

Blackwave

Dive Assistant - Desktop Edition

User Guide

Copyright © 2002 - 2009 Blackwave. All rights reserved.

These materials (including without limitation all articles, text, images, logos, compilation, and design) are Copyright © 2002 – 2009 Blackwave. All rights reserved. Blackwave materials may be copied and distributed on a limited basis for non-commercial purposes only, provided that any material copied remains intact and that all copies include the following notice in a clearly visible position: "Copyright © 2002 - 2009 Blackwave. All rights reserved."

These materials may not be copied or redistributed for commercial purposes or for compensation of any kind without prior written permission from Blackwave. If you have questions about these terms or would like information about licensing materials from Blackwave, please send an email to support@blackwave.com .

Table of Contents

Table of Contents	2
Getting Started	4
Introduction to Dive Assistant	4
User Requirements	4
Installation	4
Upgrading	5
Registration	5
Starting the application	6
Application	9
Main Menu	9
Dive Statistics & Notification	9
Features	10
Divers	11
Current Diver	11
New Diver	11
Edit Diver	11
Delete Diver	11
Diver	13
Personal Details	13
Qualifications	14
Insurance	15
Settings	15
Dive Log	18
New	18
Edit	18
Delete	18
Print	19
Clone	19
Clone To Diver	19
Dive Log Entry	21
Main	21
Extra	23
Buddy	25
Notes	25
Profile	26
GPS	27
Multimedia	28
Settings	28
Dive Plan	30
Plan	30
Nitrox	30
Calculator	31
Nitrox Wizard	32
Dive Kit	33
New Kit Item	33
Edit Kit Item	33
Delete Kit Item	33

Dive Kit Item	34
Service History	34
Dive Tables	36
Import	36
Lookup Dive Table	37
Delete Dive Table	38
GPS	39
Position	39
Satellites	39
Device	40
Dive Computer Import	41
Aeris	42
Citizen	42
Mares IRIS	43
Oceanic	43
ReefNet Sensus Pro Manager	43
Sherwood Wisdom	43
Suunto Dive Manager 1.x	43
Suunto Dive Manager 2.x	43
Universal Dive Computer Format	44
Uwatec SmartTrak	44
Synchronization	45
How it works	45
Reset Sync	46
Cancel Sync	46
Result	46
Other	48
Weight Table	48
Buddies	49
Locations	49
Dive Sites	50
Export Wizard	50
Log	51
Template Builder	52
Index	53

Getting Started

Introduction to Dive Assistant

Welcome to Dive Assistant – Desktop Edition. Dive Assistant is the complete PC based scuba diving application and the desktop partner to Dive Assistant – Pocket PC Edition. Dive Assistant supports multi diver, dive logging, dive planning, kit management, dive tables and many other features.

User Requirements

To use Dive Assistant – Desktop Edition you will need the following software to be installed on your PC.

- Windows XP or Vista.
- Microsoft .NET Framework 2.0. This can be downloaded from Microsoft's website free of charge:
<http://www.microsoft.com/downloads/details.aspx?familyid=0856eacb-4362-4b0d-8edd-aab15c5e04f5&displaylang=en>

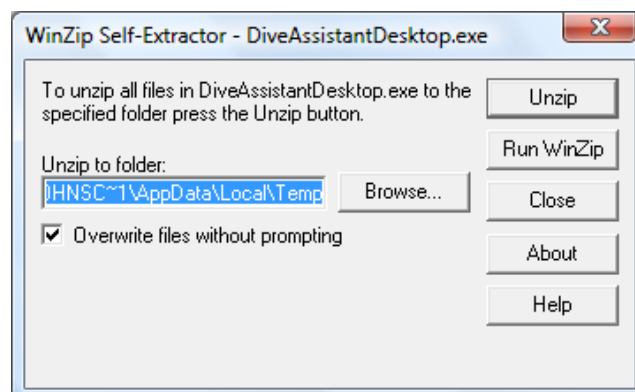
Installation

The installation of Dive Assistant – Desktop Edition is very easy. The first step is to install Microsoft's .Net Framework 2.0. If you have a Dive Assistant CD the .Net Framework is called dotnetfx.exe and is located in the Prerequisites folder. Otherwise download the framework from Microsoft's website.

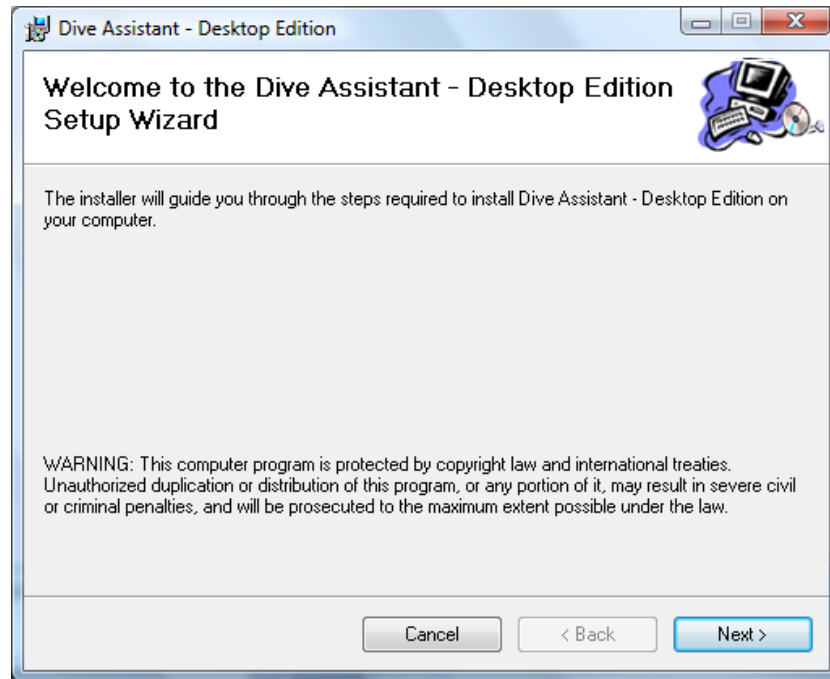
Once the framework has been installed run the Dive Assistant install. The file can be found in the Applications folder on the Dive Assistant CD, or it can be downloaded from the DiveAssistant.com website:

<http://www.diveassistant.com/products/DiveAssistantDesktop/download.aspx>

Running DiveAssistantDesktop.exe will start the WinZip Self-Extractor. Select the folder you would like the setup files to be unzipped to and Click Unzip. This will copy the setup files to your specified folder



Run Setup.exe from the folder you specified in the previous step. Installation Wizard will appear. Follow the instructions in the Wizard, and Dive Assistant – Desktop Edition will install itself on your PC.



Upgrading

To upgrade from Dive Assistant – Desktop Edition 2004 or later versions to Dive Assistant – Desktop Edition is an easy process. Make a backup of the data.mdb and tables.mdb files. They are located in the folder [ProgramData]\Blackwave\Dive Assistant\data. [ProgramData] is c:\Documents and Settings\All Users\Application Data on XP and c:\ProgramData on Vista. Uninstall your existing Dive Assistant installation and install the Dive Assistant – Desktop Edition. Copy the backed up files into the new application data folder.

You will need to install the Microsoft .NET Framework 2.0 to run Dive Assistant – Desktop Edition. You can download the framework from Microsoft's website:

<http://www.microsoft.com/downloads/details.aspx?familyid=0856eacb-4362-4b0d-8edd-aab15c5e04f5&displaylang=en>

If you are using an earlier version than 2004, you will need to send the data files to Blackwave, to have them converted to the new format.

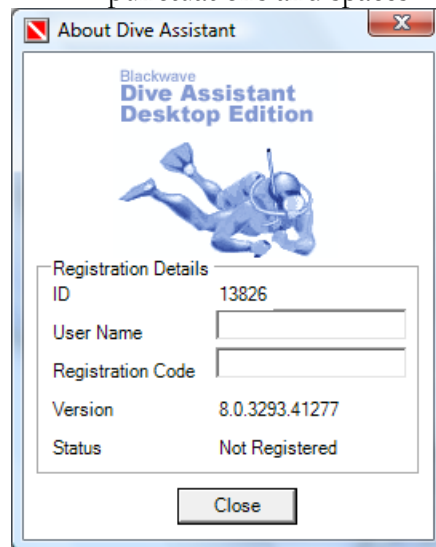
Registration

The registration code for Dive Assistant – Desktop Edition is based on the User Name and ID from the **About** window. You can access the **About** window by clicking **Help > About** in the main menu.

If you purchased a CD with the Dive Assistant applications you were given an Activation Code on the back of the CD cover. If you purchased the application online you were sent or given an Activation Code. Log onto www.diveassistant.com and log on. If you don't have an account you can create one by clicking the **New Users Click Here** link. Once you have logged in click the **Account** link. A registration wizard will appear. Enter the Activation Code you received and click **Continue**. Then enter the name you want to register the application under and the ID. A registration code will be created for you. The registration code will be available every time you log into your account. If you purchased the Full Pack make sure that you have the owner name from the Pocket PC and the ID from Dive Tables Creator available as well, as all the applications will be registered at the same time.

If the registration code matches the User Name and ID the textbox will disappear the status will change to Registered. There are a few reasons why a registration code would not work:

- The registration code is not valid for this version of the application
- The User Name does not match that sent to Blackwave. The registration code is case sensitive as well being sensitive to punctuations and spaces.

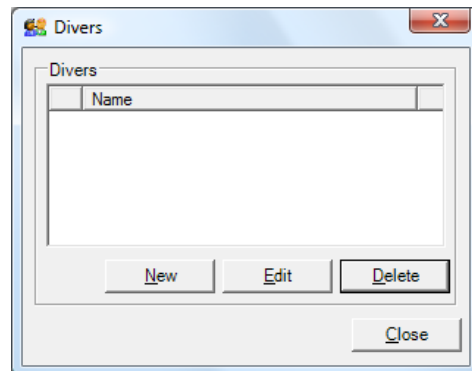


Starting the application

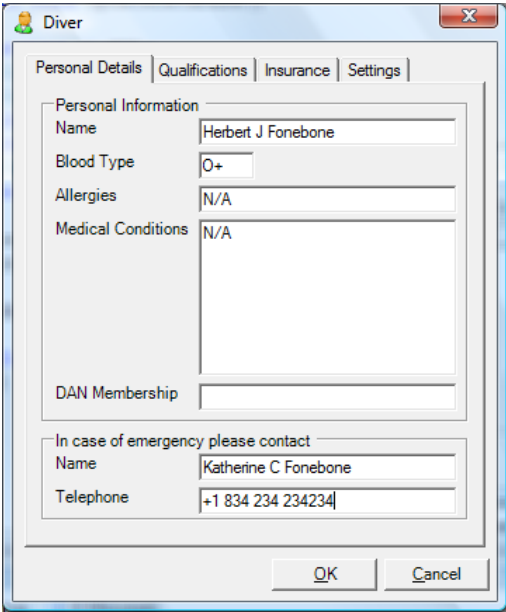
To run Dive Assistant – Desktop Edition go to the **Start Bar** and click **All Programs > Dive Assistant > Dive Assistant – Desktop Edition**. This will start the application. The first screen you will see is the Splash Screen.

First Time Login

If it is the first time you log into the application the you will see the divers screen. There will be no divers in the list. Click the New button to create a new diver.



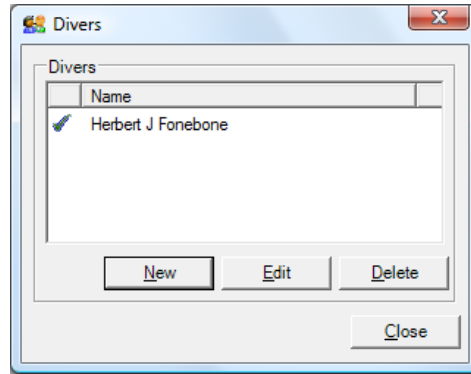
The Diver screen will appear. Fill in the diver details and click OK. You can return to this Diver Screen any time from the application. When you have finished entering diver details, click OK and you will return to the Divers screen.

A screenshot of a Windows application window titled "Diver". The window has a tabbed interface with tabs for "Personal Details", "Qualifications", "Insurance", and "Settings". The "Personal Details" tab is active. The form contains the following fields:

- Personal Information**
 - Name: Herbert J Fonebone
 - Blood Type: O+
 - Allergies: N/A
 - Medical Conditions: N/A
- DAN Membership: (empty field)
- In case of emergency please contact**
 - Name: Katherine C Fonebone
 - Telephone: +1 834 234 234234

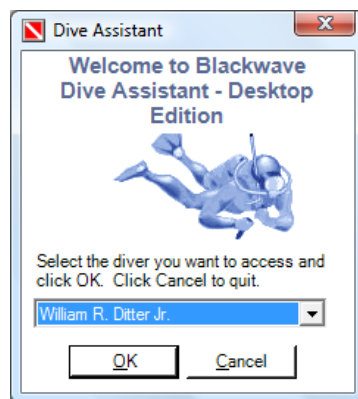
At the bottom of the window are "OK" and "Cancel" buttons.

The Divers screen will contain the new diver. A Checkbox will appear next to the diver indicating that the diver is the Current Diver. You can add extra divers now or later using the same process or click the Close button to start the application.



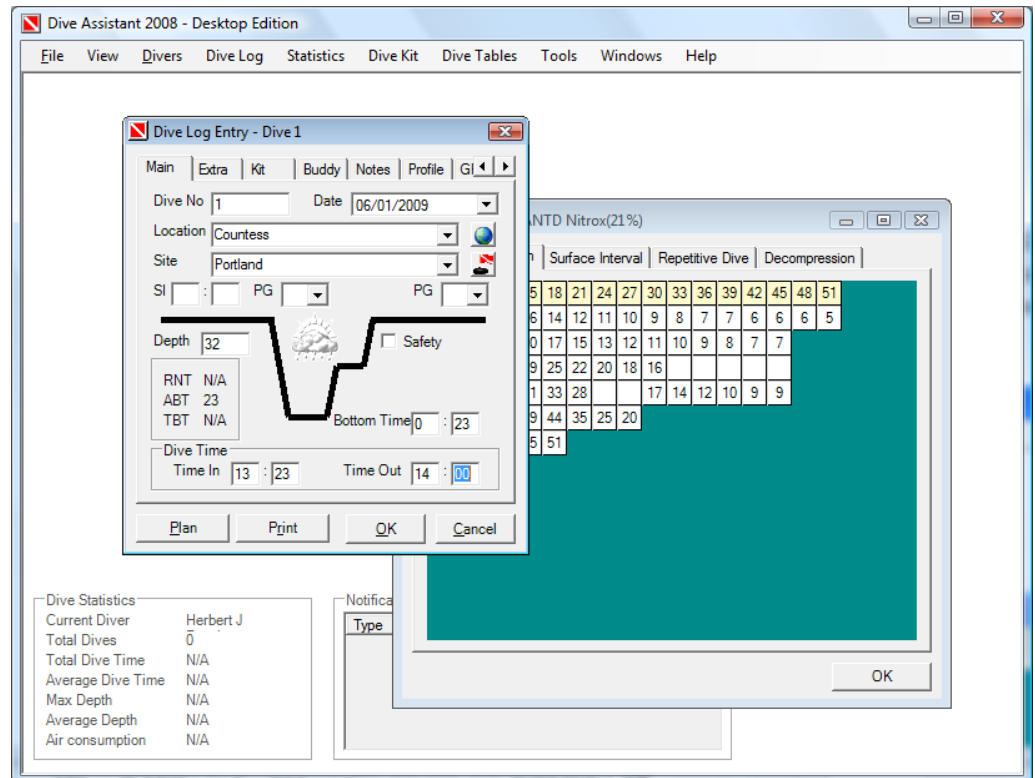
Normal Login

When you start Dive Assistant, and it's not your first time, you will see the login screen. The window will display a list of all the divers entered into the Dive Assistant. Select the diver you want to log in as and click the **OK** button.



Application

Dive Assistant is a multi document application. This means that it can display multiple windows within it at one time. This allows you display and compare multiple data records simultaneously. The screenshot below shows you this in use.



Main Menu

The main menu is the best way of navigating around the Dive Assistant. From the main menu you can access all parts of the application, from Diver details to Statistics and Dive Tables. From the main menu you can also reset the synchronization, import dive computer data and export data.

File View Divers Dive Log Statistics Dive Kit Dive Tables Tools Window Help

Dive Statistics & Notification

There are two windows that appear automatically in the main window. They are the Dive Statistics and Notification windows. They appear in the bottom left of the application window. Dive Statistics displays a summary of the statistics for the current diver. It automatically updates itself when you modify dive or diver details.

The Notification window displays the dive qualifications that need renewing and dive kit that needs servicing in the near future. The time in advance can be set in the Divers settings window.

You can choose to display or hide these windows from the main menu, under **View**.



Features

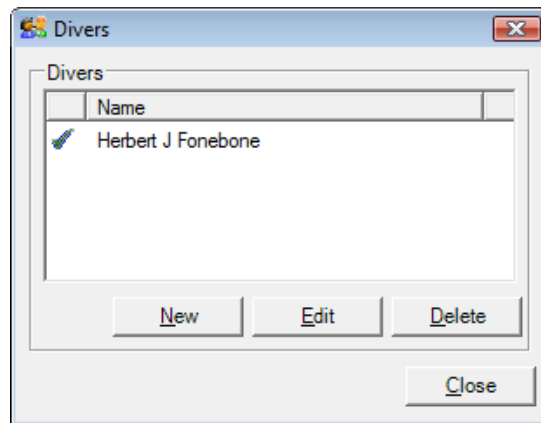
Dive Assistant – Desktop Edition has many features. You will find more details about them in later sections of this user guide. Here is a list of the main features:

- Dive Log
- Dive Planning
- Dive Profile
- Dive Tables Lookup
- Dive Kit Management
- Dive Qualifications Management
- Support for Multiple Divers
- GPS Support
- Dive Computer Import
- Dive Log Printing
- Statistics
- Alerting
- Weight Tables

Divers

Dive Assistant supports multiple divers. To get to the divers section click **Divers** in the main menu of the application. The Divers screen window will appear. The current diver has a tick next to it. It is possible to view and edit multiple divers' details at the same time.

You can change the ordering of the divers by clicking on the column you want to order the divers by.



Current Diver

You can specify the current diver when you log into the application, or by selecting the diver you want to set, right clicking on the list box and selecting Set Current from the popup menu. When you exit the Divers window the new Current Diver will be loaded.

New Diver

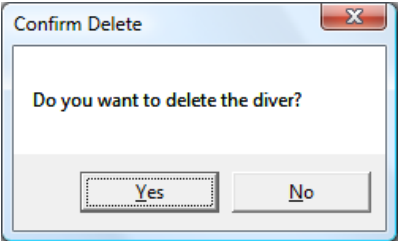
To add a new diver click the New button in the divers window or click New in the popup window that appears when you right click in the list. A new window called Diver will appear. When you save and close the Diver window the diver list will update itself with the new diver details.

Edit Diver

To edit an existing diver double click on a diver from the list or select a diver from the list and click the Edit button, or alternatively click Edit from the popup menu. When you choose to edit a diver, the Diver window will appear, with the diver name in the window name. When you save and close the Diver window the diver list will update itself.

Delete Diver

To delete a diver select the diver you want to delete and click the Delete button in the divers window or click Delete in the popup window that appears when you right click in the list. You will be asked to confirm the deletion of the diver.



Diver

The data within Dive Assistant is stored with reference to the divers, with exception of the Dive Tables. Each diver can record his or her own personal or dive related data. Look in the Divers section on how to add a new diver or update a diver.

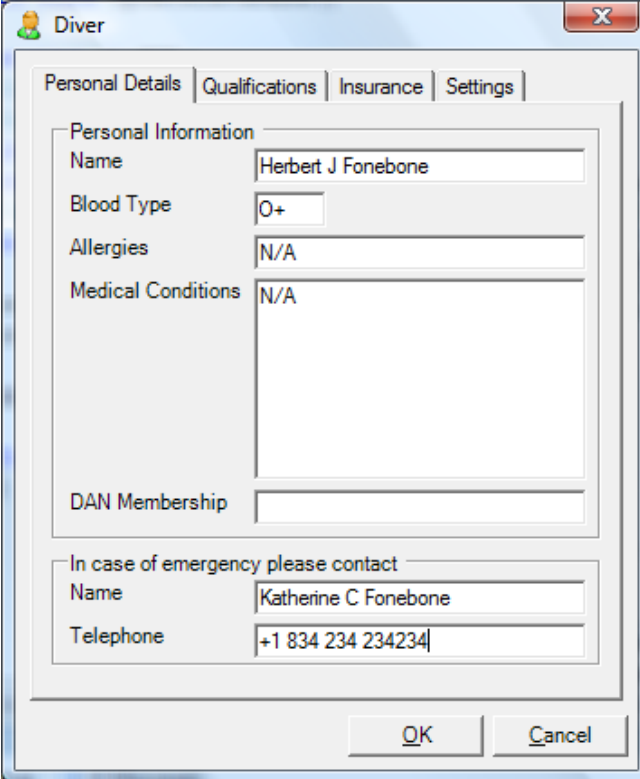
The Diver window contains the personalized details for the selected diver. It is possible to update multiple divers simultaneously, but you can only access the current diver's dive details, not any other divers' dive details.

The Diver window has 4 tabs:

- Personal Details
- Qualifications
- Insurance
- Settings

Personal Details

Personal Details allows you to set the diver's name, blood type, Allergies, Medical Conditions and Emergency Contact details. It's only function to store important static data.

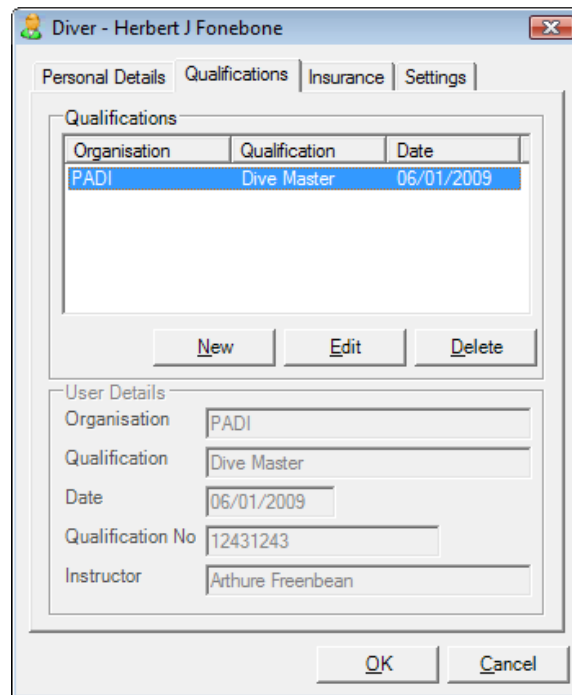


The screenshot shows a window titled "Diver" with a close button (X) in the top right corner. The window has four tabs: "Personal Details", "Qualifications", "Insurance", and "Settings". The "Personal Details" tab is selected. The window is divided into two main sections. The top section is titled "Personal Information" and contains four text input fields: "Name" (Herbert J Fonebone), "Blood Type" (O+), "Allergies" (N/A), and "Medical Conditions" (N/A). Below these fields is a "DAN Membership" text input field. The bottom section is titled "In case of emergency please contact" and contains two text input fields: "Name" (Katherine C Fonebone) and "Telephone" (+1 834 234 234234). At the bottom of the window are "OK" and "Cancel" buttons.

Field	Value
Name	Herbert J Fonebone
Blood Type	O+
Allergies	N/A
Medical Conditions	N/A
DAN Membership	
Emergency Contact Name	Katherine C Fonebone
Emergency Contact Telephone	+1 834 234 234234

Qualifications

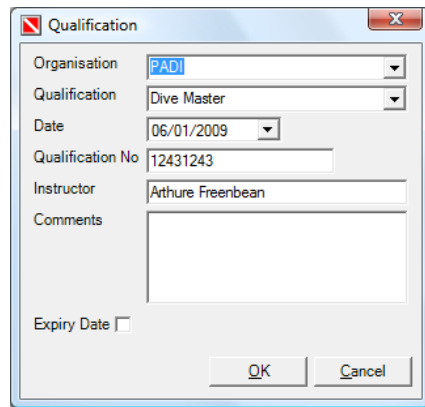
Dive Qualifications lists the qualifications for the selected diver. The top section contains the list, whereas the bottom section displays the qualification details for the selected qualification. Qualifications that have expiry dates set will appear in the Notification window on the main application window before they need renewal.



New Qualification

Click the New button in the Qualifications window to add a new qualification. Select the dive organisation from the Organisation drop down. This will update the Qualification drop down with the associated qualifications. Select the qualification you want to use. If your organisation or qualification does not exist you can manually enter them in the drop downs.

If you select the **expiry date** checkbox a date selection box appears. This option should be used if your dive qualification expires and needs renewal. Dive qualification that have expiry dates will appear in the Notification window when they are about to expire. The time to expiry is set in the settings window.



The 'Qualification' dialog box contains the following fields:

- Organisation: PADI
- Qualification: Dive Master
- Date: 06/01/2009
- Qualification No: 12431243
- Instructor: Arthure Freenbean
- Comments: (empty text area)
- Expiry Date:

Buttons: OK, Cancel

Edit Qualification

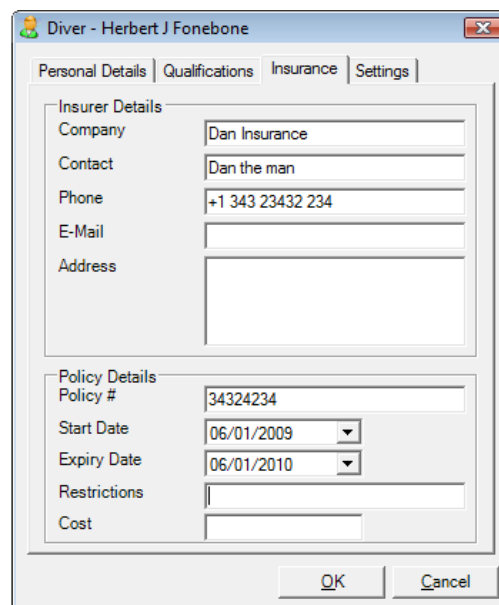
To edit a qualification double click on the qualification or select the qualification you want to edit and click the Edit button. The qualification window is exactly the same as the new qualification window.

Delete Qualification

To delete a dive qualification click on the qualification you want to delete and click the Delete button. This will remove the qualification.

Insurance

Insurance allows you to specify the Dive Insurance details. Like Personal Details, Insurance is used to record static data.



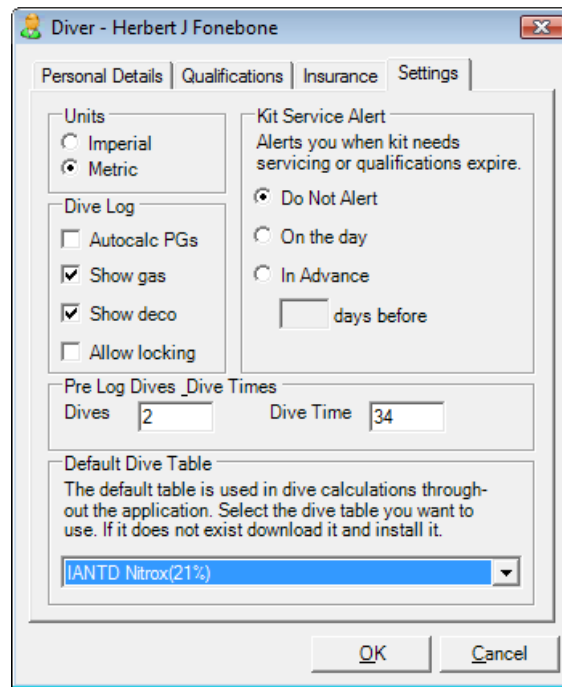
The 'Diver - Herbert J Fonebone' dialog box has tabs for Personal Details, Qualifications, Insurance, and Settings. The Insurance tab is active and contains the following fields:

- Insurer Details:**
 - Company: Dan Insurance
 - Contact: Dan the man
 - Phone: +1 343 23432 234
 - E-Mail: (empty)
 - Address: (empty)
- Policy Details:**
 - Policy #: 34324234
 - Start Date: 06/01/2009
 - Expiry Date: 06/01/2010
 - Restrictions: (empty)
 - Cost: (empty)

Buttons: OK, Cancel

Settings

The Dive Settings screen is one of the most important windows in the application, as it controls how many parts of the application work. The Settings screen is split into several parts. Each part will be described in detail.



Units

The units section consists of 2 radio buttons, **Imperial** and **Metric**. The setting you choose for unit determines the available dive tables for the dive plan, as well as the unit used to calculate dive statistics. Changing the units will not change the data within the individual dive log entries, so they would have to be changed manually.

Dive Log

The Dive Log box contains 4 check boxes. Each checkbox is independent of the other check boxes.

Setting **Autocalc PGs** means that dive times and pressure groups are automatically calculated when you fill in the fields in the dive log entry window. Pressure groups can only be calculated if you have a dive table set up in your settings.

Show deco and **Show gas** are extra fields in the dive log entry window. If you use multiple cylinders or have deco stops when you are diving you should check these boxes. If they are not checked the extra fields will not be visible. More details can be found in the Dive Log section.

Setting Allow locking allows you to lock individual dive logs so that they cannot be modified. The only fields that can be modified in the locked dive are ratings and notes. More details can be found in the Dive Log section.

Kit Service Alert

Kit service alert allows you to specify whether to notify when dive kit needs servicing and dive qualifications are expiring, and it also allows you to specify how long in advance to notify you. Do Not Alert will not notify you at all, On the day will only alert you on the day and In

advance will alert you by the number of days set in the days before field.

Pre Log Dives & Dive Times

You may not want to enter all your historical dives into the Dive Assistant. If that is the case then you may want to set the Dives and Dive Time fields. These two fields are used in the statistics part of the application, and will allow you to have a true representation of the total dives dive times you have.

Default Dive Table

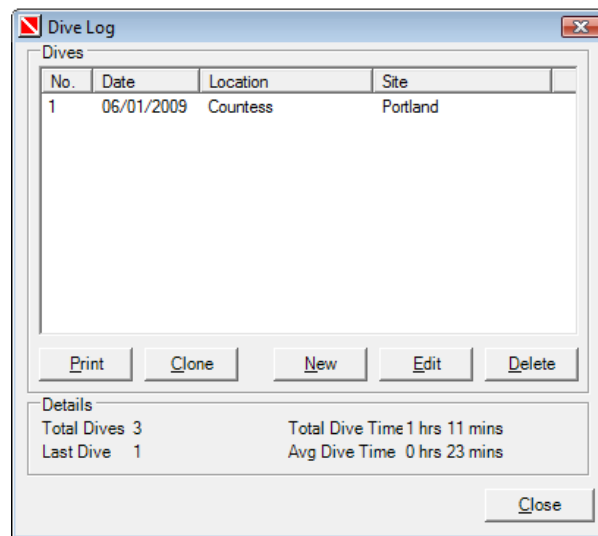
The default dive table is the dive table that is used in the calculations within the dive log section. Without a default dive table, the pressure groups cannot be calculated.

You can add new dive tables in the Dive Tables part of the application. Details can be found in the Dive Tables section.

Dive Log

Dive log is the core of Dive Assistant – Desktop Edition. To access the dive log section, click on the **Dive Log** in the main menu in the main application window. This will load the Dive Log window. The Dive log window displays a list of the dive number, dates, location and dive site for all the dives for the current diver. The ordering of the dives can be changed by clicking on the column you want to order the dives by.

The window also displays the dive total, the last dive number, the total dive time and the average dive time.



New

Click the New button or right click on the list and select **New** from the popup menu. This will open a new Dive Log Entry window. Once you have saved and closed the dive log entry window the dive list will automatically update the list and statistics appropriately.

Edit

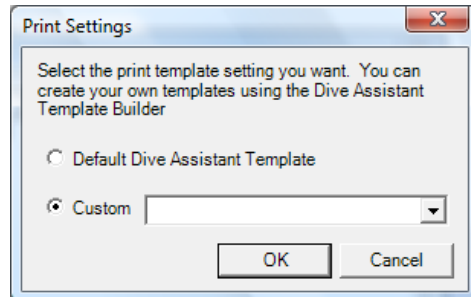
To edit a dive log entry double click on the dive or select the dive you want to edit and click the **Edit** button. The dive log entry window is exactly the same as the new dive window except that that the dive number will appear in the window's title.

Delete

To delete a dive log entry select the item you want to delete from the dive list. Click the Delete button or select **Delete** from the popup menu that appears when you right click on the dive list. This will remove the selected dive and update the list and statistics appropriately.

Print

Dive Assistant supports the printing of dive logs. One of the new features of Dive Assistant is the ability create your own print templates, using the Template Builder. The template builder is included with the Dive Assistant installation.

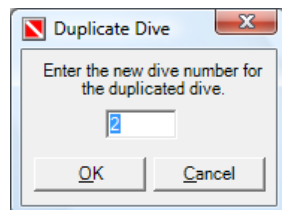


Select Default Dive Assistant Template if you want to print using the default template included with Dive Assistant. When you have created your own template copy it to the template directory. It will appear in the custom template list. Select the template you want to use as your regular template and click **OK**.

To print a dive log select the dive(s) you want to print and click the **Print** button. Alternatively you can right click on the list and click the **Print** item in the popup menu. Printing is also possible from the individual dive log entry windows.

Clone

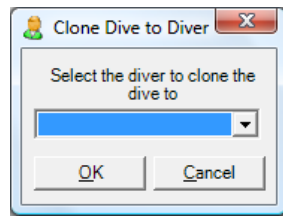
One of the more useful features of Dive Assistant is the ability to clone dives. Cloning a dive will create a new dive with most of the same details as the previous dive. When you clone a dive you will be requested to enter a new dive number for the cloned dive. Enter the new dive number and click **OK**. A new dive will be created it will be added to the dive log list. You can clone a dive by selecting a dive and clicking the **Clone** button. Alternatively you can select the dive, right click on it and select **clone** from the popup menu.



Clone To Diver

A new feature in Dive Assistant – Desktop Edition is the ability to clone a dive to a diver. This feature allows you to make a copy of a dive and add it to the dive log of another diver. To clone to a diver you must right click on the selected dive, right click on it and click **Clone to Diver** from the popup menu. A window will appear asking for a diver to clone to. Select the target diver and click **OK**. There is

no verification that the dive has been cloned, so you have to change the current diver to the target diver to verify that the cloning was successful.



Dive Log Entry

The Dive Log Entry screen contains all the details for an individual dive. The Dive Log Entry window contains 8 separate tabs with different purposes. The tabs in the Desktop Edition resemble those in the Pocket PC Edition with the exception of the Multimedia tab. The tabs are:

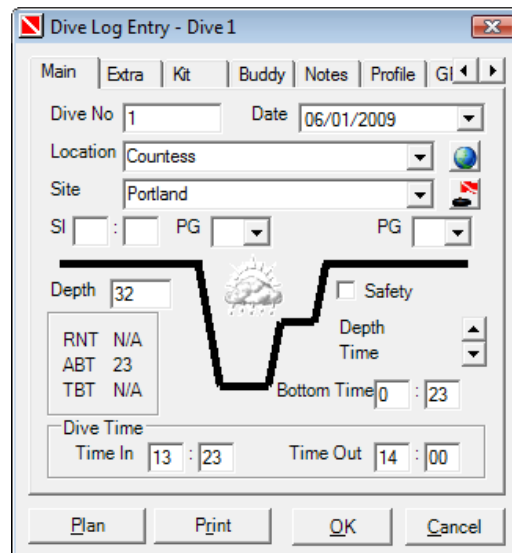
- Main
- Extra
- Buddy
- Notes
- Profile
- GPS
- Multimedia
- Settings

Dive plan is an essential part of the diving. Click the Plan button to access the dive planner. When you have finished using the planner you can opt to save the plan details into the current dive. Look at the Dive Plan section for more details.

The print button allows you to print the current dive log entry.

Main

The main tab contains the most important details of the dive. The data that's considered to be the most important are dive number, dive location, dive site, date, time and pressure group information. Some of the fields in the main window are calculated automatically based on other data and some of the fields are hidden away from view. The diver's settings determine if the values are calculated automatically and if certain fields are displayed or hidden. Fields that are automatically calculated can be overridden. Should you enter a field that affects the calculation then the overridden value will be automatically calculated. When a dive log entry is loaded no calculations are done. The calculations will only occur when the user interferes with the data.



All of the fields are not mentioned in this section:

Dive No

Dive No contains the dive number of the current dive. For a new dive it is set to the maximum dive number for the diver + 1. The dive number can be set manually, if you don't want to stick to the application's default dive number.

Location

Location is the location of the dive site. It is more of a geographical location rather than the site itself. You can select a location from the dropdown list, or manually enter your own location. The button next to the location textbox brings up the location window, where you can add your own locations to the location list. More details on the locations window can be found in the Location section.

Site

Site is the dive site itself. You can select a site from the dropdown list or manually enter it into the field. The drop down list is populated based on the location you have specified in the Location field.. The button next to the Site field loads the Dive Sites window. The Dive Sites window allows you to add, edit and delete dive sites.

SI

SI or Surface interval is the interval between the last dive and the current dive. This can be manually entered, or it can be automatically calculated for you. For auto calculation the SI requires a dive date, a time in and a time out for the previous dive.

Time Out

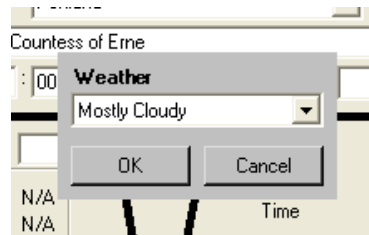
Time Out is automatically calculated based on the Bottom Time and the Time In, if Autocalc is set.

PG

PG in and PG out are automatically calculated if Autocalc is set. PG In uses the Time Out and PG Out of the previous dive, and the current dive table. PG Out is calculated based on the PG In, the Dive Time and the current dive table.

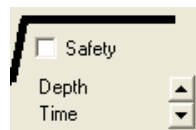
Weather

the middle of the tab is a small image showing the surface weather. Clicking on the image will bring up a small window with a drop down list. To change the weather select a weather description and click OK.

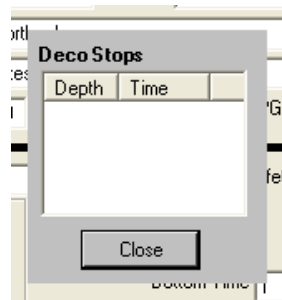


Deco Stops

Deco Stops are only visible when deco stop is enabled in the user settings. The deco stops appear below the safety stop check box, and can be cycled through using the up and down arrow.

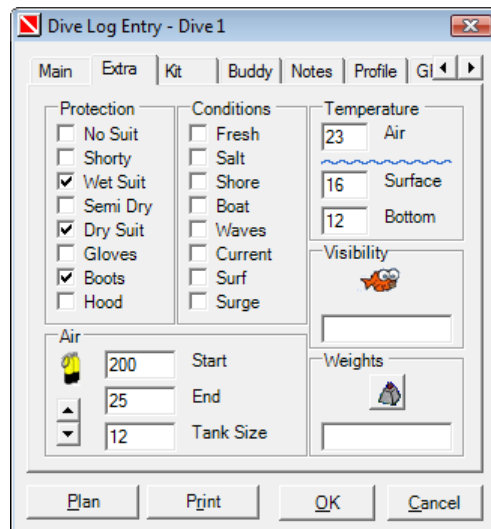


To display the deco stops window, right click within the deco stops area and select Show Deco Stops from the popup menu. A small window will appear in the middle of the dive log entry window. You can add, update and delete deco stops by right clicking in the deco stops list, and selecting from the popup menu.



Extra

The Extra tab contains data regarding the dive conditions and dive kit. On the far left there is the protection box. Next to it is the conditions box. Both of these consist of check boxes, which allow you to select multiple options. The temperature, visibility and weight fields are all text fields and can contain any text. In the weight box there is a weight button. Clicking this will open the weight table window.

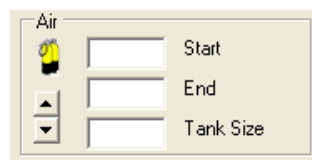


Weight table

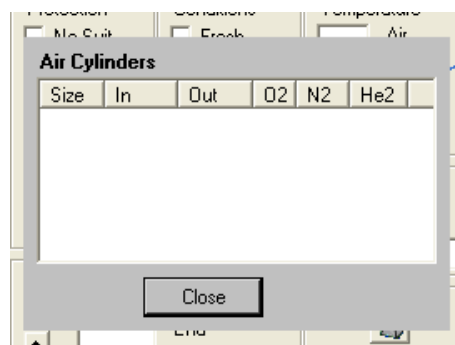
The Weight table window is not tied to the Dive Log Entry window and data will not transfer from the weight table window to the Dive Log Entry window. More details about the weight tables can be found in the Weight table section.

Air

The Air section contains the details regarding your dive cylinder(s). If you are only using a single cylinder you should enter data directly into the air fields. If you are using multiple cylinders you should use the multiple gas cylinders option. If you have set Show Gas in the user settings you can display the gas cylinders in the same way as deco stops. You can navigate through the cylinders using the up and down arrows.



Right click anywhere in the Air section and a popup will appear, with Show Air Cylinders as the only option. Click the menu item and a window will appear in the Dive Log Entry window. Right clicking in the list in the Air Cylinder window and a popup will appear. Use the options to add, update and delete cylinders.

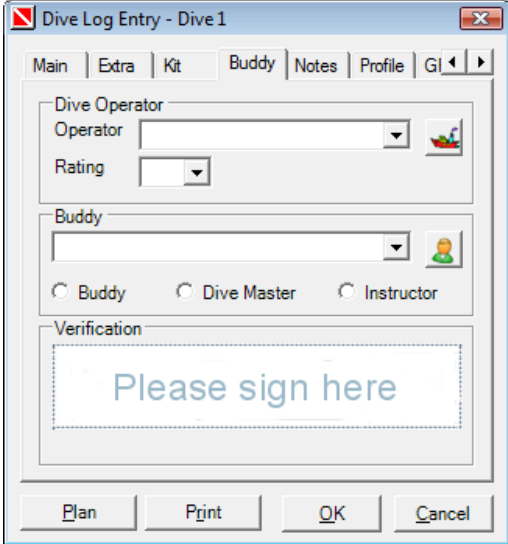


Buddy

The Buddy tab contains dive buddy as well as dive operator details. There are two fields for dive operators. The operator field, allows you to enter the name of the operator. The drop down allows you to set the rating for the operator, between 0 and 10. You can select a dive buddy from the drop down list, or enter your own buddy. To update the buddy list click on the button next to the buddy drop down. The buddy window will open. More details on the buddy window can be found in the buddy section.

Verification

The verification field can contain the signature of the dive buddy you dived with. Signatures must be entered on the Pocket PC and synced up with the Desktop Edition. When a dive log is unlocked, the signature disappears.



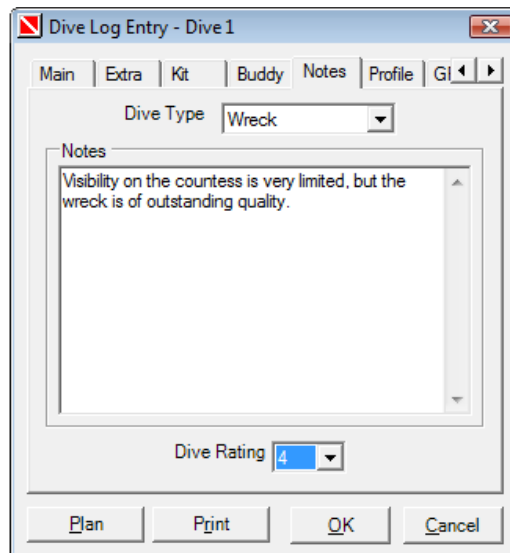
The screenshot shows a software window titled "Dive Log Entry - Dive 1". It features a tabbed interface with "Buddy" selected. The "Dive Operator" section has an "Operator" dropdown and a "Rating" dropdown. The "Buddy" section has a "Buddy" dropdown and radio buttons for "Buddy", "Dive Master", and "Instructor". The "Verification" section is a large dashed box containing the text "Please sign here". At the bottom are "Plan", "Print", "OK", and "Cancel" buttons.

Lock/Unlock

A new feature in Dive Assistant 2006 is the ability to lock and unlock dives. Locked dives prevents you from modifying dive details. The only editable fields are Operator rating, Dive Rating and Notes. All other fields are locked down. When you unlock a dive, the signature is cleared. The use of locking/unlocking is set in the diver's settings.

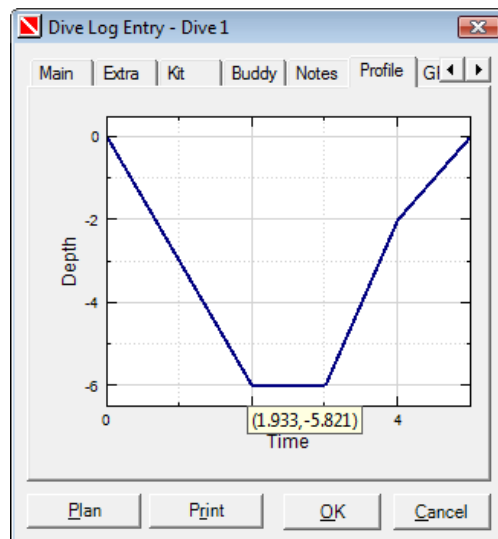
Notes

The notes tab only contains three fields, Dive Type, Notes and Dive Rating. Dive Rating and Dive Type are non editable dropdown lists. Notes is a freeform text field.



Profile

Dive Profile can display a profile of your dive. The profile can be loaded through the Dive Computer Import or it can be entered manually.



Double clicking in the profile tab displays the Profile List window within the Dive Log Entry window. The profile list window displays all the profile times and their corresponding depths. Right clicking on the list bring up a popup menu. The menu has Add, Update and Delete options. Clicking Add or Update will allow you to add/modify an individual profile entry.

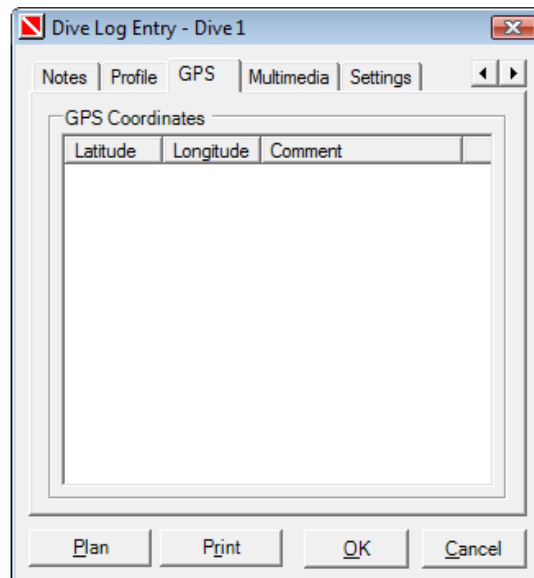
Time	Depth
0	0
1	1
2	3
3	4
4	3
5	1
6	0

Dive computers store profile times in second intervals, be it 1, 20 or 30 second intervals. The x or time axis can therefore easily display values in the thousands. If you manually enter profile data for a dive you can set the interval to mean minutes or other values.

Look in the Dive Computer Import section for more information in importing dive profiles.

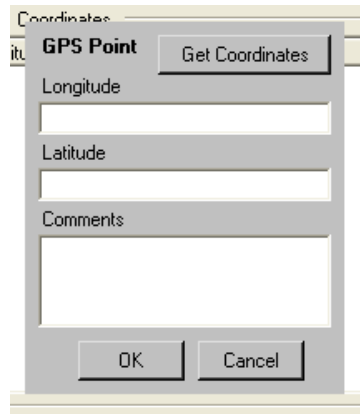
GPS

One of the newer features is GPS support. Within each dive log entry you may add a number of GPS coordinates with attached comments. You may manually enter the coordinates, or load them from the GPS device.



Right click on the list to bring up the GPS coordinate popup menu. The popup menu has **Add**, **Update** and **Delete** options. Clicking **Add** or **Update** displays the GPS Point window. You can manually enter the coordinates into the window or download from the GPS unit. To download from the GPS unit click the **Get Coordinate** button. This will open the GPS window, and retrieve the GPS point. If the GPS connection has not been started it will return coordinates 0, 0. Start the

GPS connection and click **Get Coordinates** again. For more information regarding the GPS window goto the GPS section.



The image shows a software dialog box titled "Coordinates". Inside the dialog, there is a sub-header "GPS Point" followed by a "Get Coordinates" button. Below this are three input fields: "Longitude", "Latitude", and "Comments". The "Comments" field is a larger text area. At the bottom of the dialog are two buttons: "OK" and "Cancel".

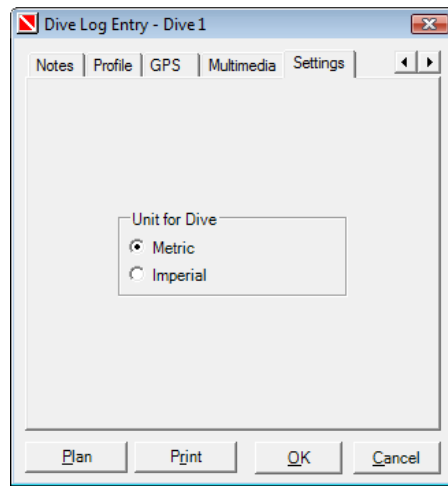
Multimedia

You can add photos to your dive log entries, in the multimedia tab. The Multimedia tab allows you to navigate between different images. Use the forward and backward buttons to move between the images. To view an image at full size double click on it and the image will appear in a new window at full resolution.

To maintain the photo archive, click the Maintain button. This will load up the Photos window. The Photos window lists all the photos for the dive log entry. You can Add, Update and Delete photos by clicking on the corresponding button, or right clicking on the list and selecting your option from the popup menu. Clicking New or Update opens the Photo window, where you can specify the image to use and the comment to describe the image.

Settings

There is a separate Setting window for the Dive Log Entry. The Settings tab has a single field: Unit for Dive. The field allows you to set a specific unit for each dive you do. If you don't specify a unit the dive will default to the user's unit. Changing the unit for a dive will not change the details of the dive to the other unit. The unit is used allow you to see what unit the dive is in as well as being used in the dive statistics calculations.



Dive Plan

The dive plan has undergone a serious makeover in the current edition. Instead of being just a simple planning tool it is now a suite of tools that can help you plan you dive. The dive plan can only be loaded from a dive log entry. To load Dive Plan click on the **Plan** button in a **Dive Log Entry** window. The Dive Plan window has 4 tabs:

- Plan
- Nitrox
- Calculator
- Nitrox Wizard

Plan

The plan tab automatically loads the date, time, depth and PG (out) from your last dive. As the new Date, and Time In are populated SI is automatically populated. When a dive table is selected PG (In) is populated. The limits on the depth bar, and maximum dive times is also populated when a table has been selected. As the depth changes the maximum dive time is updated. Once a dive time has been entered the new PG (Out) is calculated.

Clicking **OK** in the plan transfers the details from the plan into the current dive log entry. Clicking **Cancel** closes the plan without transferring the details. Data from the Nitrox, Calculator and Nitrox Wizard tabs is not transferred to the current dive log entry.

The screenshot shows the 'Dive Plan' window with the 'Plan' tab selected. The window contains the following fields and controls:

- Previous Dive:** Date (06/01/2009), Time Out (14:00), Depth (9.7536), PG (Out)
- New Dive:** Date (07/01/2009), Time In (), Dive Table (IANTD Nitrox(21%)), SI, PG (In)
- Depth / Time:** Depth (0), Max Time (51)
- Bottom Time:** Bottom Time (), PG (Out), PG (), Use deco (checkbox)
- Buttons:** OK, Cancel

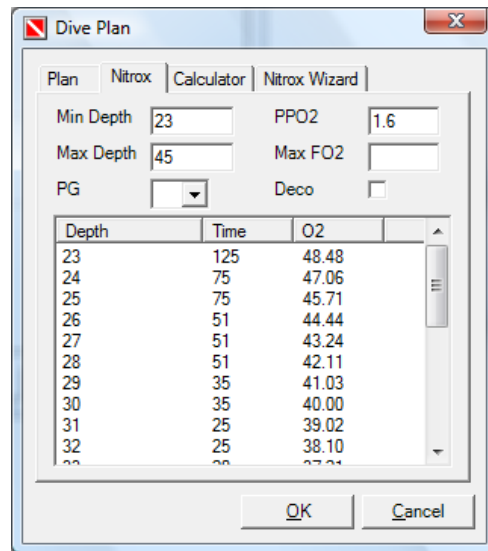
Nitrox

Nitrox calculates and displays the maximum dive time and optimal O2 mix for each depth between the min and max depth. You can restrict the FO2, by setting a Max FO2. Other parameters that affect the

results are PG and Deco. PG allows you to specify PG (In) for the dive, and Deco uses the decompression tables to give you the maximum decompression times.

The results automatically update themselves when you change any of the parameters.

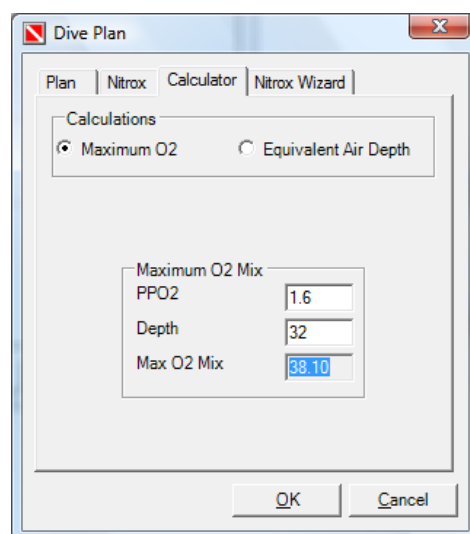
Nitrox requires the IANTD Air dive tables to work.



Calculator

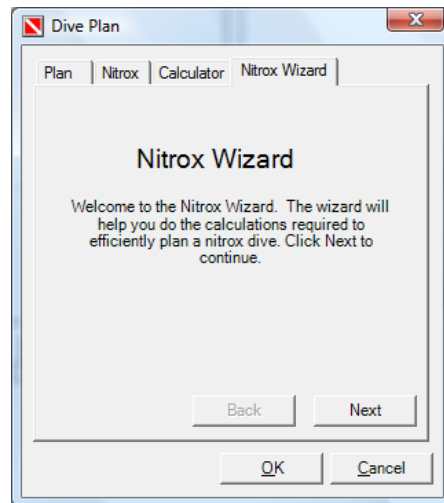
Calculator gives you basic Nitrox calculations. Maximum O2 calculates the Maximum O2 mix that can be used given a PPO2 and a Depth.

Equivalent Air Depth (EAD) calculates the EAD based on the O2 Mix and Depth entered.



Nitrox Wizard

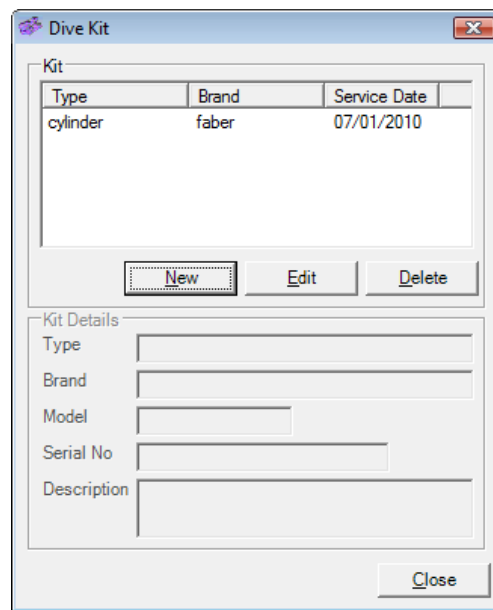
Nitrox Wizard consists of four screens. The first screen requests a PPO₂ (partial pressure of Oxygen). The recommended PPO₂ is 1.4 or 1.5. The next screen requests a depth. This is followed by the Air Mix screen. Air Mix calculates the maximum O₂ mix for the depth/PPO₂ combination and requests the actual O₂ Mix used. Finally the results screen displays the maximum depth, and dive times given the FO₂, PPO₂ and IATND Air tables.



Dive Kit

Dive Kit is a dive kit management system. It can keep a track of all your dive kit, including service history and next service date. If alerting is set in the diver's setting window, notifications will occur when dive kit needs servicing. To access it click the Dive Kit menu item on the main menu.

The top part of the window lists all the dive kit, the bottom part displays the details of the currently selected kit item.



New Kit Item

To add a new kit item click the New button in the kit window or click New in the popup window that appears when you right click in the list. A new window called Dive Kit Item will appear. When you save and close the Dive Kit Item window the kit list will update itself with the new kit details.

Edit Kit Item

To edit an existing kit item double click on an item from the list or select a kit item from the list and click Update, or alternatively click Edit from the popup menu. When you choose to edit a kit item, the Dive Kit Item window will appear, with the type, and brand in the window name. When you save and close the Dive Kit Item window the kit list will update itself.

Delete Kit Item

To delete a dive kit item select the item you want to delete and click the Delete button in the Dive Kit window or click Delete in the popup

Dive Kit Item

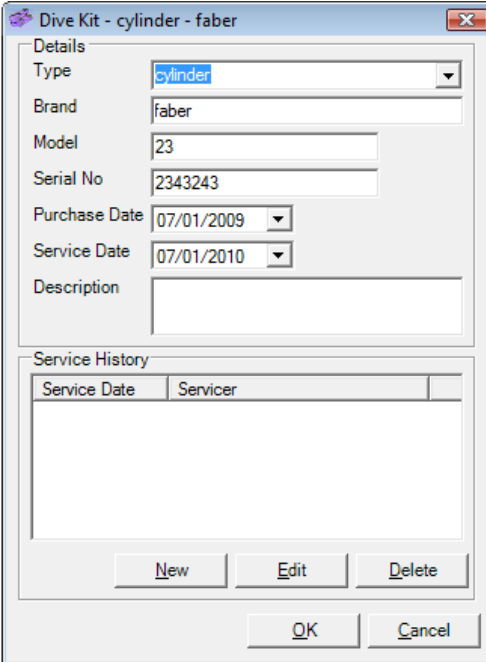
The Dive Kit item window contains all the details for a dive kit item. The screen has fields for kit type, brand, model, serial number, purchase and service date and description. Dive Kit item can also record all dive kit services.

Type

The type field is an editable dropdown list. A number of dive kit types pre-populate the field, but if your kit type is missing you can enter your own type

Service Date

The Service Date, like the Purchase Date is a date control. Click on the drop down to get a calendar popup. Select a date from the popup and the date is transferred to the date field. If Alert is set in the diver's settings, notifications will occur based on the Service date of the dive kit item.



The screenshot shows a window titled "Dive Kit - cylinder - faber". It contains a "Details" section with the following fields:

- Type: cylinder (dropdown)
- Brand: faber (text)
- Model: 23 (text)
- Serial No: 2343243 (text)
- Purchase Date: 07/01/2009 (dropdown)
- Service Date: 07/01/2010 (dropdown)
- Description: (empty text box)

Below the details is a "Service History" section with a table:

Service Date	Servicer

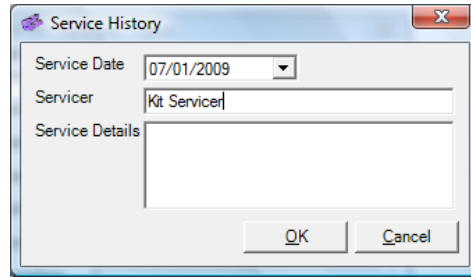
At the bottom of the window are buttons for "New", "Edit", "Delete", "OK", and "Cancel".

Service History

Dive kit items can record multiple dive services. They appear in the Service History list in the Dive Kit items window. Each service has a service date, servicer and service details.

New Service

To add a new service click the **New** button or right click on the list and select Add from the popup menu. When the Service History window is open, no other windows can be edited. Clicking **OK** in the window saves the history, closes the window and adds the service to the Dive Kit item service history list.



Edit Service

To edit an existing service double click on an item from the list or select a service from the list and click Edit, or alternatively click Edit from the popup menu. When you choose to update a service, the Service History window will appear. When you save and close the Service History window the service history list will update itself

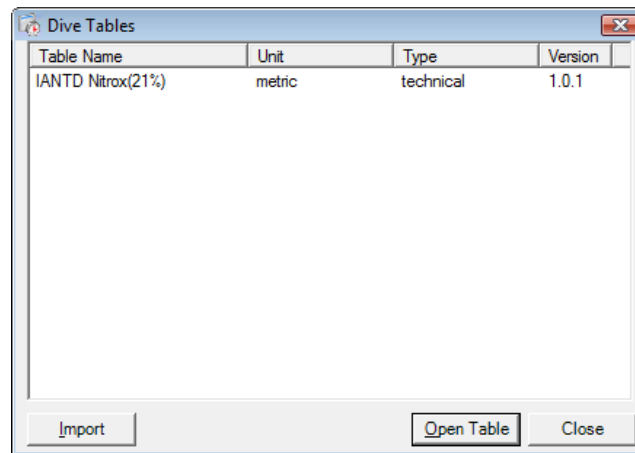
Delete Service

To delete a service select the item you want to delete and click the Delete button in the Service History window or click Delete in the popup

Dive Tables

Dive Assistant supports most dive tables on the market. It uses the dive tables in dive planning and dive logging, as well as displaying them as lookup tables. Blackwave cannot distribute PADI, BSAC or NAUI dive tables as organisations will not license their dive tables to 3rd parties. A Dive Tables Creator application is available from Blackwave to write your own dive tables.

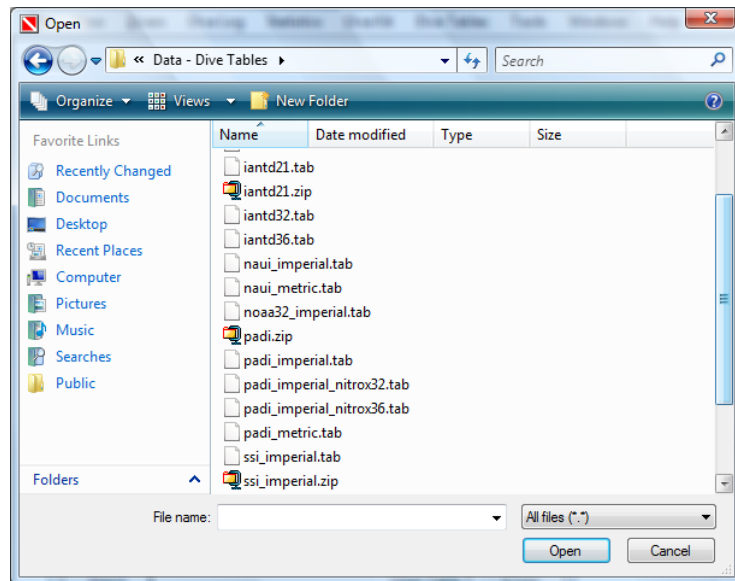
Clicking Dive Tables in the main menu opens the Dive Tables window. The window lists all the dive tables currently installed in the application. The dive tables list is general to the application rather than specific to the current diver. From the Dive Tables window you can import dive tables, or view existing dive tables.



Import

To import a dive table, click the Import button on the Dive Tables window, or right click on the dive table list and click Import from the popup menu. An Open dialog will appear. Click the dive table you want to import and click Open. This will load the dive table into the application.

Dive tables are stored in .tab files. These files are XML documents. A number of dive tables are available from the Blackwave website. If you want to use other dive tables you can write your own dive tables using a text editor or the Dive Tables Creator from Blackwave.



Lookup Dive Table

To lookup a dive table double click on the dive table you want to view. Alternatively select the dive table and click the Open Table button.

When you open one of the dive tables you will see the dive table window for your selected table. Each table has between 3 and 4 tabs, each tab representing one of the tables associated with that table. SSI have 3 and tabs while the IANTD and NAUI and NOAA have 4. There is always one "no decompression" table, one "surface interval" table and one "repetitive dive" table. If you are using the IANTD, NAUI or NOAA tables the 4th tab is the decompression table.

	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51
A	25	19	16	14	12	11	10	9	8	7	7	6	6	6	5
B	37	25	20	17	15	13	12	11	10	9	8	7	7		
C	55	37	29	25	22	20	18	16							
D	81	57	41	33	28		17	14	12	10	9	9			
E	105	82	59	44	35	25	20								
F	130	125	75	51											

The tables are displayed in a similar way to how the respective dive organizations display them, so they should be easy to interpret. On the decompression tab you get a drop down list at the top of the screen. The drop down list allows you to select the depth you are diving to. When you select a depth, the corresponding decompression table

appears. When you are finished with the dive table click on the OK button to close the window. You can display multiple tables windows simultaneously.

Delete Dive Table

Select the table to delete and right click in the dive tables list. A menu will appear. Click the Delete option, and the dive table will be deleted.

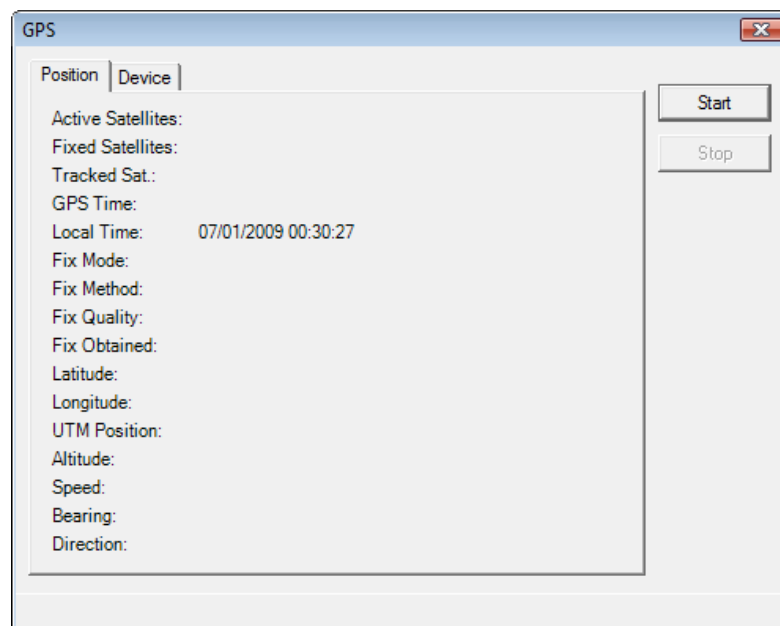
GPS

The GPS window can be opened through the main menu **Tools > GPS...** The window can also be opened from the GPS Point window in the Dive Log Entry window.

The GPS connection is Off by default. To connect to the GPS unit set the Baud Rate and COM port for the device and click the **Start** button. Alternatively you can leave the Baud Rate and COM port to Automatic, and let it locate the device automatically.

Clicking the **Start** button connects the application to the GPS receiver. This may take a few seconds. The GPS unit will connect GPS satellites and stream data to the GPS window. As the data changes so does the GPS window.

Click the **Stop** button to disconnect from the GPS receiver. The connection is automatically broken when the GPS window is closed.



The GPS window has 2 tabs:

- Position
- Device

Position

The position tab displays a summary of the GPS data. It displays the number of active satellites, fixed satellites and tracked satellites. It also shows the time, location, direction, speed, altitude and bearing.

Satellites

The satellites tab displays a list of all the satellites located by the GPS receiver. For each satellite PRC, Elevation, Azimuth and Signal

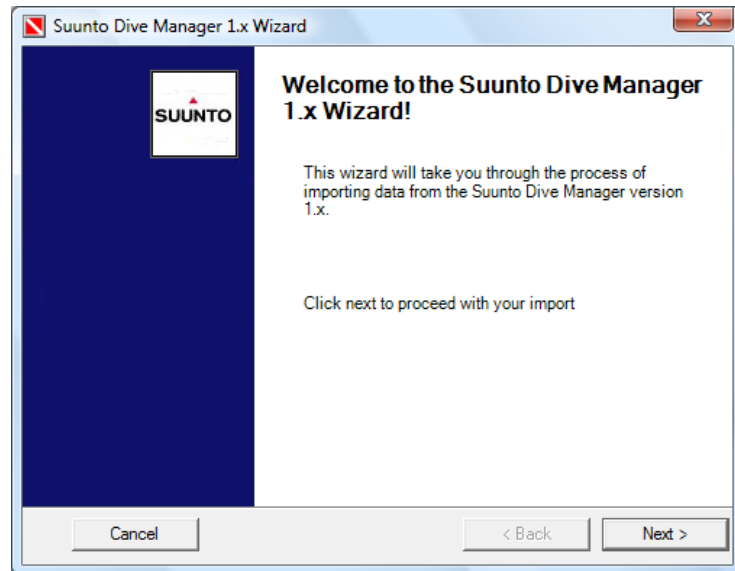
Strength are reported. The tab also displays a map showing where each satellite is located in relation to the receiver.

Device

The device tab displays details regarding the GPS receiver.

Dive Computer Import

Dive Computer Import allows you to import dive log, location and dive profile data from your Dive Computer or Dive Computer application. Dive Assistant supports the import of dive data from the following dive computer applications:



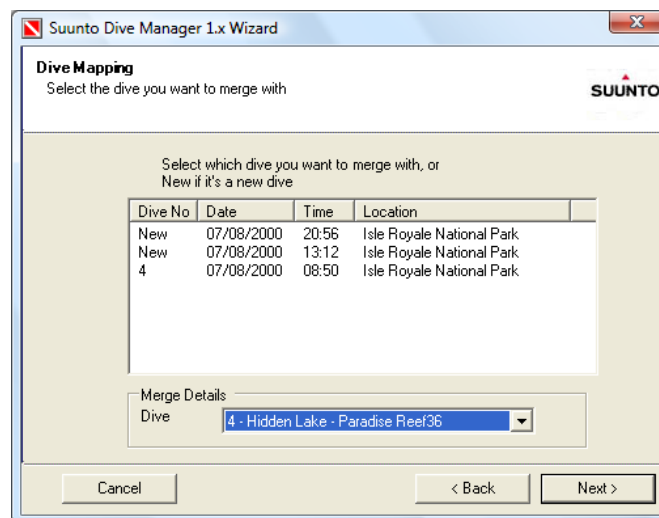
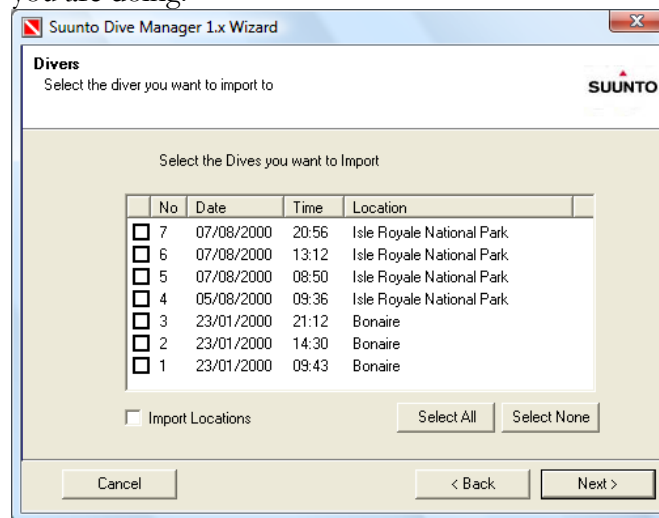
- Aeris
- Citizen
- Mares IRIS
- Oceanic
- Reefnet Sensus Pro Manager
- Sherwood Wisdom
- Suunto Dive Manager 1.x
- Suunto Dive Manager 2.x
- Universal Dive Computer Format
- Uwatec SmartTrak
- And more....

Dive Computer Import is done using Wizards. The Wizards can be accessed from the main menu of the main application window. The Wizards are menu items under File > Dive Computer Import.

Some of the wizards import data from text files, others import their data from databases or XML documents. Each wizard works slightly differently, but all have some common elements. Each wizard imports dive profile data, and allows you to map the dives to existing dives or new dives.

All the wizards allow you to import dive locations into your locations list. To import dive locations check the Import Locations check box.

The box appears in different screens depending on the type of import you are doing.



Aeris

The Aeris Wizard imports data from the Aeris PC application. IRIS stores its dive log in dlg files. The wizard loads multiple dives at a time. Date, Time and Location are attributes that are imported for each dive, as well as the profiles for the dives. You can opt to import any of the dives, and map them to any dives in the dive log or create new dives.

Citizen

The Aeris Wizard imports data from the Aeris PC application. IRIS stores its dive log in CSV files files. The wizard loads multiple dives at a time. Date, Time and Location are attributes that are imported for each dive, as well as the profiles for the dives. You can opt to import any of the dives, and map them to any dives in the dive log or create new dives.

Mares IRIS

Mares IRIS Wizard imports data from the Mares IRIS PC application. IRIS stores its dive log data in Microsoft Access MDB files. The wizard loads multiple dives at a time. Date, Time and Location are attributes that are imported for each dive, as well as the profiles for the dives. You can opt to import any of the dives, and map them to any dives in the dive log or create new dives.

Oceanic

The Oceanic Wizard imports data from the Oceanic PC application. Oceanic stores its dive log in dlg files. The wizard loads multiple dives at a time. Date, Time and Location are attributes that are imported for each dive, as well as the profiles for the dives. You can opt to import any of the dives, and map them to any dives in the dive log or create new dives.

ReefNet Sensus Pro Manager

ReefNet Sensus Pro Wizard imports individual dives from the Sensus Pro Manager PC application. The application stores its dives in text files with extension .dat. Each DAT file contains one dive. As a result the Wizard only loads a single dive at a time.

Sherwood Wisdom

The Sherwood Wisdom Wizard imports data from the Sherwood Wisdom PC application. Sherwood Wisdom stores its dive log in mdb files. The wizard loads multiple dives at a time. Date, Time and Location are attributes that are imported for each dive, as well as the profiles for the dives. You can opt to import any of the dives, and map them to any dives in the dive log or create new dives.

Suunto Dive Manager 1.x

The Suunto Dive Manager 1.x Wizard imports data that has been exported from Suunto Dive Manager 1.x. An export from the dive manager consists of 4 files:

```
{filename}.csv  
{filename}$NOT.csv  
{filename}$DGE.csv  
{filename}$PRO.csv
```

When importing the dive log data, select the file called {filename}.csv. The files contain multiple dives with dive details and profiles.

Suunto Dive Manager 2.x

Suunto Dive Manager 2.x exports CSV text files. The exported files only contain dive profile data, no dive log data. Each file contains data for one dive only.

Universal Dive Computer Format

Universal Dive Computer Format or UDCF files are XML documents. Each file can contain multiple dives, with extensive dive details, as well as dive profile data.

Uwatec SmartTrak

SmartTrak can export to multiple dive formats. Dive Assistant supports the “Profile as text” type. The text file only contains the profile details for the exported dive.

Synchronization

Dive Assistant – Pocket PC Edition and Dive Assistant – Desktop Edition can synchronize data between them. The synchronization process is initiated from the Pocket PC. When a user clicks Sync on the Pocket PC a synchronization window will appear in the Desktop Edition. The data that is synchronized is:

- Buddies
- Diver details
- Emergency details
- Kit (including kit history)
- Locations
- Dive Sites
- Logs (including deco stops, gas mixes, signatures and GPS details)
- Profiles
- Qualifications
- Weights

How it works

The synchronization process starts by the Pocket PC making contact with the Desktop Edition, when the user clicks Sync on the Pocket PC. This loads the Sync window on the Pocket PC and Desktop editions. The process for synchronization is then:

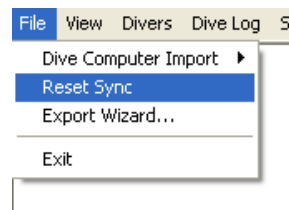
1. Pocket PC loads all the data that has changed on the Pocket PC since the last synchronization. This includes deleted data, new data and modified data. The data is then transferred to the Desktop in an XML file (PocketPC.xml).
2. Desktop loads all the data that has changed on the Desktop since the last synchronization. This includes deleted data, new data and modified data. Desktop also loads transferred Pocket PC data and internal mapping tables. The mapping tables map Desktop records with Pocket PC records.
3. Desktop deletes all Pocket PC deletions. When a record is deleted the mapping record is also deleted. Desktop then adds all the new records from the Pocket PC. New data records get new mappings added. In the case when a mapping already exists Desktop compares the Pocket PC record with Desktop record. If the Pocket PC record is newer than the Desktop record, then the desktop record is overwritten by the Pocket PC record. If the Desktop record is newer than the Pocket PC record then the Desktop record is added to a file to be sent to the Pocket PC. The file for the Pocket PC also contains all the new Desktop records and deleted Desktop data.
4. Desktop transfers data file to Pocket PC (desktop.xml) and Pocket PC loads changes into Pocket PC.
5. Synchronization completes.

Most of the synchronization processing occurs on the Desktop. The Pocket PC loads data, to be sent to the Desktop and saves/deletes data sent from the Desktop. When new data is added to either system a new mapping is created, to map the record to a new record on the other device. The only case when this is not true is when two divers with the same name are added to both the Desktop and the Pocket PC. In this case the two records are mapped to each other.

Reset Sync

Reset Sync sets the last synchronization date to be the 1st of January 2000. This forces any synchronizable data changed after that date to be synchronized. In practice it means that all records will be resynchronized. To perform a proper reset you must reset on the Pocket PC and Desktop before running a synchronization. Synchronization will take much longer than normal if your dataset is big.

To run Reset Sync click File > Reset Sync in the main menu.

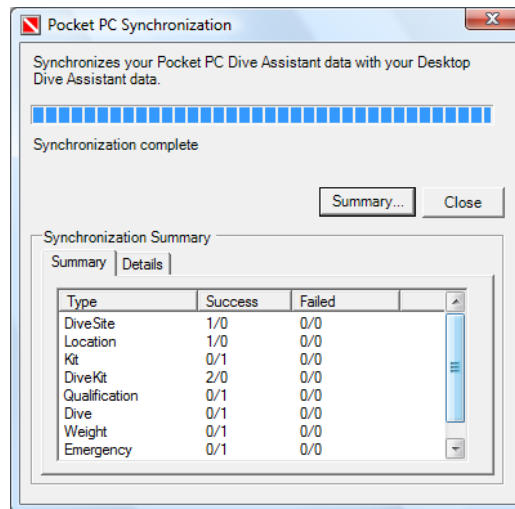


Cancel Sync

You cancel the synchronization from the Pocket PC or Desktop Editions by Clicking the Cancel button. If cancellation occurs on one system the other system recognises the event and stops it's part of the synchronization process. Cancelling the sync does not roll back the applications to their pre synchronization states. Any changes that have been committed will stay. As the cancellation occurs before the system sets it's last synchronization date stamp, all the data records that were being synced will be synced again as a precaution.

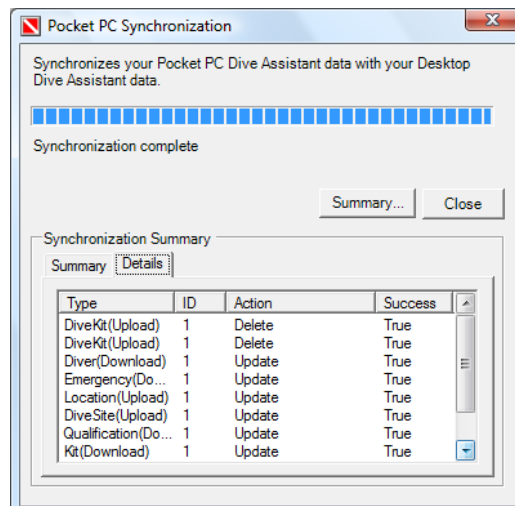
Result

When a synchronization has completed the status will say Synchronization complete. There may also be a message indicating that errors occurred. Once the synchronization has completed a Summary button appears. Clicking the button allows you to see a summary of the synchronization. The Summary tab displays a summary for each data type and the details tab gives you specific detail about each data record.



The list in the Summary tab contains a row for each data type that is being synchronized. For each type there is a success column and a failed column. The success column displays the successful uploads followed by the successful downloads of that type, separated by a “/”. The failed column does the same.

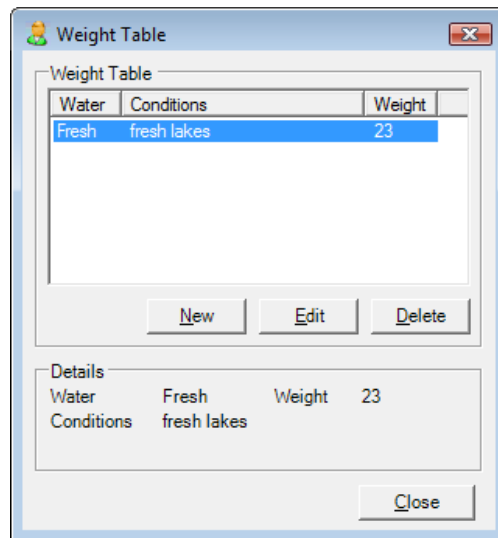
Successful upload means that the records were successfully loaded from the desktop and sent to the Pocket PC, but does not mean that they were successfully imported into the Pocket PC. The Summary on the Pocket PC would provide that information. If there are failures, it's worth checking the Details tab for the errors. There is also a log file that's populated when events occur, and any failures will be detailed in the log.



Other

Weight Table

Weight table can be accessed from the main menu Tools > Weight Table... or by clicking on the weight button in Dive Log Entry windows. Weight Table lists weights, and the water type and conditions under which those weights are used. The weight tables make it easy to plan the weights required for specific dives. The type of protection worn and the water type make a big difference in the weights required.



New Weight

To add a weight click the New. When the Weight window is open. Clicking OK in the window saves the weight, closes the window and adds the weight to the Weight Table list.

Edit Weight

To edit an existing weight double click on an item from the list or select a weight from the list and click the Edit button. When you choose to edit a weight, the Weight window will appear. When you save and close the Weight window the list will update itself

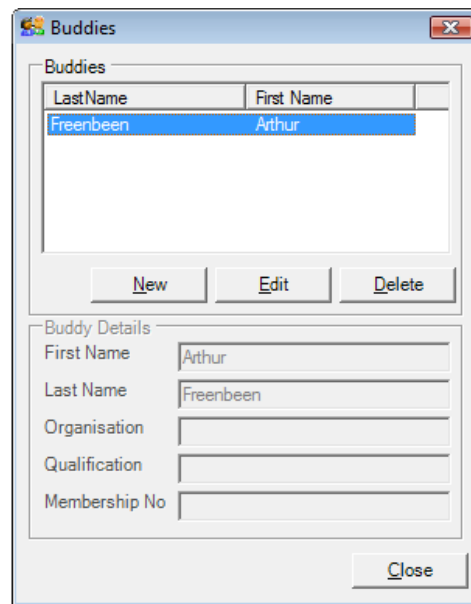


Delete Weight

To delete a weight select the item you want to delete and click the Delete button.

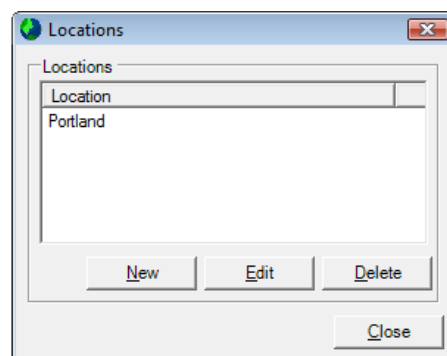
Buddies

Buddies can be accessed from the main menu **Tools > Buddies**. The window can also be accessed from the Buddy tab in the Dive Log Entry windows. The buddies in the buddy list are used to populate the buddy drop down list in the Dive Log Entry window(s). As buddies are added, modified or deleted the buddy list is changed, as are the drop downs in the Dive Log Entry windows.



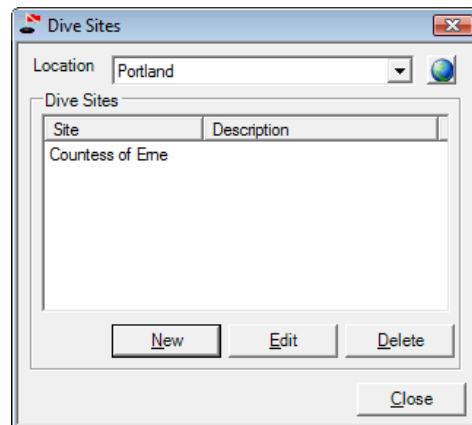
Locations

Locations can be accessed from the main menu **Tools > Locations**. The window can also be accessed from the Main tab in the Dive Log Entry windows. The locations in the location list are used to populate the location drop down list in the Dive Log Entry window(s). When locations are added, modified or deleted the location list is changed, as are the drop downs in the Dive Log Entry windows.



Dive Sites

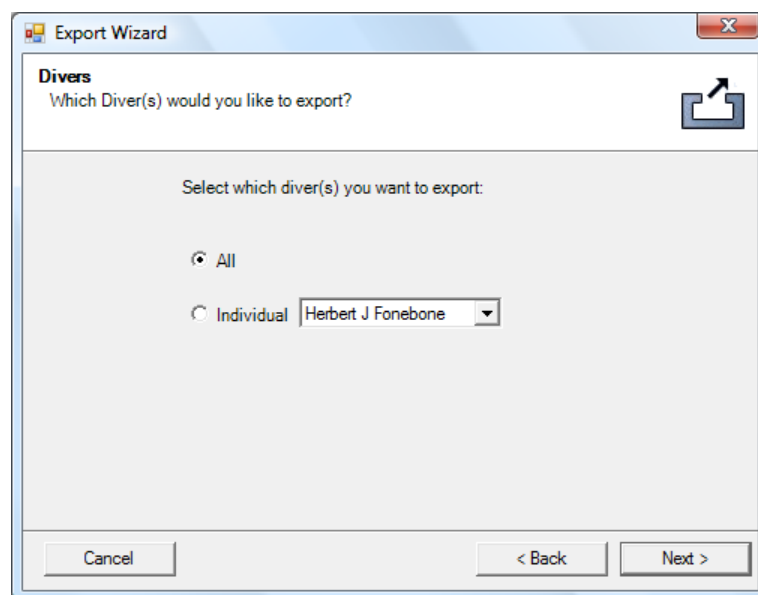
Dive Sites can be accessed from the main menu **Tools > Dive Sites**. The window can also be accessed from the Main tab in the Dive Log Entry windows. The dive sites in the dive site list are used to populate the dive site drop down list in the Dive Log Entry window(s). When dive sites are added, modified or deleted the dive site list is changed, as are the drop downs in the Dive Log Entry windows. Each dive site is associated with a location. As you change the location, the dive sites change in the list.

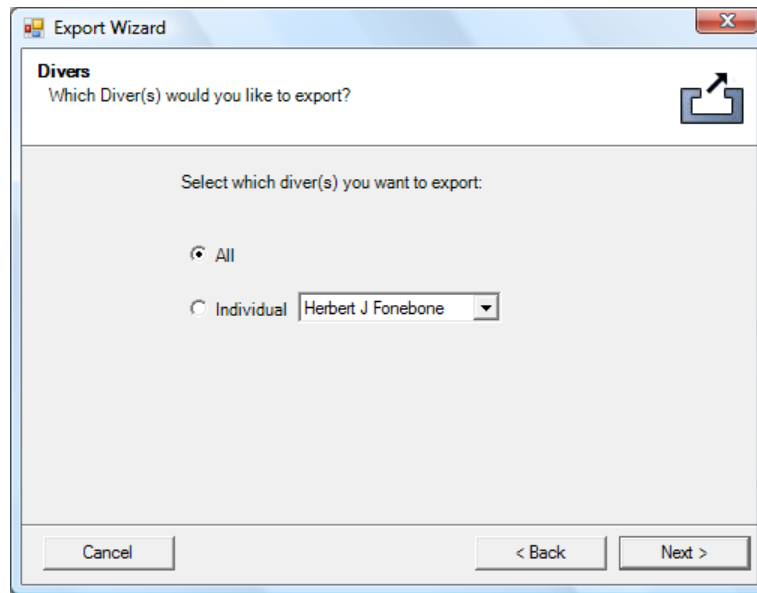


Export Wizard

As well as providing import functionality, Dive Assistant has export functionality through the Export Wizard. The wizard currently only exports to Blackwave's proprietary XML format. Future releases will support CSV and other formats.

The wizard guides you through the export process from specify the export type, to the divers to export, details to export and the location to export to.





Log

Dive Assistant populates a log file with error messages and other important events. The log file is error.log, and is located in the application's logs folder. The log file provides details on what's occurring in the application and can be an important aid in assisting Blackwave with solving you're the problems you are experiencing.

Template Builder

Template Builder is a new feature. It allows you to create your own print templates for printing dive logs. Template Builder is a standalone application, and is included with the Dive Assistant – Desktop Edition. The builder creates XML files which you can import into Dive Assistant Desktop Edition.

The template builder has its own user guide.

Index

- A**
- Aeris, 42
 - Air, 24
 - Autocalc PGs**, 16
- B**
- brand, 34
 - Buddies, 49
- C**
- Calculator, 31
 - Cancel Sync, 46
 - Citizen, 42
 - Clone, 19
 - Clone To Diver, 19
 - conditions, 23
 - Copyright**, i
 - current diver, 11
- D**
- Deco, 31
 - Deco Stops, 23
 - Delete Diver, 11, 33
 - Delete Qualification, 15
 - Delete Service, 35
 - description, 34
 - device, 40
 - Dive Computer Import, 27
 - Dive Kit, 34
 - dive kit., 23
 - Dive Log, 16
 - Dive Log Entry, 21
 - Dive No, 22
 - Dive Plan, 30
 - Dive Profile, 26
 - Dive Statistics, 9
 - Diver, 13
- E**
- EAD, 31
 - Equivalent Air Depth, 31
 - expiry date, 14
- F**
- First Time, 7
 - FO2, 30
- G**
- GPS connection, 39
 - GPS Point, 39
- I**
- GPS receiver, 39, 40
 - IANTD, 31
 - Import, 36
 - Import dive tables, 36
 - Installation, 4, 5
 - Insurance, 15
 - Introduction, 4
- K**
- kit type, 34
- L**
- Location, 22
 - Lock/Unlock, 25
 - Locked, 25
- M**
- Main Menu, 9
 - mapping, 46
 - Mares IRIS, 43
 - model, 34
 - multiple divers, 11
- N**
- New Diver, 11
 - New Qualification, 14
 - New Service, 34
 - Nitrox, 30, 31
 - Nitrox Wizard, 30
 - Notification, 9
- O**
- Oceanic, 43
 - Organisation, 14
- P**
- Personal Details, 13
 - PG, 23, 31
 - Plan, 30
 - position tab, 39
 - Print, 19
 - Profile, 26
 - profile entry, 26
 - protection, 23
- Q**
- qualification, 14
- R**
- ReefNet Sensus, 43
 - Reset Sync, 46
 - Result, 46
- S**
- satellites tab, 39
 - serial number, 34
 - Service History, 34, 35
 - settings, 21
 - Settings, 28
 - Sherwood Wisdom, 43
 - Show deco**, 16
 - Show gas**, 16
 - SI, 22
 - Starting the application, 6
 - Summary tab, 47
 - Surface interval, 22
 - Suunto Dive Manager 2.x, 43
 - Sync, 45
 - synchronization, 45, 46
 - Synchronization, 45
- T**
- temperature, 23
 - Template Builder, 52
 - Time Out, 22
- U**
- Units, 16
 - Universal Dive Computer Format, 44
 - Update Diver, 11, 33
 - Update Qualification, 15
 - Update Service, 35
 - User Requirements, 4
 - Uwatec SmartTrak, 44
- V**
- visibility, 23
- W**
- Weather, 23
 - weight, 23
 - Weight table, 24
- X**
- XML, 45