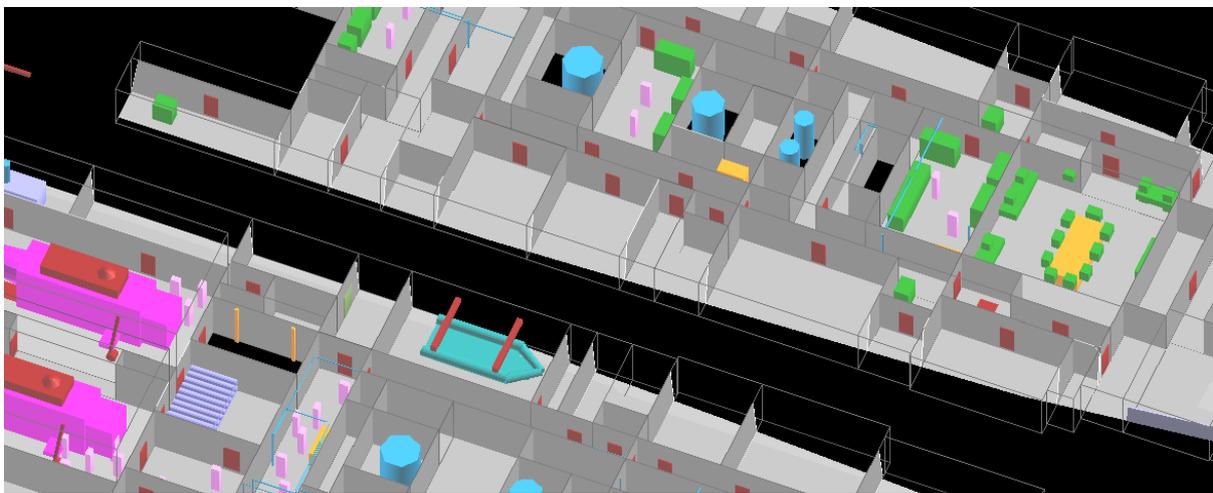


# Survive 2022.12 - What's New?

## Detailed Ship Editor

- The Help File has been overhauled and guidance has been included on this new feature
- Doors and hatches can now be modelled (portals)
- Full customisation of hull and superstructure now possible: shape, material and thickness.
- Individual crew members can be created as a system to model body parts
- Improved customisation of internal spaces
- Greater customisation of equipment and plates
- Can directly edit the Ship File format (\*.bsh), allowing smoother transition to analysis following design adjustment.

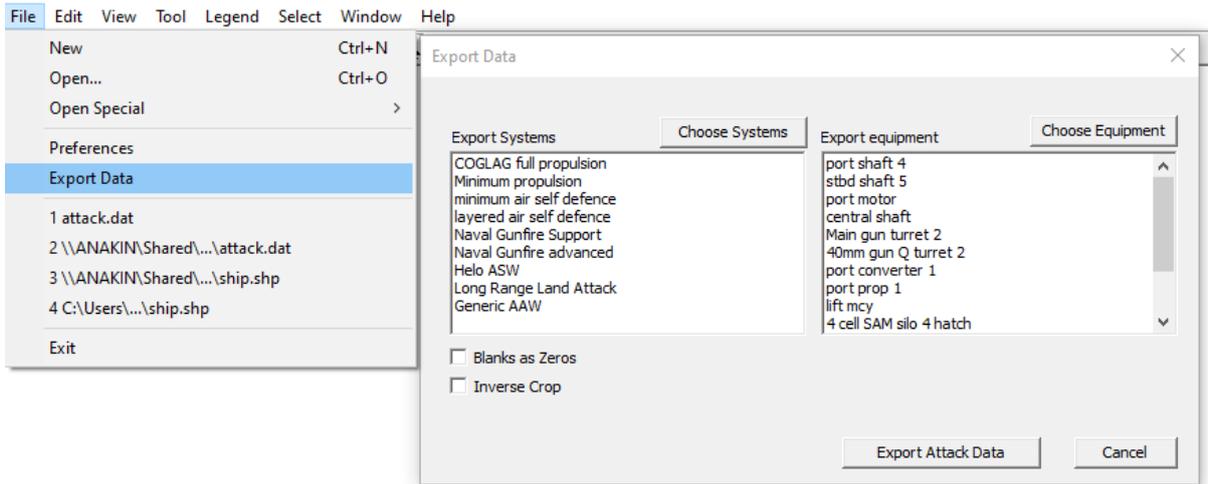
A screenshot of the software interface showing a ship hull cross-section on the left and a control panel on the right. The control panel includes input fields for 'Bow Point' (X, Y, Z), 'Section Number' (6 of 18), and 'Points Number' (1 of 25). It also has buttons for 'Insert', 'Delete', and 'Mirror in Y=0.0'. Below the control panel is a table of hull points.

No	X Coord..	Y Coord..	Z Coord..	Thickne..	Material
1	105.000	0.000	-0.400	15.000	Hard Steel (Grade D32)
2	105.000	1.150	-0.280	15.000	Hard Steel (Grade D32)
3	105.000	2.710	0.070	10.000	Hard Steel (Grade D32)
4	105.000	4.420	0.800	10.000	Hard Steel (Grade D32)
5	105.000	5.610	1.930	10.000	Hard Steel (Grade D32)
6	105.000	6.440	3.700	10.000	Hard Steel (Grade D32)
7	105.000	7.090	6.000	10.000	Hard Steel (Grade D32)
8	105.000	7.680	8.600	10.000	Hard Steel (Grade D32)
9	105.000	8.000	10.400	10.000	Hard Steel (Grade D32)
10	105.000	8.190	11.720	12.000	Hard Steel (Grade D32)
11	105.000	7.680	13.800	12.000	Hard Steel (Grade D32)
12	105.000	6.860	13.800	12.000	Hard Steel (Grade D32)
13	105.000	0.000	13.800	12.000	Hard Steel (Grade D32)
14	105.000	0.000	13.800	12.000	Hard Steel (Grade D32)
15	105.000	-6.860	13.800	12.000	Hard Steel (Grade D32)
16	105.000	-7.680	13.800	12.000	Hard Steel (Grade D32)
17	105.000	-8.190	11.720	10.000	Hard Steel (Grade D32)
18	105.000	-8.000	10.400	10.000	Hard Steel (Grade D32)
19	105.000	-7.680	8.600	10.000	Hard Steel (Grade D32)
20	105.000	-7.090	6.000	10.000	Hard Steel (Grade D32)
21	105.000	-6.440	3.700	10.000	Hard Steel (Grade D32)
22	105.000	-5.610	1.930	10.000	Hard Steel (Grade D32)
23	105.000	-4.420	0.800	10.000	Hard Steel (Grade D32)

# Export Data

When viewing the results of an analysis in Survive the user can now export the results to get more information in XML format. Extra data that is available includes:

- Text format of results shown in View>Vulnerability Statistics
- Attack start and detonation locations
- Holing area for each attack (above and underwater)
- System and equipment vulnerability for each attack



Attack Number	Shot Number	Start X	Start Y	Start Z	Hit/Miss	Whipped	Detonatio n X	Detonatio n Y	Detonatio n Z	Whip Factor	pHR	uWH	FZ	Sunk	hMCXDam	hMCXUS	hMFidLen	aWH	shock Factor	COGLAG full propulsion	Minimum propulsion	minimum air self defence
1	1	-1.65	-15	6.3	1	0	-1.65	-15	6.3	0	0	0	0	0	1	1	0	0	0			
2	1	-1.65	-15	10.77	1	0	-1.65	-15	10.767	0	0	0	0	0	1	1	0	0	0			
3	1	-1.65	-15	15.23	1	0	-1.65	-15	15.233	0	0	0	0	0	1	1	0	0	0			
4	1	-1.65	-15	19.7	1	0	-1.65	-15	19.7	0	0	0	0	0	1	1	0	0	0			
5	1	-1.65	-15	24.17	1	0	-1.65	-15	24.167	0	0	0	0	0	1	1	0	0	0			
6	1	-1.65	-15	28.63	1	0	-1.65	-15	28.633	0	0	0	0	0	1	1	0	0	0			
7	1	-1.65	-15	33.1	1	0	-1.65	-15	33.1	0	0	0	0	0	1	1	0	0	0			
8	1	3.59	-15	6.3	2	0	3.59	-6.047	6.3	0	0	27.57	0	0	1	1	0	96.336	0	1		1
9	1	3.59	-15	10.77	1	0	3.59	-15	10.767	0	0	0	0	0	1	1	0	0	0			
10	1	3.59	-15	15.23	1	0	3.59	-15	15.233	0	0	0	0	0	1	1	0	0	0			
11	1	3.59	-15	19.7	1	0	3.59	-15	19.7	0	0	0	0	0	1	1	0	0	0			
12	1	3.59	-15	24.17	1	0	3.59	-15	24.167	0	0	0	0	0	1	1	0	0	0			
13	1	3.59	-15	28.63	1	0	3.59	-15	28.633	0	0	0	0	0	1	1	0	0	0			
14	1	3.59	-15	33.1	1	0	3.59	-15	33.1	0	0	0	0	0	1	1	0	0	0			
15	1	8.829	-15	6.3	2	0	8.829	-6.487	6.3	0	0	26.12	0	0	1	1	0	19.894	0	1		
16	1	8.829	-15	10.77	1	0	8.829	-15	10.767	0	0	0	0	0	1	1	0	0	0			
17	1	8.829	-15	15.23	1	0	8.829	-15	15.233	0	0	0	0	0	1	1	0	0	0			
18	1	8.829	-15	19.7	1	0	8.829	-15	19.7	0	0	0	0	0	1	1	0	0	0			
19	1	8.829	-15	24.17	1	0	8.829	-15	24.167	0	0	0	0	0	1	1	0	0	0			
20	1	8.829	-15	28.63	1	0	8.829	-15	28.633	0	0	0	0	0	1	1	0	0	0			
21	1	8.829	-15	33.1	1	0	8.829	-15	33.1	0	0	0	0	0	1	1	0	0	0			
22	1	14.069	-15	6.3	2	0	14.069	-6.97	6.3	0	0	2.658	0	0	1	1	0	18.903	0	1		
23	1	14.069	-15	10.77	2	0	14.069	-6.97	10.767	0	0	0	0	0	1	1	0	15.19	0	1		1

## Casualty Statistics

If human type equipment is modelled in a ship, casualty statistics can now be calculated and will be shown in the Vulnerability Statistics window. Using the system of body parts representation of crew enabled by the Detailed Ship Editor will allow further data to be generated.

Systems   Equipment   Casualties   Individual Crew Data			
Display	Body All	Attack Number	
		Shot Number	
	Average	Average %	Maximum
Killed	2.75	2.01	16.00
Severely Injured (T1)	1.23	0.90	5.00
Seriously Injured (T2)	2.13	1.56	13.00
Slightly Injured (T3)	1.17	0.86	6.00
Uninjured	129.71	94.68	137.00
Mobile	130.88	95.54	137.00
Incapacitated	6.12	4.46	21.00

Systems   Equipment   Casualties   Individual Crew Data												
Attack	Crew ID	Cre...	Assigned ...	Compa...	% chance	of being	[injury...	consid...	% chance	of being	[injury lev	^
					Blast	Frag	KE	Shock	Head	Arm 1	Arm 2	
1	61	Cre...	Uninjured	Compar...	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	
1	62	Cre...	Uninjured	Compar...	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	
1	63	Cre...	Dead	steering...	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
1	64	Cre...	Uninjured	Compar...	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	
1	65	Cre...	Uninjured	Compar...	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	
1	66	Cre...	Uninjured	Compar...	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	
1	67	Cre...	Slight	Compar...	31.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
1	68	Cre...	Slight	Compar...	31.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
1	69	Cre...	Slight	Compar...	31.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
1	70	Cre...	Uninjured	Compar...	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	
1	71	Cre...	Uninjured	Compar...	100.00%	100.00%	100.00%	100.00%	0.00%	0.00%	0.00%	

## Additional Changes

Additional changes as part of on-going maintenance:

- Improvements to hull editing feature (included with Detailed Ship Editor).
- Improved robustness when moving between stages in the ship building wizard.
- Rotate equipment feature now available.
- Cropping of plates to hull not working in some cases now fixed.
- Fix to prevent hull being shown when in separated decks mode in some cases.
- System list was not updating correctly when equipment changes systems. Now fixed.
- Deck insertion on Stage 3 made more intuitive.