

Sounding Better!

3D OBJ File Support in Hardware Setup

By Rizwan Shariff

The HYPACK® HARDWARE program allows you to load high quality 3D OBJ files to represent the Vessel (Boat) and other hardware devices attached to it, and visualize it in three dimensions with offsets.

Load 3D OBJ files as follows:

1. Add a new device to the Boat from the list of available devices in the Survey Devices tab.

Adding Devices

😓 Hardware	Mobile Survey Device	offsets	Vessel Sha	pe	All Offsets				
Boat HYPACK File Simulation ADCP Driver	Available All Devic		\sim	1		Installed			
	Version	Version		Version	Add -	dd> HYPACK File Simulation			
AIS Interface	3D LR Indicator	3D LR Indicator				AIS Interface			
	ADCP Driver	19.1.0.0		< Ref	nove				
	Advanced Navigation	Advanced Navigation INS							
	AIS Interface	14.0.2.6		Nav. Sta	. Stations				
	AIS Tide Receiver	AIS Tide Receiver							
	Allied Signal LAZ-410	14.0.1.3		Sett	ıp				
	Anemometer Driver	Anemometer Driver							
	Applanix POS M/V	Applanix POS M/V							
	Applied Microsystem	Applied Microsystems Sound V							
	Atlas Deso 14	17.2.0.0							
	Atlas Deso 15/17 GL	Atlas Deso 25							
	Auto Lines	20 1 0 0							
	Autopilot	Autopilot							
	AUTOTG AANDREAA	14.0.1.1							
	B.F.Lindholm OPC C	B.E.Lindholm OPC Client Driver							
	Barge Position		14.0.1.1						
	Bucket to Matrix Cel	s	16.0.1.1	v					
	View	ription		-	Nama				
	O DLL Name				Name				
					Driver				
	Rescan Driver List								
	Functions				Options				

2. In the Offsets tab, select the device and click [Device 3D Shape Options]. This opens the Device 3D Shapes Options dialog.

3D Shape Options Dialog

Device 3D Shape	e Options		×
3D Shape File			
C: HYPACK 202	Browse		
These offsets on Position	ly affect the 3D	model, not your vessel of	fsets.
Starboard	Forward	Vertical	
0.0	0.0	0.0	
Rotation			
Yaw	Pitch	Roll	
0.0	0.0	0.0	
Scale			
х	Y	Z	
1.0	1.0	1.0	
Default		OK Cancel	Apply

- 3. Load your 3D shape file.
 - a. Click [Browse] and search for the 3D OBJ files on your system.

Load	ling your OBJ Shape File	ᡂ 3D Shape File	
Tip:	To list only 3D	← → ✓ ↑ 📙 « Test(Downloaded) → SpeedBoat_v01_L3. マ ♂ Search S	SpeedBoat_v01_l
OBJ files in the current location, select OBJ Files from the Supported Files drop-down.	Organize 🔻 New folder	== -	
	current location, select OBJ Files from the Supported Files drop-down.	Personal Name Size Shapes \$10634_SpeedBoat_v01_LOD3 3,471 KB SpeedBoat_v01_1 \$10634_SpeedBoat_v01_LOD3 3,471 KB	
b.	Select the 3D OBJ file and click [OK]. The OBJ Editor button will become visible.	Network File name: Arrow Suppor	ted Files ted Files es (*.3od) es (*.3ds) es (*.obj) s (*.*)

Configuring the OBJ Shape in the OBJ Editor

- 4. Modify the OBJ shape as needed:
 - a. Launch the OBJ Editor. Click [OBJ Editor].
 - If you have a texture file (*.MTL), you can select it and click [OK].
 - If you don't have a texture file for the object, or choose not to use one, click [Cancel]. The shape then appears in the OBJ Editor.
 - b. **Modify the object properties.** Select colors and shapes, change object orientation or scale, and apply any offsets.

Device 3D Shape Options								
3D Shape File								
C:\Users\rsharif	_Files\]	Browse						
These offsets on	ly affect the 3D	model, not your vess	el offsets.					
Position				Obj Editor				
Starboard	Forward	Vertical						
0.0	0.0	0.0						
Rotation								
Yaw	Pitch	Roll						
0.0	0.0	0.0						
Scale								
х	Y	Z						
1.0	1.0	1.0						
Default		OK Car	icel	Apply				

- *Tip:* If the results are unsatisfactory, click [Reset] to return to the original settings, .
 - c. Save your changes (click [Save]) and close the OBJ Editor.

OBJ Editor



5. **To preview the results in HARDWARE**, click [Apply] In the 3D Shape Options Dialog. (Optional)

If you are unsatisfied, adjust your settings and click [Apply] again.

OBJ Preview in HARDWARE

File Options Help											
Hardware Hardware HYPACK File Simulation HYPACK File Simulation ADCP Driver AIS Interface	Survey (Devices Survey (Connect	Offsets	All Offset	5					
	AIS Tide Receiver $\qquad \checkmark$							Forward (ft)			
	Position Enter (Cent	Position Enter Device Offset From Boat Reference Point (Center of Mass). The Vertical Offset is Positive						- 30			
	Dowr	Down Device 3D Shape Options					×				
		3D Shape File						- 20			
		C:\Users\rsharif	Document	s\Embaro	adero\Stu	dio\OBJ_Files\1	Browse				
		These offsets on	ne 3D mo	del, not yo	ur vessel offsets						
	Rotat	Position					Obj Editor	- 19			
	Enter	Starboard	Starboard Forward Vertical	_							
	Vertic (clock pitch	0.0	0.0		0.0						
		Rotation						10			
		Yaw	Pitch		Roll			AIS TIDE RECE	IVERITIPAC	X Litera	Augut a
		0.0	0.0		0.0			80 7			
		Scale									
	Enter tr 0.000	x	Y		z			12 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.			
		1.0	1.0		1.0						
								13 2 2 3 4			
		Default		(ж	Cancel	Apply	- 20			
	3D View	3D View Options						1			
		Reset View									
		Device 3D :	Shape Opt	ions				- 30			
		Lighting Options				Left-click: rota	te, right-dick: pa nt Vessel	n, scroll wheel: zoom			

6. When you are satisfied, click [OK]. You will see the selected 3D OBJ file rendered with your saved changes in 3D Hardware.

The Boat with Two Offset Devices (all using the same OBJ Shape) in HARDWARE

