
PC Configuration software for Discovery MkVI – v 1.03 – User guide

This user guide describes the different features included in PC Config software, version 1.03, and how they are used.

When referring to this user guide, make sure that you have the corresponding software version installed on your computer.

The PC Configuration software version 1.03 can be downloaded from our Discovery MkVI website at <http://mkvi.poseidon.com>. At this website, you will find all resources connected to the MkVI rebreather. Once you have entered the above mentioned website, click the “Downloads” tab to see a list of available downloads.

The 1.03 version of the PC Configuration software has been tested on the following operating systems:

- Windows XP
- Windows Vista*
- Windows 7

In order for the software to work, your computer needs to have a working IrDa communication device that can communicate with the MkVI unit.

You need to have 1.2 Mb of free space on your local hard drive.

**NOTE that on Windows Vista, the red box logs can only be saved to the same directory where the PC Configuration software is installed, i.e. C:\Program\Poseidon\MkVI_Config (default installation folder)*

Download and install

To download the PC Configuration software version 1.03 click on the link that says “MkVi Configuration tool” and select the location on your computer where you want to save the “MkVI_ConfigSetup_v1.03.zip” file.

When the zipped file has been downloaded, unpack the file and save the “MkVI_ConfigSetup_v1.03.exe” file to your local hard drive. To install the software double click on the “MkVI_ConfigSetup_v1.03.exe” file and follow the instructions on the screen.

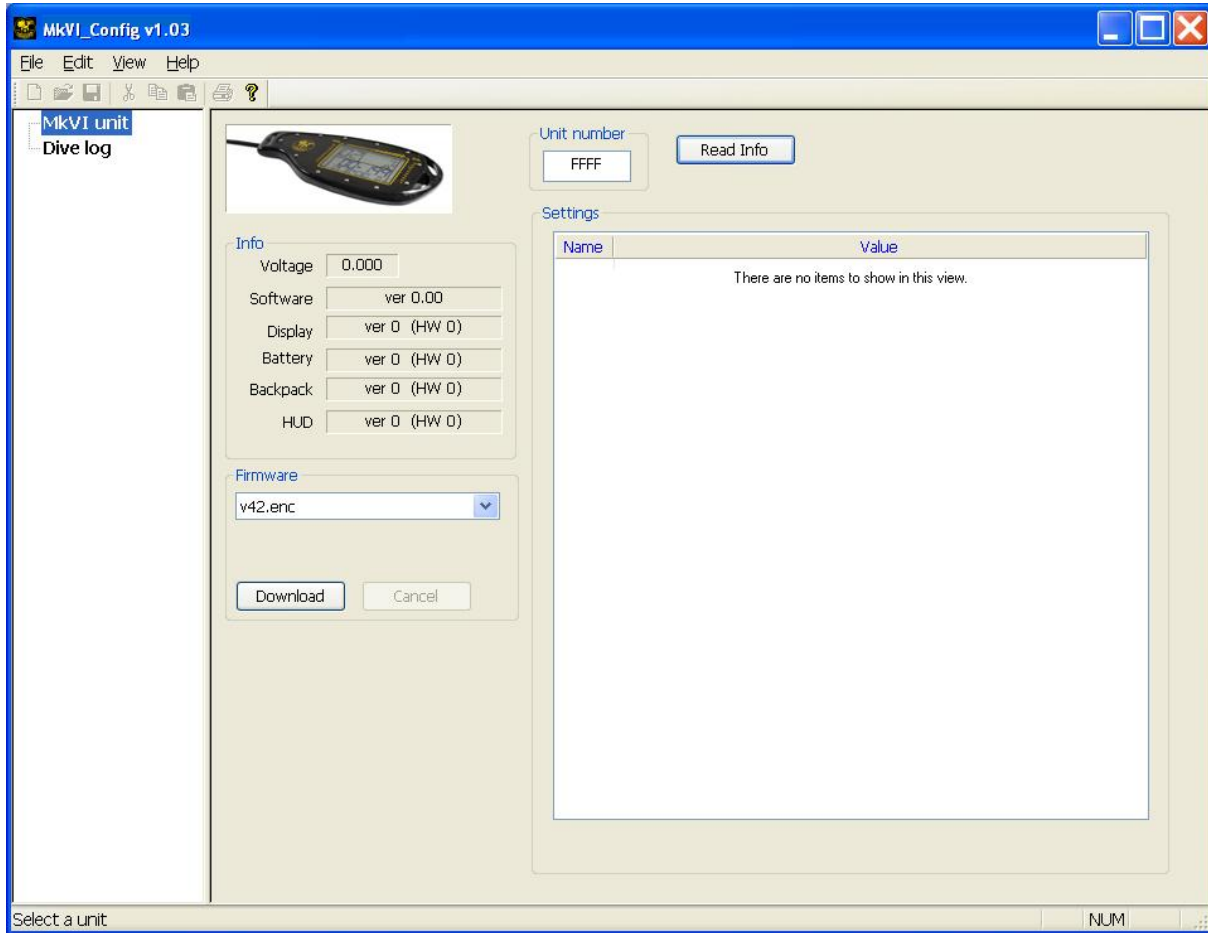
If you have an earlier version of the PC Configuration software installed on your computer, we recommend that you check the “Remove old program” checkbox in the set up dialogue box.

When the program has been installed, you will find the program in your start menu and a “Poseidon logo” icon on your desktop, if you checked the “Desktop Link” checkbox in the set up dialogue box.

Starting the program

Start the PC Configuration program by locating it in the AI programs section of your start menu or by double clicking on the desktop icon.

When the program is started, this is what you will see on your screen: (Fig 1)



(Fig 1)

Since the program isn't connected to the MkVI unit yet, there isn't much information that you can see at this stage.

So we will start by describing the functionality of the different sections of the view you will see when you first start up the program. (Fig 2).

On the left hand side of the program, you have the main menu (A). By selecting either the "MkVI Unit" option or the "Dive log" option, you switch between the two main features of the program.

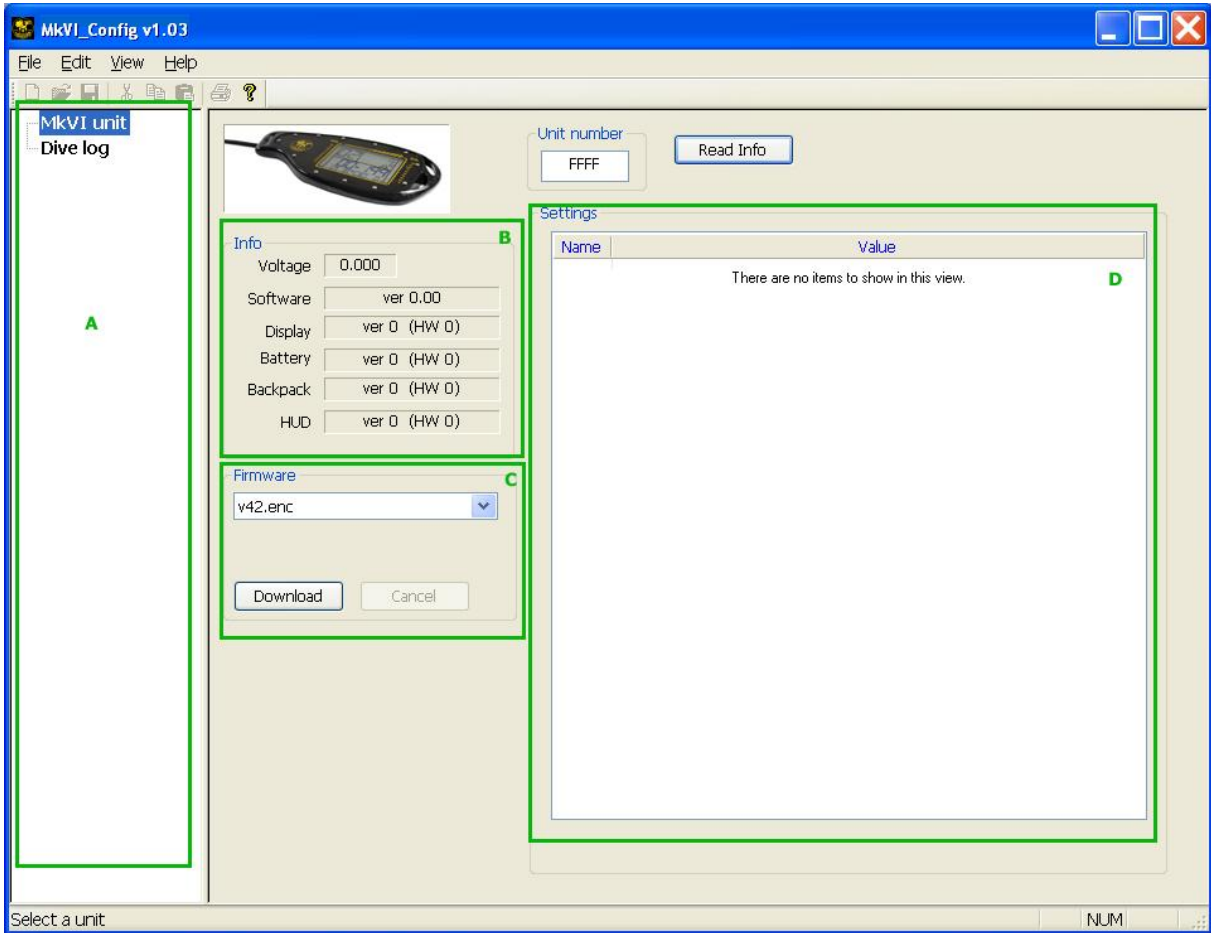
In the "Info" area (B), all Firmware information will be displayed once you have connected to the unit.

If your computer is connected to the Internet, the PC Configuration software will search on line for the latest Firmware version available. In the scrolldown menu in area (C), the latest Firmware version will be displayed. This area is also where you initiate a Firmware update, by clicking on the "Download" button. Please note that you should only press the "Download" button when the PC Configuration software is connected to the MkVI unit.

When doing a Firmware update, make sure that the HUD is NOT mounted on the mouth piece, as this might cause the update to fail.

In the "Settings" window (D) all editable configuration settings will be visible once you have connected the PC Configuration software to the MkVI.

The "Dive log" feature will be described later in this user guide.



(Fig 2)

Connect the PC Configuration software to your MkVI

Before you attempt connecting your PC Configuration software to your MkVI unit, make sure that your IrDa communication device is working.

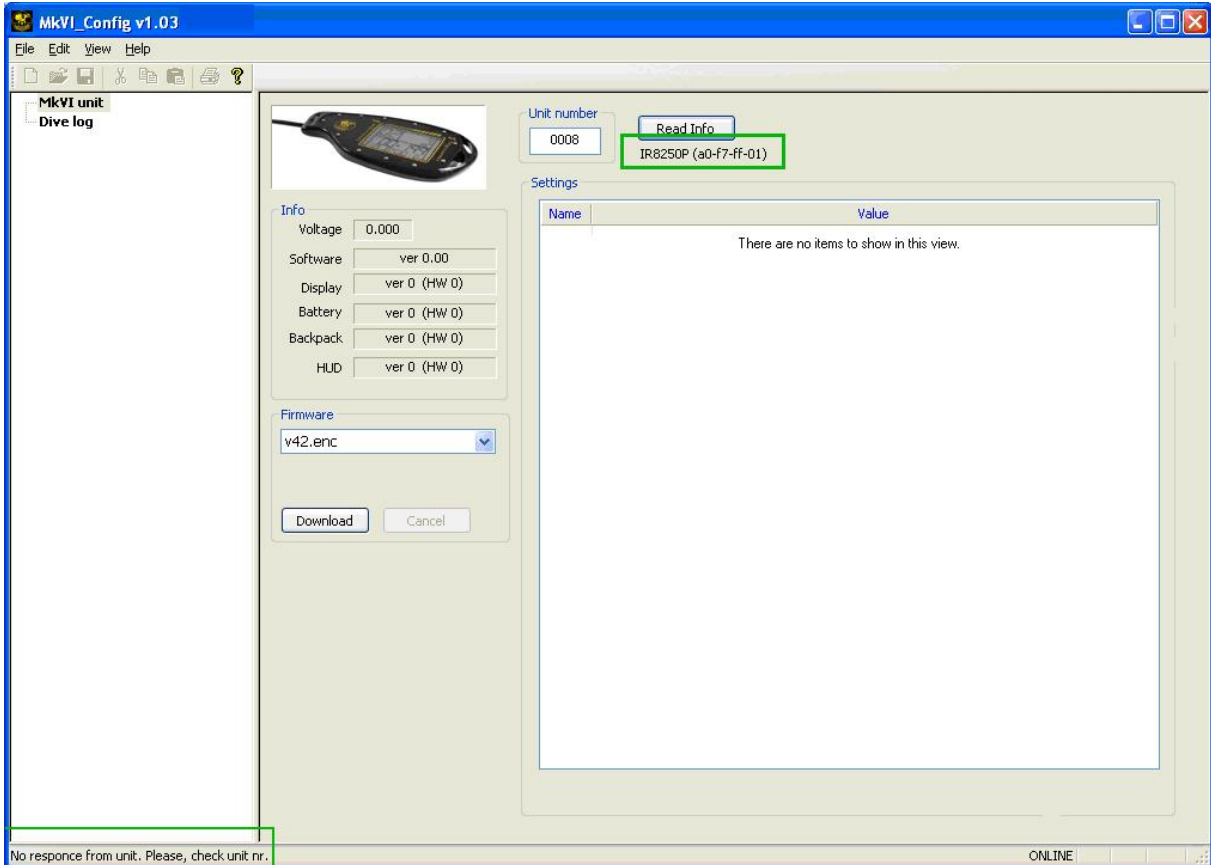
Power up the MkVI unit and start a pre dive check.

Next, place the IrDa communication device by the MkVI IrDa communication port, located on the primary display as shown in Figure 3.



(Fig 3)

Once connection is made, you should hear a sound being played on your computer.
 In the “Unit number” field, type in the serial number of the unit and then press the “Read Info” button.
 If you have typed in the incorrect serial number, the screen will look like Figure 4.



(Fig 4)

Note the text in the two green boxes (below the “Read info” button and in the lower left hand corner).

If you have entered the correct serial number, the PC Configuration software will connect with the MkVI unit and the program screen will look as shown in figure 5.

As you can see, there are now a bit more information shown.

In field (A), you can now see the following information:

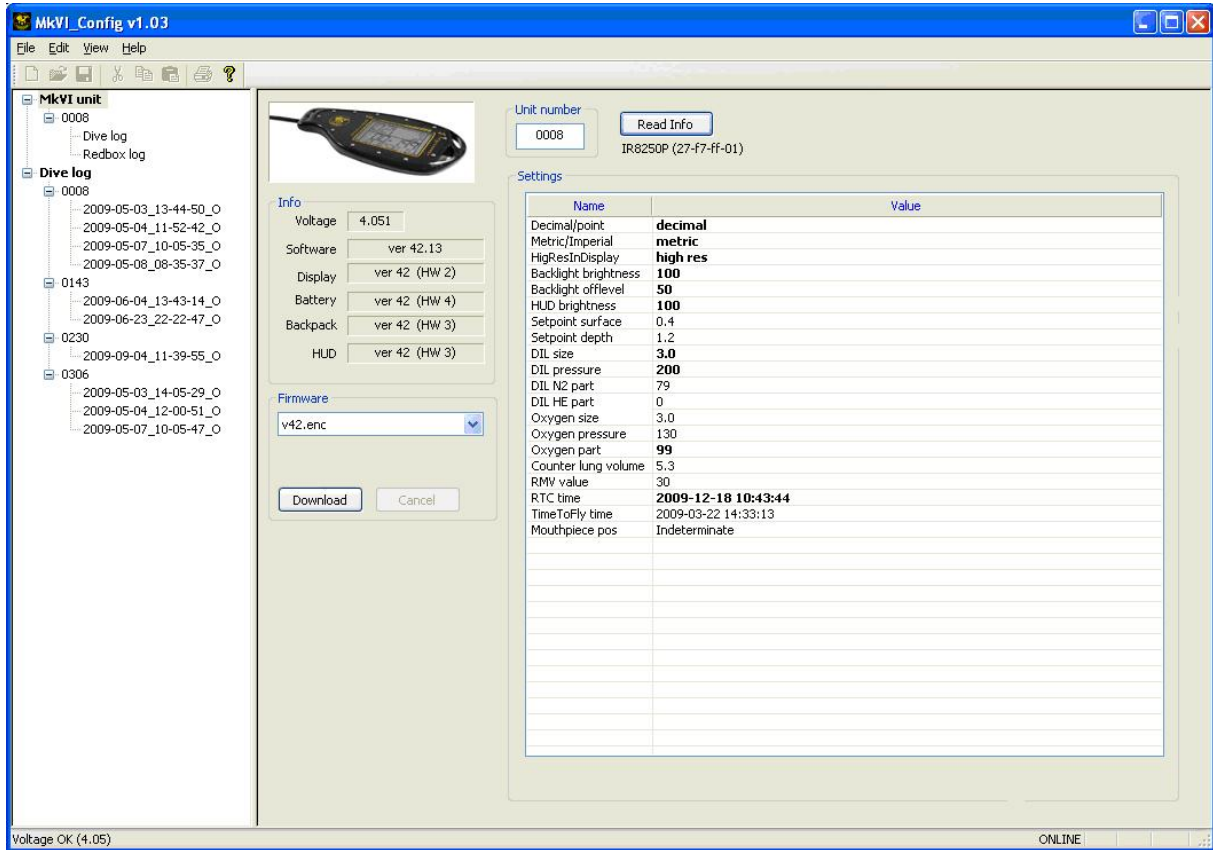
MkVI Unit

- Dive log – The dive logs that are saved in the MkVI unit’s battery
- Redbox log – The log files that contains more technical data from the dives. These are the log files that you send to your Distributor, if you are having technical problems with the unit.

Dive Log

- These are the dive logs that you have previously downloaded from the unit and they are saved on your local hard drive.

NOTE that your must start a pre dive check on the Discovery Unit to be able to connect to it and read the data from it!



(Fig 5)

Filed (B) now shows what Firmware version your MkVI unit has. The Display, battery, Backpack and HUD must all show the same version number. If they don't, do a re-installation of the latest Firmware again.

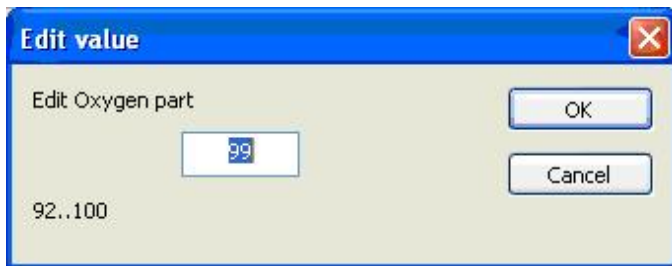
In field (D), a list of configuration values are show. All items where the text is in **bold** letters is editable. If you click on the number **99** where it says "Oxygen part", a small dialog box will appear. (See Figure 6)

Configuration values:

- **Decimal / Point:** Select between a decimal or period / sign when displaying decimal values.
- **Metric / Imperial:** Select between metric (Meter/Celsius) or imperial (Feet/Fahrenheit) display
- **HigResInDisplay:** Show temperature or last decimal value of the O2 sensor.
- **Backlight brightness:** Brightness of the Display back light (0 – 100%)
- **Backlight offlevel:** Level of surrounding light where the display backlight is turned off.
- **HUD brightness:** Brightness of the HUD Led lamp (0 – 100%)
- **Setpoint surface:** The PO2 set point at the surface
- **Setpoint depth:** The PO2 set point below 10 meters/32,8 feet
- **DIL size:** Size of the Diluent tank (Litre only)
- **DIL pressure:** Pressure of the Diluent tank, in BAR
- **DIL N2 part:** Percentage of N2 (Nitrogen) in the Diluent gas (79% is standard)
- **DIL HE part:** Percentage of HE (Helium) in the Diluent gas (0% is standard)



- **Oxygen size:** Size of the Oxygen tank (Litre only). 3.0 litres is standard.
- **Oxygen pressure:** Pressure of the oxygen tank, in Bar.
- **Oxygen part:** Percentage of Oxygen in the pure oxygen.
- **Counter lung volume:** Volume of the two counter lungs. Standard is 5.3 litre
- **RMV value:** Respiratory Minute Volume
- **RTC time:** Real Time Clock (set the clock on the MkVI unit)
- **TimeToFly time:** The time when you can fly, after the last dive.
- **Mouthpiece position:** Indicates the position of the CC/OC switch



(Fig 6)

This is where you change the percentage in the O2 that you use. Click "OK" when you have set the correct value, to configure the MkVI unit.

Similar dialog boxes will appear for all other editable values.

Downloading dive logs to your computer

As described earlier, you can download two different types of log files from your MkVI unit:

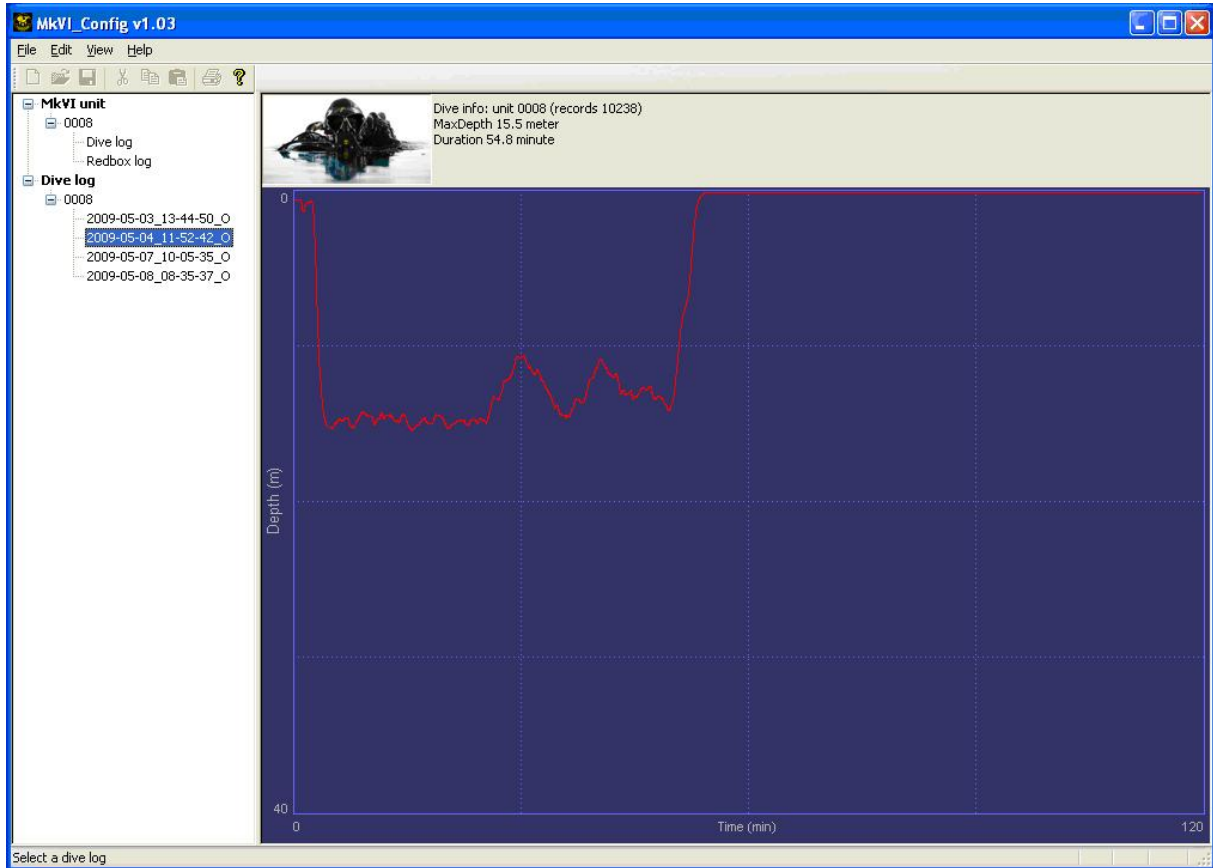
- Dive logs
- Red box logs

The Dive logs contain dive related information that allows you to view your dice profile in the Dive Log section of the program.

To download the Dive Log files from the battery to your computer, do the following:

- High-light the word Dive Log in the menu tree under the serial number (i.e. 0008)
- All available dive logs on the battery will be displayed in the tree menu.
- Double click on the log file you want to save and it will automatically be saved to your local hard drive.
- The downloaded log file should now appear in the Dive Log tree menu.
- Repeat this process until you have saved all the dive logs you want to save.

If you high-light one of the dive logs shown in the lower left hand side menu, the right side of the program will give you a graphic view of the dive profile of the selected dive. (Figure 7)



(Fig 7)

Downloading the Red box log files are very similar to downloading the dive logs, but with one noticeable difference.

When you click on “Redbox log” in the left hand side menu, the program will connect to the MkVI unit to retrieve the Redbox log files. If there are a lot of logs, this might take several minutes.

When you double click on a red box log file, the program will ask you where you want to save the log file. The reason why the program asks you where you want to save it, is so you can find it when you want to attach the Red box log file to an e-mail. Note that is you are using Windows Vista, you can only save the red box logs to the root folder where the PC Config software is installed, i.e. C:\Program\Poseidon\MkVI_Config (default installation folder)

If the Red Box Log files isn't saved to the selected folder, they might have been saved to the root folder of the PC Configuration software installation.

Shutting down the program

When you have downloaded the files you want and/or done the configurations you want, and you want to disconnect from the MkVI unit and shut down the PC Configuration software, do the following:

- Disconnect the IrDa connection between the MkVI unit and your PC.
- Close the PC Configuration software.
- Allow the MkVI unit to either complete the Pre Dive test or time out.
- **DO NOT REMOVE THE BATTERY FROM THE MkVI WHILE THE PRE DIVE CHECK IS RUNNING.**