



Using 3DTV to Fly through Your Data

By Monicque Lee

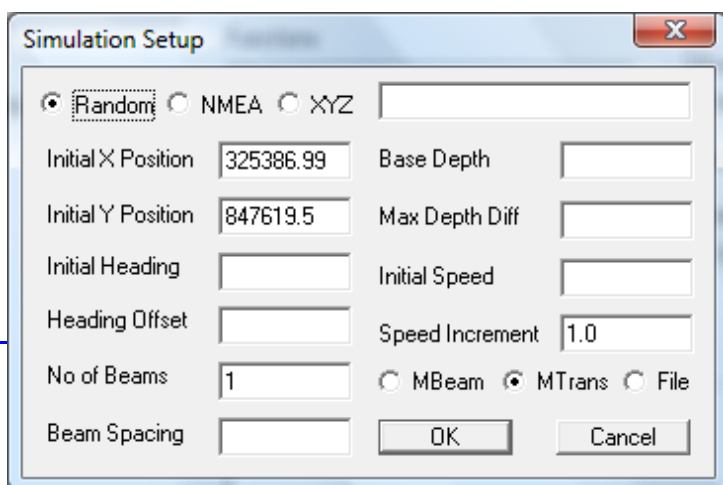
The 3D TERRAIN VIEWER program (also known as 3DTV) is a versatile tool that enables you to closely examine a three-dimensional model of your survey or dredge project area. The program provides a selection of tools to store selected views in your Terrain window. You can save a simple screen capture or record either a 3DM or AVI file to store moving displays.

This article discusses how to run and record a simulated flight through your data.

HARDWARE CONFIGURATION

1. **Open your project in HYPACK®.**
2. **With your mouse, pick a point in or near your data set** that is in a relative straight line to the path you want to follow when you fly through your data set. (*Hint:* Write down the X and Y of that point!)
3. **Go into HYPACK® HARDWARE.** (Select PREPARATION>HYPACK HARDWARE.)
4. **Add the 'HYPACK Generic Simulator' (sim32.dll).** In the driver setup, do the following: enter the X and Y position that you selected in Step 2. Also set your speed increment to 1.0. (1.0 will be slow but will get you going.)

FIGURE 1. Sim32.dll Driver Setup

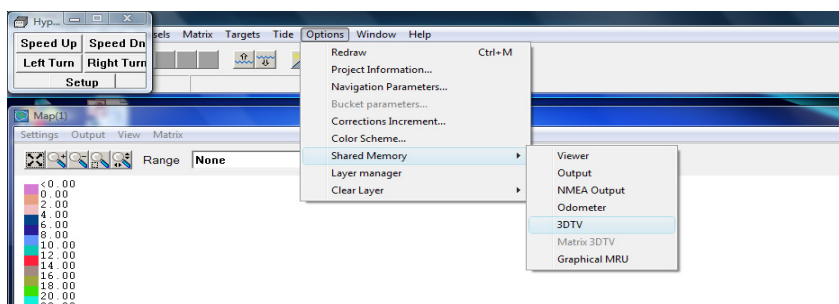


5. **Save your Hardware settings and exit HARDWARE.**

3DTV IN SURVEY

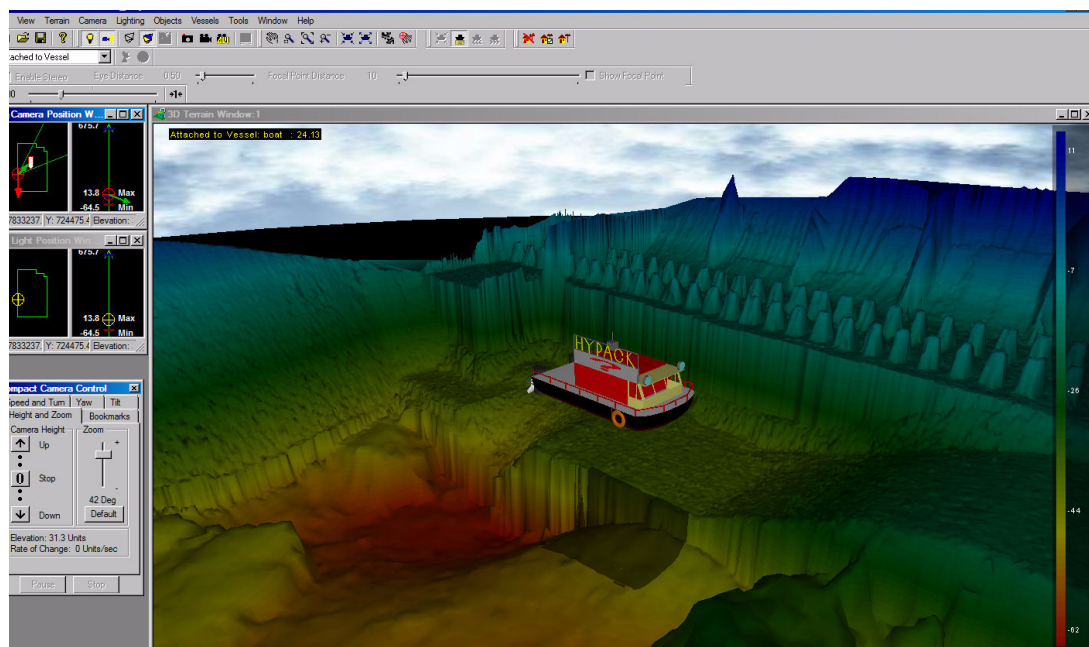
1. **Open up SURVEY.**
2. **Select Options > Shared Memory > 3DTV.**

FIGURE 2.



3. **Load your XYZ file and click OK.** You should have a 'Multi vessel Settings' dialog pop up.
4. **Load your boat shape.** You can select the boat shape out of the Shapes folder.
 - a. **Click the Browse button and go into your \HYPACK\Shapes folder** (where \HYPACK is the HYPACK® install folder).
 - b. **Select the vessel 'SurveyShip_ugo.3od.'**
 - c. **Preview your vessel (Optional).** In this dialog, you can preview the various vessels we have available for display. Load the vessel and click the Preview button. The selected vessel shape will be displayed in the dialog.
 - d. **Under 'Camera Position...', enter 150 for 'Behind' and '75' for 'Above'.**
 - e. **Click OK.**
5. **Arrange your 3DTV windows** according to what you want to see.
 - a. Go to VIEW>TOOLBARS.
 - b. Turn off what you do not need (i.e. Camera Control), but leave the Compact Camera Control on.
 - c. Turn on/set any sky and lighting features you are going to want on. Leave all of this as is; don't minimize anything.
6. **Reopen SURVEY.**
7. **Close everything but the SURVEY shell** so you can see your 3DTV vessel under it.
8. On the SURVEY shell, **select WINDOWS-WINDOW MANAGER.**
9. **In the Windows Manager, select your HYPACK Generic Simulator and click the Restore button.** This should pop up controls with 'Speed Up and Speed Down and turning options.'
10. **Click 'Speed up' in your simulator controls** and this should get your boat moving.
11. **Minimize the controls** so you are able to see your 3DTV screen and main tool bar unobstructed.

FIGURE 3. *FlyingThrough Your Data in 3DTV*



RECORDING YOUR FLIGHT

Now that your boat is flying through your data (or toward your data set) and your lighting, sky and shading are all set, you can record your flight. An AVI file can be read by any Windows® video player.

1. **On your toolbar, click 'AVI'.**
2. **When your virtual flight is complete, click 'AVI' again and give the recorded file a name.**

You will have a movie that you will be able to replay just like in our sample projects, except it is with your data!