar_data090512104800.xtf	108		Cancel
2		19	RF0	<enter description="" here=""></enter>	sonar_data090512104800.xtf	152		Delete Feature(s)
~		20	RF0	<enter description="" here=""></enter>	sonar_data090512104800.xtf	22		Deleteredule(s)
V		21	RF0	<enter description="" here=""></enter>	sonar_data090512104800.xtf	4		Edit Feature
~		22	RF0	<enter description="" here=""></enter>	sonar_data090512104800.xtf	6		
~		23	RF0	<enter description="" here=""></enter>	sonar_data090512104800.xtf	23		Select All
~		24	RF0	<enter description="" here=""></enter>	sonar_data090512111200.xtf	32		
~		25	RFO	<enter description="" here=""></enter>	sonar_data090512111200.xtf	64		Export
2		26	RF0	<enter description="" here=""></enter>	sonar_data090512111200.xtf	75		
V		27	RF0	<enter description="" here=""></enter>	sonar_data090512113600.xtf	164		Export SBP DXF Pro
~		28	RF0	<enter description="" here=""></enter>	sonar_data090512113600.xtf	6		Import
2		29	RFO	<enter description="" here=""></enter>	sonar_data090512113600.xtf	15		Import
		30	RF0	<enter description="" here=""></enter>	sonar_data090512120200.xtf	7		Sort
~		31	RFO	<enter description="" here=""></enter>	sonar_data090512120200.xtf	8		bortan
~		32	RFO	<enter description="" here=""></enter>	sonar_data090512120200.xtf	129		Backup
~		33	RFO	<enter description="" here=""></enter>	sonar_data090512123400.xtf	93		1
~		34	RF0	<enter description="" here=""></enter>	sonar_data090512125100.xtf	23		Recompute All
1		35	RFO	<enter description="" here=""></enter>	sonar_data090512125100.xtf	73	~	
< TT	-							Preferences
DXF Expor		Expor	t 3D Use Description a (unchecked uses		Deleted Features Display Deleted Features			

23. **To Export a Thickness feature** as a table of positions and thickness values click the **Export** button from the **Feature Manager**.

Feature Export X
Export by feature name All features with the same name will be exported to a single file. Destination Folder C:\SonarWiz-Projects\SBP_Demo\SHP\ Browse
Export Format ASCII Simple Thickness
Add Offsets to Z Antenna Height Tide SBP Datum Separation
Feature Names Select all Export all Seafloor features to a single file
RF0 Seafloor_sopar_data090512104800-CH1 THK000 Seafloor_sopar_data090512104800-CH1-RF0
Cancel OK

- Select Export by Feature name
- Export Format: ASCII Simple Thickness
- SBP Datum Separation Checked

Then **Select the THK (thickness)** feature you want to export. Make a note of the output location.

1	A	В	С	D	E
1	х	Y	Thickness	Line #	
2	367757.2	4741474	12.25	sonar_data090512104800	
3	367756.7	4741475	12.34	sonar_data090512104800	
4	367755.1	4741477	12.62	sonar_data090512104800	
5	367753.5	4741479	13.72	sonar_data090512104800	
6	367751.8	4741481	14.34	sonar_data090512104800	
7	367750.2	4741483	14.99	sonar_data090512104800	
8	367748.5	4741486	15.03	sonar_data090512104800	
9	367746.9	4741488	15.26	sonar_data090512104800	
10	367745.3	4741490	15.63	sonar_data090512104800	
11	367743.6	4741492	15.65	sonar_data090512104800	
12	367742	4741494	15.66	sonar_data090512104800	
12	267740 2	4741496	15.6	copar data090512104800	

The program will export a CSV file containing the thickness estimate down the profile.

24. To Create a Depth Grid of an Acoustic Horizon click the Export button in the Feature Manager.

ature Export	
Export by fe	All features with the same name will be exported to a single file.
Destination Folder	\SonarWiz-Projects\SBP_Demo\SHP\ Browse
Export Format	XYZ Text 🗸
Add Offsets to Z	Antenna Height Tide SBP Datum Separation
eature Names	
Select all	Export all Seafloor features to a single file
	_data090512104800-CH1
THK000 Seafloo	r_sonar_data090512104800-CH1-RF0
	Cancel OK

- Select Export by Feature name
- Export Format: XYZ Text

- SBP Datum Separation Checked (This is important because we adjusted the depth of our profiles using a datum grid)

Then **Select the horizon feature** you want to export. Make a note of the output location.

The program will export a CSV file containing the (easting,northing,depth) coordinates of the horizon observations along all profiles where it was recorded.

1	367765.81,4741462.50,100.33	
2	367758.99,4741471.66,102.30	
3	367753.78,4741478.63,104.61	
4	367748.21,4741486.01,106.46	
5	367739.62,4741497.20,107.96	
6	367729.89,4741509.53,107.39	
7	367719.77,4741521.84,105.65	
8	367711.32,4741531.64,105.65	
9	367705.41,4741538.27,107.96	
10	367697.24,4741547.20,107.39	
11	367687.48,4741557.61,105.31	
12	367674.83.4741570.92.106.12	

25. To Create a Grid from the XYZ file. Right-Click Grids in the Project Explorer and select the Create New Grid... command.

Project Explorer 4	×	Color
🔲 達 Bathymetry Files	^	Datatyp
Grids (1) Grids (1) Add/Import Grid Files	-	Sub-bo
Create New Grid		
Reload All Grids		
New SubGroup		
I THK000 Seafloor_sonar_data090	5	

26. In Gridding Setup dialog:

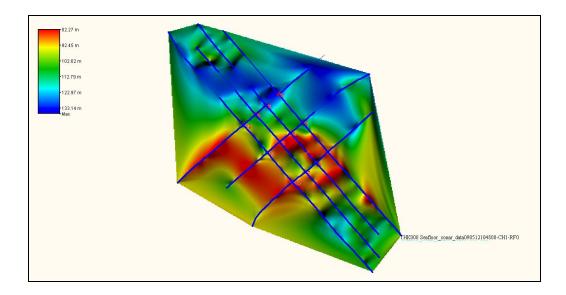
Internal External XYZ File C:\So	narWiz-Projects\SBP_Demo\SHP\RF0.TXT	
West 364830.00 Grid Cell Size 5	North 4743200.00 General Select on Plan View East 36 South 4741110.00 Output Grid File Root Name RF0	Write Depth Values As Write Depth Values As Positive Numbers Negative Numbers When Grid is Complete Add Grid to Project Open in 3D Viewer Open Containing Folder
Select Primary Grid Surface Type YZFile	Select Grid Algorithm Mean Median Networke Distance Weighted Natural Neighbor Trearest neighbor	Select Optional Grid Outputs

- Select **External XYZ File**, then enter the path to the XYZ file you exported above.

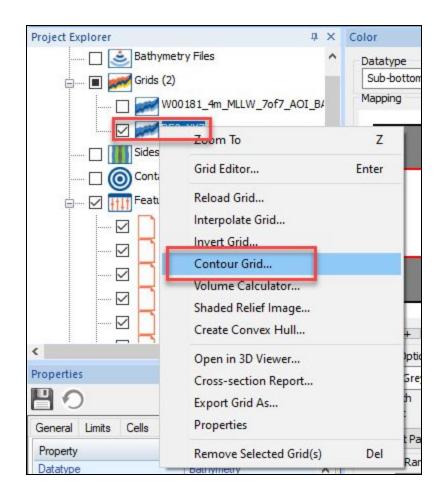
- Select **Grid Cell Size** fairly large. (I recommend a spacing about 1/10th the distance between tracklines to start)

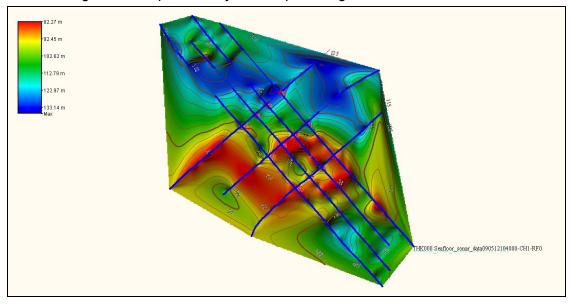
- Select **Natural Neighbor** as the gridding algorithm. This is best for smooth interpolation. But it is very slow, so adjust the cell size accordingly!

The resulting grid of the horizon is added to the project:



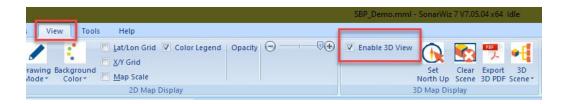
27. Create contours of the depth horizon grid by **Right-Clicking** the grid and selecting the **Contour Grid...** command



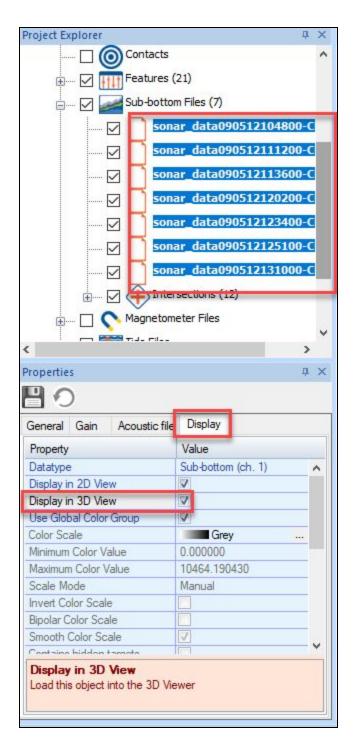


The resulting vector map is overlayed on top of the grid:

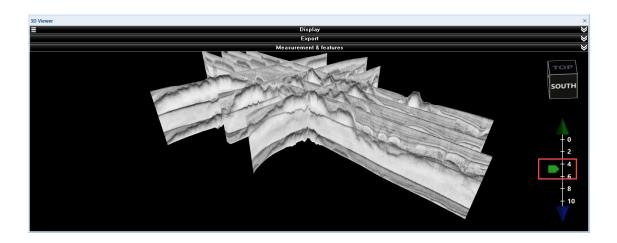
28. To Visualize your SBP and Horizon grids in the 3D Viewer first enable the 3D Window in the View Ribbon Menu.



29. Select one or more of the SBP profiles you want to visualize in 3D and check the **Display in 3D View** option found in the **Display** property of the profiles.



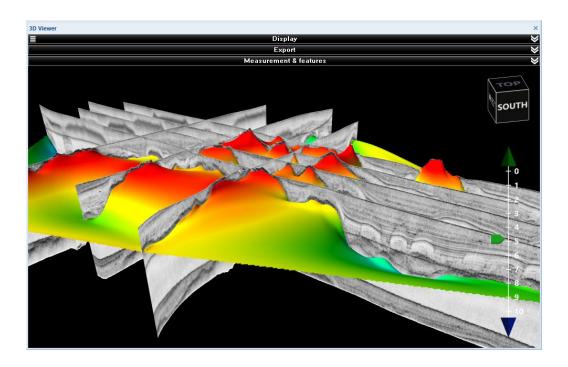
The profiles will appear in the 3D View. Use the Green Handle to control the vertical exaggeration.



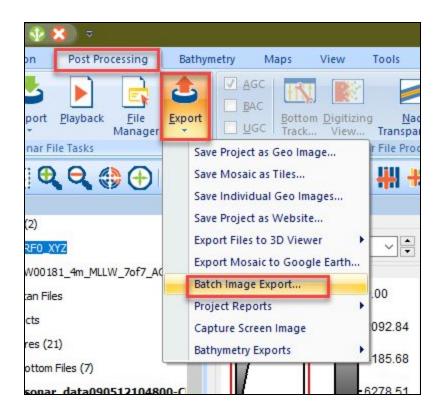
30. You can add elevation grids to the 3D display as well, including the Acoustic Horizon grid we made earlier. **Select the grids** you want to add to the 3D display, and check the **Display in 3D View** property found on the **Display** tab in the **Properties Window**.

		×
🚊 🔳 🐖 Grids (2)		^
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)181_4m_MLLW_7of7_AOI_E	
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🗹 🎹 Features	(21)	
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Property Datatype	splay Value Bathymetry	×
Property Datatype Disolav in 2D View	splay Value Bathymetry	×
Property Datatype Display in 2D View Display in 3D View Use Global Color Group Color Scale	splay Value Bathymetry V DefaultColomap	×
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Property Datatype Display in 2D View Display in 3D View Use Global Color Group Color Scale Minimum Color Value Maximum Color Value	splay Value Bathymetry DefaultColomap 82.272842 133.139130	*
Property Datatype Display in 2D View Display in 3D View Use Global Color Group Color Scale Minimum Color Value Maximum Color Value Scale Mode	splay Value Bathymetry V DefaultColomap 82.272842	
Property Datatype Display in 2D View Display in 3D View Use Global Color Group Color Scale Minimum Color Value Maximum Color Value Scale Mode Invert Color Scale	splay Value Bathymetry DefaultColomap 82.272842 133.139130	*
Property Datatype Display in 2D View Display in 3D View Use Global Color Group Color Scale Minimum Color Value Maximum Color Value Scale Mode Invert Color Scale Bipolar Color Scale	splay Value Bathymetry DefaultColomap 82.272842 133.139130 Auto - All Data	
Property Datatype Display in 2D View Display in 3D View Use Global Color Group Color Scale Minimum Color Value Maximum Color Value Scale Mode Invert Color Scale	splay Value Bathymetry DefaultColomap 82.272842 133.139130	×

The grid will appear vertically aligned with the sub-bottom profiles



31. To export sub-bottom profiles as images use the Post Processing | Export | Batch Image Export command.



This opens the Batch Image Export dialog where you can set the output format and resolution of the profiles.

C:\SonarWiz-Projects\	SBP Demo	Images\		Browse
Output Image Type	por _ocino (SSS Export Re	solution	
OBMP OJPEG (Standard	High	Options
xport region:				
(All data)			~	Regions
C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project	ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem	no\CSF\sonar_dai no\CSF\sonar_dai	ta090512111 ta090512113	200-CH1.CSF 600-CH1.CSF
C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project	ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem	no/CSF\sonar_dai no/CSF\sonar_dai no/CSF\sonar_dai no/CSF\sonar_dai no/CSF\sonar_dai	ta090512111 ta090512113 ta090512120 ta090512123 ta090512123 ta090512125	500-CH1.CSF 200-CH1.CSF 500-CH1.CSF 200-CH1.CSF 400-CH1.CSF 100-CH1.CSF
C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project C:\SonarWiz-Project	ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem ts\SBP_Dem	no/CSF\sonar_dai no/CSF\sonar_dai no/CSF\sonar_dai no/CSF\sonar_dai no/CSF\sonar_dai	ta090512111 ta090512113 ta090512120 ta090512123 ta090512123 ta090512125	500-CH1.CSF 200-CH1.CSF 500-CH1.CSF 200-CH1.CSF 400-CH1.CSF 100-CH1.CSF

Note that you control the vertical and horizontal resolution of SBP Images in the **Program Properties | SBP Options page** which can be accessed from the **green chicken-foot menu** or from the **Preferences** icon in the **Appearance** tab of the **SBP Analysis window**.

The resulting images (here scaled with 10x VE)

