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Teledyne EchoTrac E20 Driver Setup in HYPACK®

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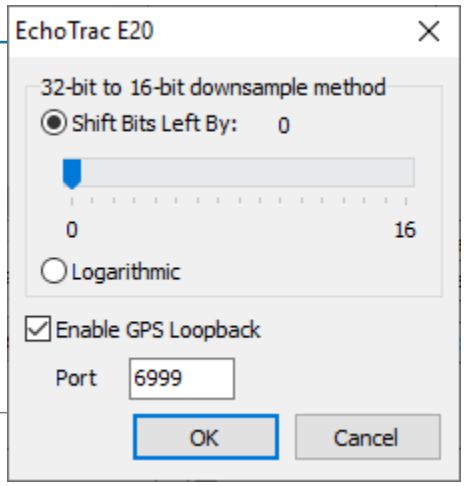
HARDWARE CONFIGURATION

1. **Follow the setup directions included with your EchoTrac**. Use the Teledyne Odom Hydrographic control software (included on a flash drive with your device) to connect to the device.

IMPORTANT: The Teledyne control software must be running and connected to the EchoTrac E20 in order to use the device in HYPACK®. If you do not see data in the EchoTrac software, you will not see data in HYPACK®.

2. **In HYPACK®, open HARDWARE and configure your devices**:
   Teledyne EchoTrac E20:
   a. **Add the Teledyne EchoTrac E20 driver** to your mobile.
   b. **Click [Setup]**
      - **32- to 16-bit downsampling mode.** The EchoTrac E20 works in 32 bits, while the HYPACK® data format supports only 16 bits. There is signal loss using either option. You may want to test each option and choose the one you prefer.

FIGURE 1. EchoTrac E20 Driver Setup



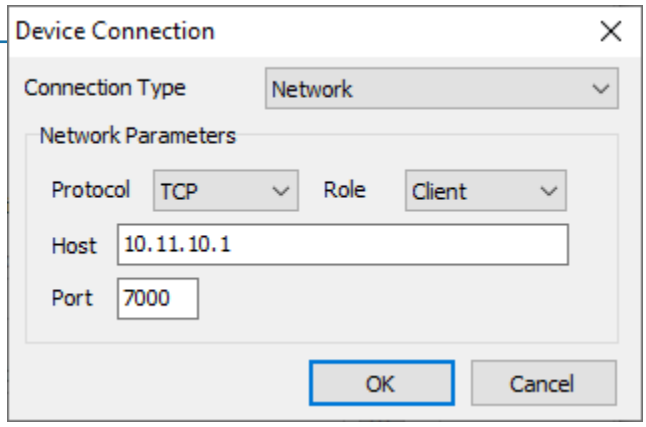
Shift Bits By scales the data down. If you choose this option, you will be able to change it while surveying to get the best image.
Logarithmic scales the 32-bit data to a 16-bit logarithmic scale.

- **Enable GPS Loopback:** When the GPS is connected to the EchoTrac, select this option to rebroadcast the GPS data over the network to the GPS on the specified port.

NOTE: To use this feature, make sure the EchoTrac control software is receiving GPS data .

c. **In the Survey Connect tab, click […] for the Device Connection** option and choose the following options:

FIGURE 2. EchoTrac Connection Settings



- **Connection Type**: Network
- **Protocol**: TCP
- **Host**: E20 IP address. This is the same IP address used in the EchoTrac Control Software.
- **Role** and **Port** are unused. HYPACK® always connects to the E20 over port 7000

GPS Driver:

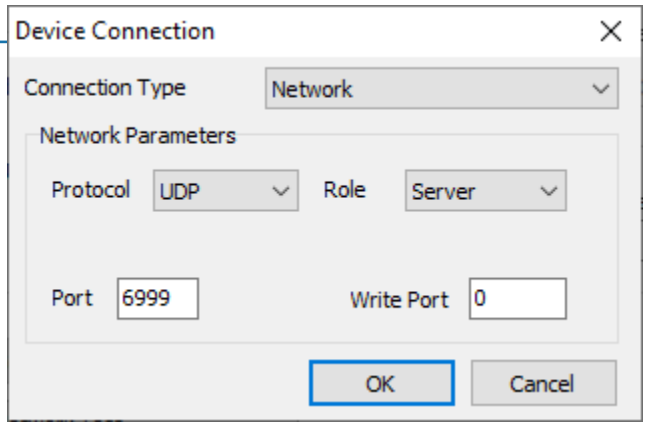
a. **Add the GPS driver** to your mobile.

b. **Click [Setup] and configure your GPS** as normal.

IMPORTANT: If you are using the GPS Loopback option in the EchoTrac setup, you must set your GPS to read GGA strings from the UDP connection.

c. **In the Survey Connect tab, click […] for the Device Connection** option and choose the following options:

FIGURE 3. GPS Connection Settings



- **Connection Type**: Network
- **Protocol**: UDP
- **Role:** Server.
- **Port:** 6999

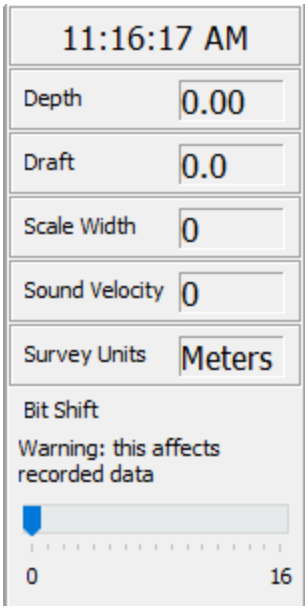
3. **Click [OK] and close HARDWARE.**

TELEDYNE ECHOTRAC IN HYPACK® SURVEY

1. **Launch Survey.**
2. **In the Teledyne control software, configure your device and start pinging**. (Please refer to the Teledyne software instructions.)

In HYPACK® SURVEY, you should see your echogram in the EchoTrac E20 device window. (It may be minimized at the bottom of your screen.) Some data statistics and the Bit Shift controls appear in a panel beside the echogram.

FIGURE 4. EchoTrac E20 Device Window Configuration



You can configure the display as follows:

- **Adjust downsampling setting**: Drag the “Bit Shift” slider.
- **Hide or show the beam trace**: Right-click and select Beam.
- **Hide or show the statistics**: Right-click and select Status.
- **Resize echogram and beam trace columns**: Click and drag the dividers between the columns or resize the window.

The echogram is always visible.

Remember that all device control is done through the Teledyne control software. Please refer to their documentation for instructions on use.