



3D HARDWARE

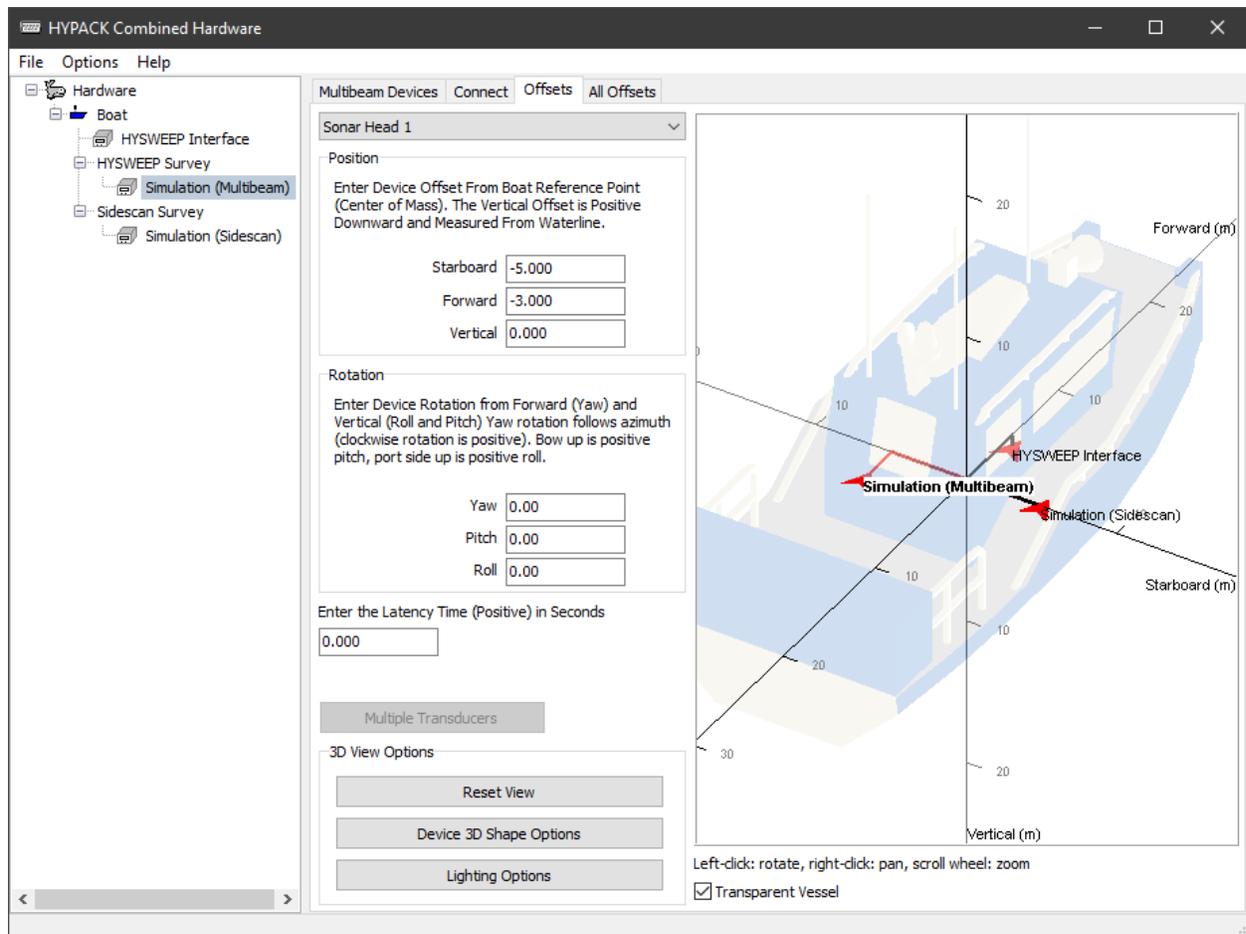
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The HARDWARE program has been updated to include both a 3D visualization of your vessel and devices as well as a table displaying all of your device offsets.

3D VISUALIZATION

To take advantage of the 3D visualization feature, simply load up HARDWARE like normal and navigate to the Offsets tab for any device.

FIGURE 1. Sample Offsets Tab

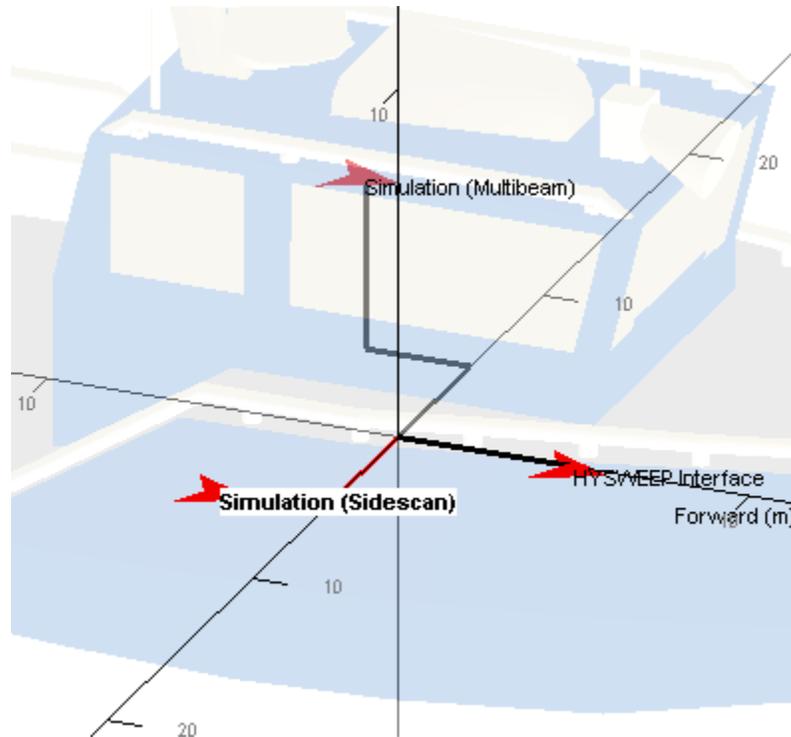


Use your mouse to manipulate the display:

Operation	Mouse Action
Rotate	Click and drag
Pan	Right-click and drag
Zoom in/out	Mouse wheel

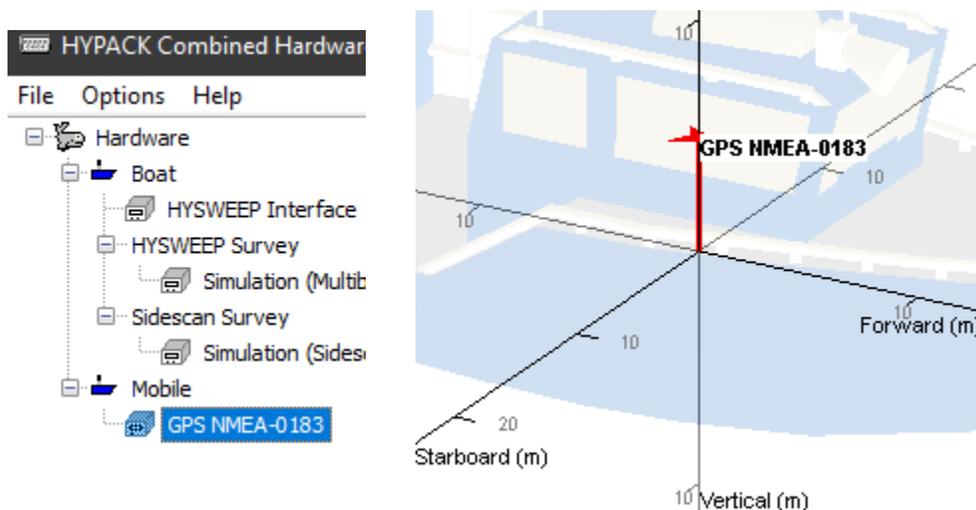
The available offset options all apply to the device you have selected in the device list. That device is also highlighted in the 3D view.

FIGURE 2. The Selected Device Highlighted in the 3D View



If you have multiple mobiles, only the devices attached to the current mobile display.

FIGURE 3. Display Shows One Mobile at a Time



At the bottom of the tab is the 3D View Options panel.

FIGURE 4. 3D View Options Panel.

- **[Reset View]** restores the original, unrotated view.
- **[Lighting Options]** launches the light control where you can enable/disable the light feature, and set the color and position of your lighting for optimal viewing of your model.
- The **[Device 3D Shape Options]** affects the device or mobile you had selected.

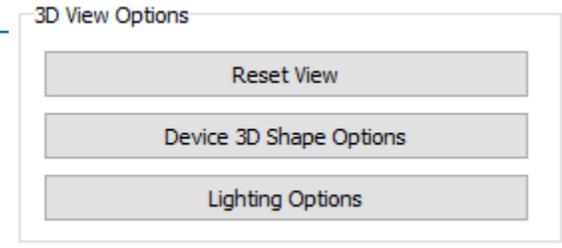
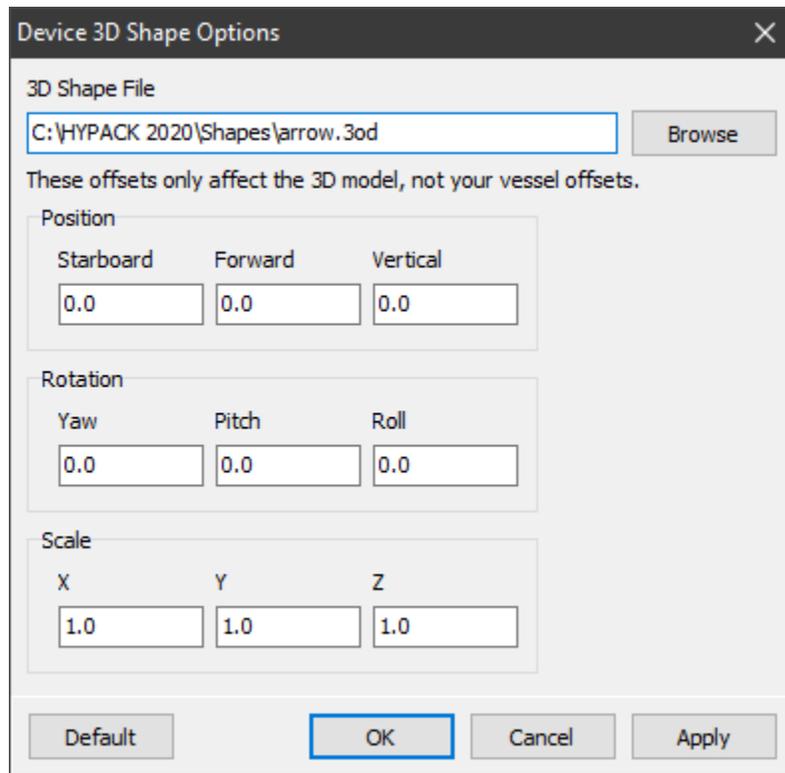


FIGURE 5. Device 3D Shape Options Dialog



In this window, you can select the 3D model you want to use represent your device or mobile, and shift it in the HARDWARE display as needed to match HYPACK® measurement convention. We support 3OD and 3DS files format, so if you have a model of your device or vessel, you can use it here.

The position, rotation, and scale options only affect the 3D model in the 3D view, and *not your actual device offsets*.

ALL OFFSETS TAB

Another new feature is the All Offsets tab, which displays all the offsets for each device. You can directly edit your offsets on this page as well.

FIGURE 6. All Offsets Tab

Survey Devices		Survey Connect	Offsets	All Offsets					
Device	Type		Starboard	Forward	Vertical	Yaw	Pitch	Roll	Latency
Survey Devices									
HYSWEEP Interface			0.000	5.000	0.000	0.000	0.000	0.000	0.000
GPS NMEA-0183			0.000	0.000	-5.000	0.000	0.000	0.000	0.000
Multibeam Devices									
Simulation (Multibeam)	Sonar Head 1		-5.000	-3.000	-5.000	0.000	0.000	0.000	0.000
Simulation (Multibeam)	MRU Offsets		0.000	0.000	0.000	0.000	0.000	0.000	0.000
Side Scan Devices									
Simulation (Sidescan)	Sonar Head 1		5.000	-3.000	0.000	0.000	0.000	0.000	0.000