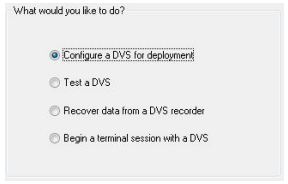
DVS Quick Reference Card

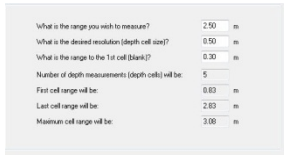


Step 1. At the **DVS Wizard Startup Options** screen, click **Configure a DVS for a New Deployment.**

Click **Next**.

Step 2. The first step is planning. Make sure the **Skip Planning Step** box is not checked.

Click **Next**.



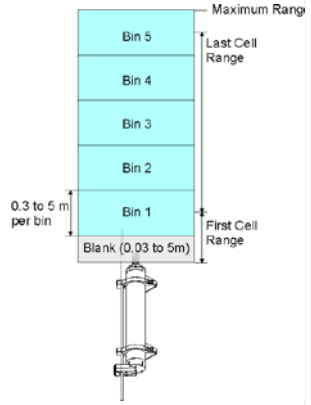
Step 3. Select the depth range (1 to 5 meters) you wish to measure.

Set the resolution (depth cell size) to between 0.03 to 5.0 meters. A larger depth cell (bin) size decreases the standard deviation, but shallow water situations may need to use small depth cells (bins) to get more data points.

Set the range to the 1st cell (blank) to between 0.03 (default) to 5 meters.

The *DVS* software will automatically set the number of depth cells (bins) and show the first and last cell range.

Click **Next**.



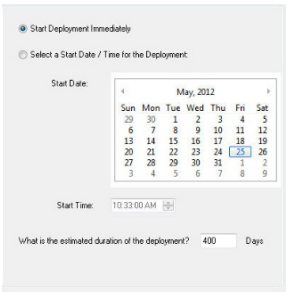
First Cell Range – The range from the transducer face to the middle of the first depth cell (bin). The depth cell (bin) size and the WF (blank) command in the command file primarily affect where it is located.

Last Cell Range – The last depth cell range is determined from the number of depth cells (bins), depth cell size, and first depth cell range.

Max Range – The maximum profiling range is dependent on the DVS frequency, water salinity, water temperature, and the depth of the DVS. A warning message will appear if the maximum range exceeds 6 meters.

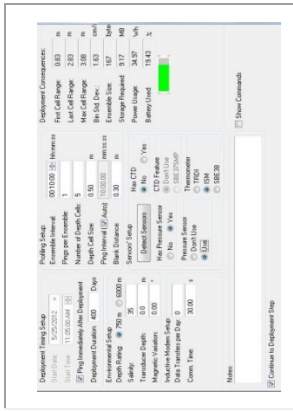
Step 4. Select how many ensembles per hour you want to record. The *DVS* software will automatically set the time between ensembles.

Click **Next**.



Step 5. Enter the expected duration of the DVS deployment from the time of the first water profiling ping (either immediately or first ping date/time. This duration *does not* produce a command to instruct the DVS to stop data collection; it is for estimating the following *consequences*: Battery/Power usage and Storage required.

Click **Next**.



Step 6. The **DVS Deployment Settings** screen opens using the settings you selected with the wizard.

Review the **Profiling Setup** and **Deployment Consequences**.

When you are satisfied with the setup, make sure the **Continue to Deployment Step** box is selected.

Click **Next**.

Name the deployment file and click **Save** to save the deployment file. The *DVS* software will automatically add the extension **.dvs* to the file.

Step 7. This screen contains the most commonly used "last minute" items done just prior to physically deploying the DVS unit. These include: **Set DVS Clock** (usually to the time on the connected PC); **Erase DVS Recorder** (not selected by default to avoid inadvertent loss of data); selecting the diagnostic tests to be run, **Zero Pressure Sensor** (if the DVS has a pressure sensor), and **Deploy DVS** (which uploads the selected command file to the DVS unit).

Select the **Log results to file:** check box and enter a file name using the **Browse** button. Click **Next**.

Step 8. A **Result**s box will open and display the communications to the DVS in real time as the steps are run. A green check mark next to each step indicates there were no problems; a red X indicates a problem or that the step was skipped.

Once the commands have been sent to the DVS:

- Disconnect the test I/O cable and use the DVS Operation Manual to verify the DVS unit is sealed and ready for deployment.
- Deploy the DVS.

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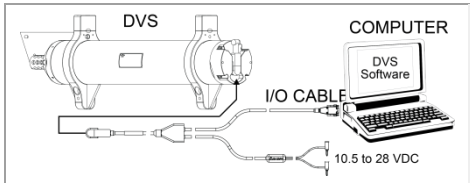
End-Cap with Connector

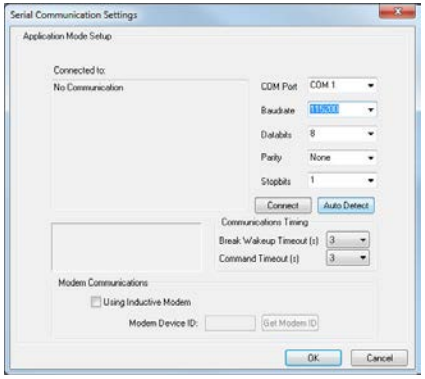


Remove the dummy plug from the end-cap and connect the I/O cable to the DVS end-cap.

Attach the I/O cable to your computer's communication port. The standard communications settings are RS-232, 115200-baud, no parity, 8 data bits and 1 stop bit.

Connect the test cable red/black banana plugs to an external power supply (+10.5 to 28 VDC).

DVS batteries are shipped inside the DVS, but not connected. Connect the battery and seal the DVS before deployment.



RS-232 via the I/O Cable

Start the *DVS* software.

At the **DVS Wizard Startup Options** screen, click **Cancel**.

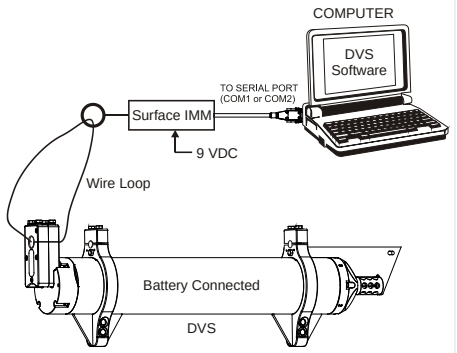
From the **Configure** menu, click **Serial Communications**.

Select the COM port, baud rate, parity, and stop bits that the DVS is connected to. If you are unsure of the setting, use **Auto Detect**.

Click the **Connect** button. You should see the wakeup message appear on the deployment log window.

Click **OK**.

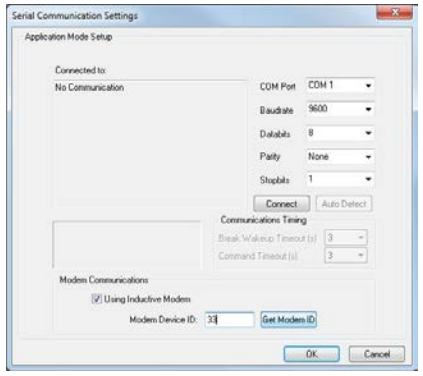
Inductive Modem Setup



Loop a conductor through the DVS inductive modem and the surface inductive modem (not supplied) connected to a computer.

Power can be supplied either from the battery pack or from an external supply via the test cable. If the DVS is sealed for deployment, then power must be supplied from the battery pack.

DVS batteries are shipped inside the DVS, but not connected. Connect the battery and seal the DVS before deployment.



The inductive modems actually communicate with each other at a baud rate of 1200, and do not support communication with the DVS at baud rates above 9600.

Configure Serial Connection to the Surface IMM

Start the *DVS* software.

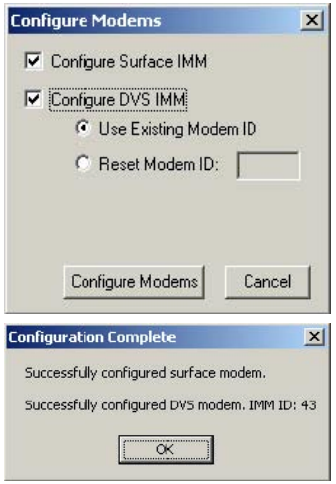
At the **DVS Wizard Startup Options** screen, click **Cancel**.

From the **Configure** menu, click **Serial Communications**.

Select the appropriate COM port (i.e. the port that the surface modem is connected to). For the baud rate, select 9600. Serial communications with the IMM's should always be set to 9600 baud. Leave the other settings at their default values.

Select the **Using an Inductive Modem** box and click the **Get Modem ID** button.

Press the **OK** button to close the **Serial Communication Settings** dialog.



On the **Configure** menu, select **Modems**. Select which modem(s) you wish to configure (i.e. the Surface IMM connected to the serial port and/or the DVS IMM).

If you are configuring the DVS IMM, you have the option of **Use Existing Modem ID**, or **Reset Modem ID** (from 00 to 99).

Press the **Configure Modems** button to start the configuration process.

The dialog will update with a status bar and information on the configuration steps being run.

The configuration process will take a few minutes to complete. Once the process in completed, a message box will appear letting you know that the selected configuration(s) are completed.

If the modem configuration process does not complete successfully, check the serial connection from the PC to the surface IMM, and the connection to the DVS system (if you are attempting to configure the DVS modem). If the connections look correct and the modem configuration still fails, you will need to test your modem connections. The DVS Operation Manual describes how to verify modem communications.