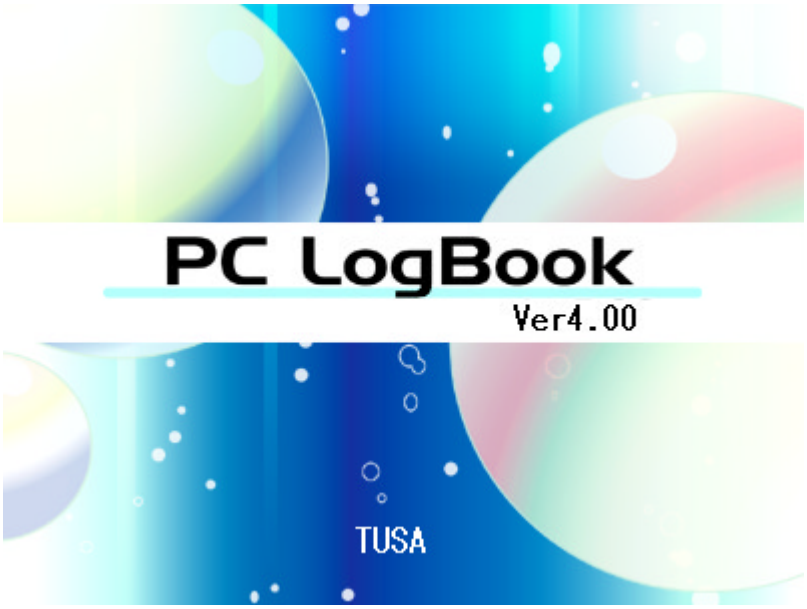
PC LogBook Software Manual



Introduction

Welcome to PC LogBook!

This software is an application for managing log data during a dive on a computer.

PC LogBook features the following functions.

*Function for downloading log data and profile data from dive computer

*Function for setting history to dive computer

*Function for printing log books

*Function for simulating a dive

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1. System Requirements

OS:
Microsoft Windows 98 Second Edition, Windows ME,
Windows 2000, or Windows XP
Microsoft, Windows, and Microsoft Excel are registered trademarks of Microsoft in the United States and other countries. (Other product names are also trademarks or registered trademarks.)

Computer:
Any IBM PC/AT-compatible computer (including PC-98NX Series computers) that operates using one of the above-listed operating systems

CPU	Pentium II 266 MHz or above
Disk capacity	At least 30 MB of available disk space
Memory	64 MB or above (recommended)
Video resolution	800 × 600 dots (or above)

Caution points

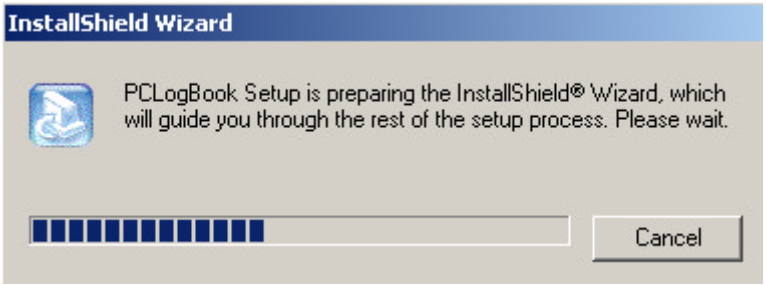
(1) Duplication of any or all of these help contents without prior authorization is strictly prohibited.
(2) These help contents are subject to revision without prior notification.
(3) Please do not hesitate to contact us regarding any errors or omissions that may have been included in this document despite our efforts to the contrary.
(4) Please note that, even though every effort has been made to ensure the accuracy of this document, we cannot be responsible for the effects of its use in all situations.

2. Installation Method

2.1 Installation Steps

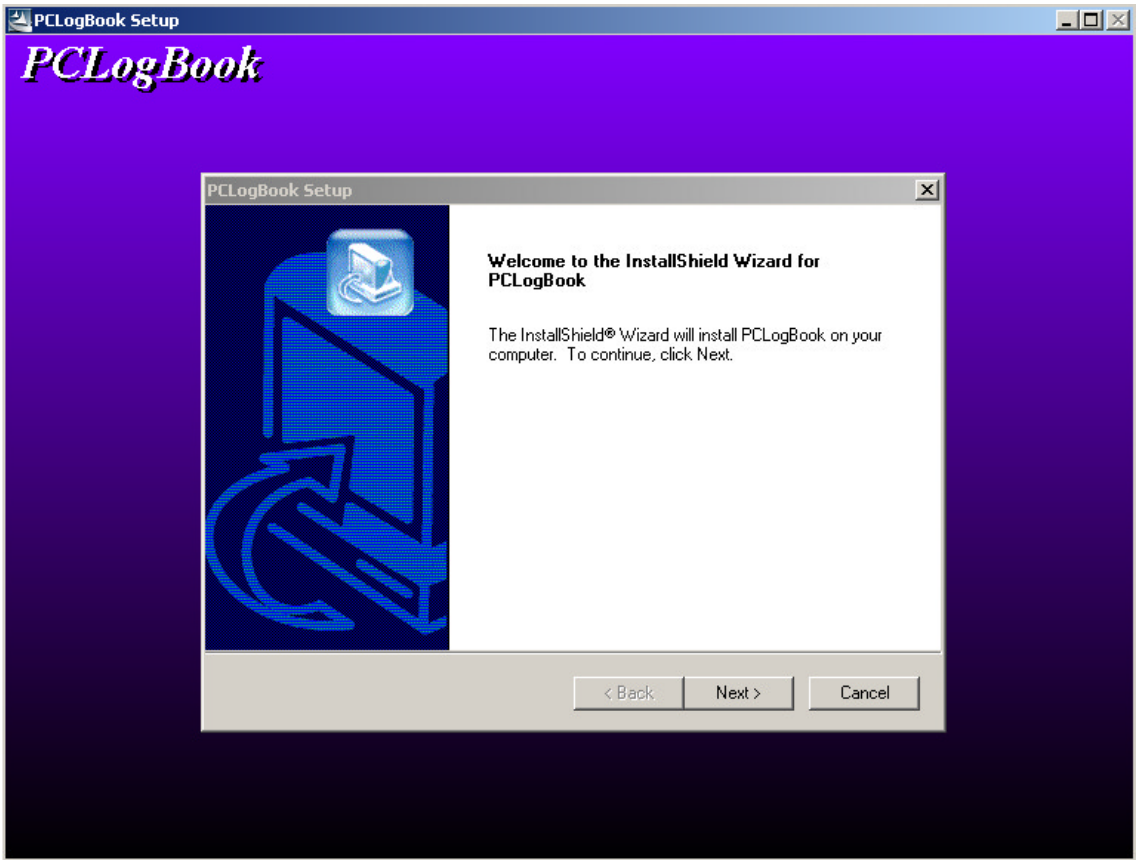
(1) Begin installation

Double-click "PCLogBook.exe" to bring up the splash screen shown below.



(2) Setup screen

The following Setup window will appear. Select Next.



(3) Enter user information

Enter a username, company name, and serial number.

(In case personal usage , enter same username to a company name column.)

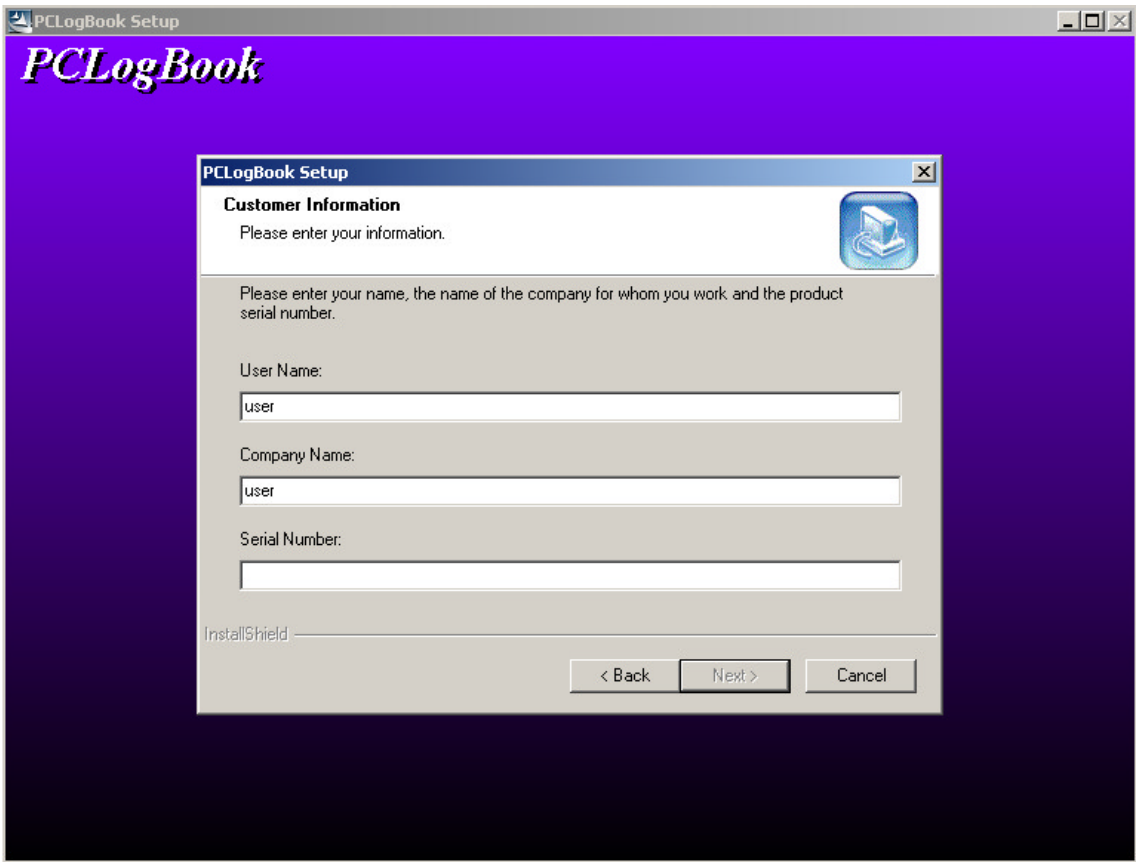
Enter the serial number as follows, then select Next.

In case Dive Computer is IQ-800

DT54A-3472-1882

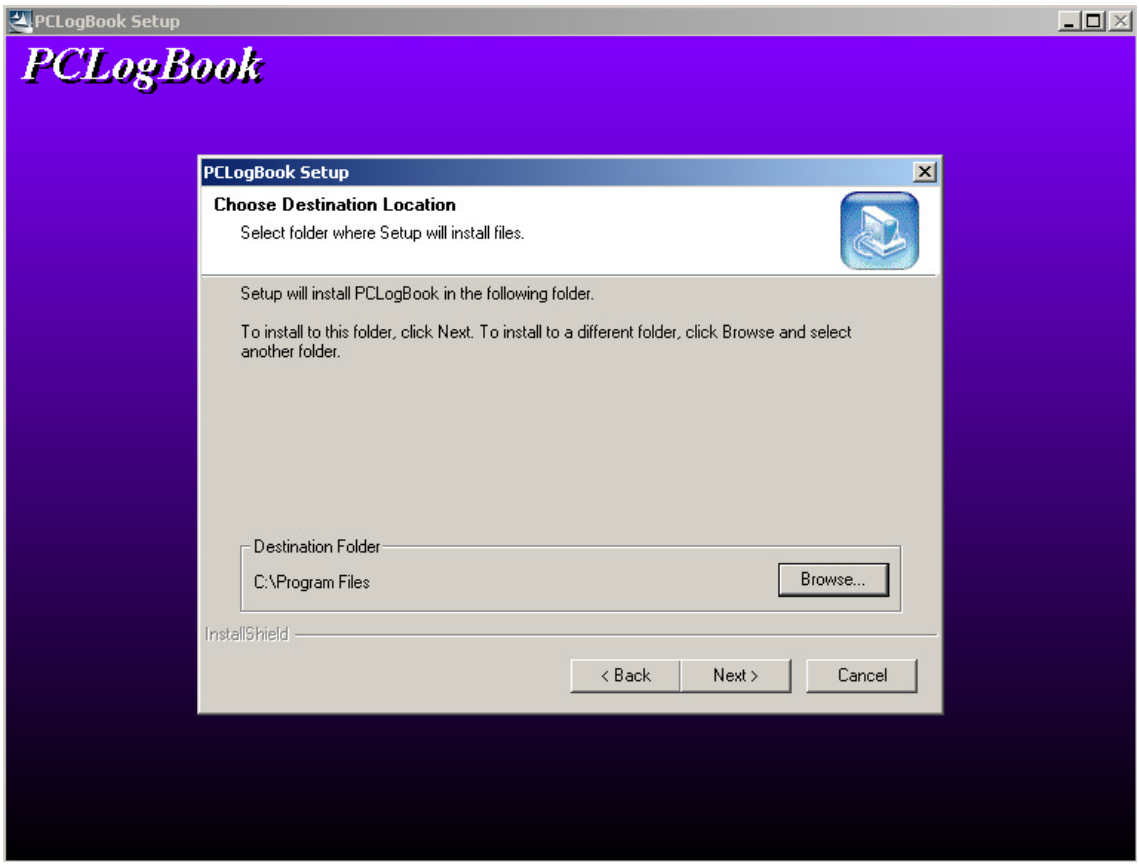
In case Dive Computer is IQ-700

DT53A-6353-2371



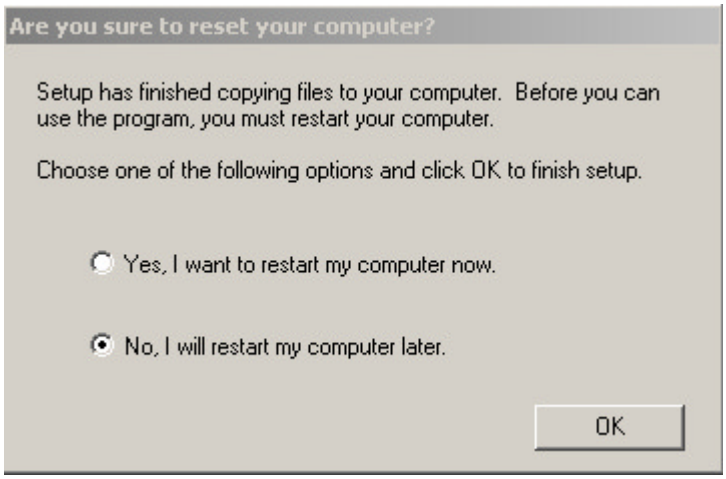
(4) Select installation directory

Select the folder where the software will be installed, then select Next. Then confirm the folder name and select Next again to start the installation process.



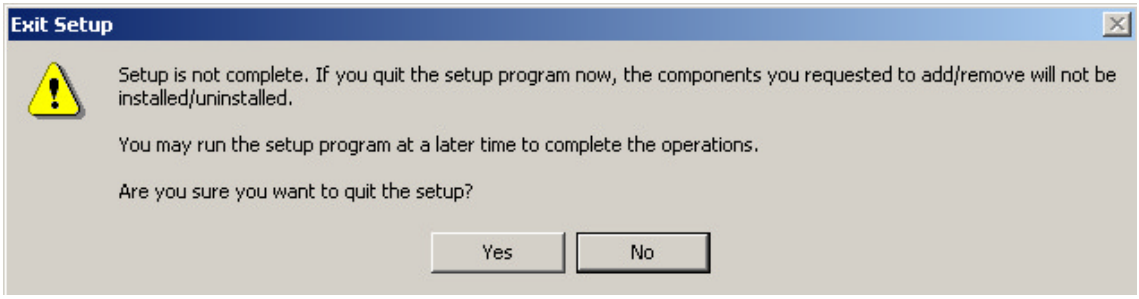
(5) Restart the system

After the installation process is completed, restart your system to finish installation.



2.2 Canceling Installation

(1) User interface



(2) Functions

This window appears if you click Cancel during the installation process

Click Yes to stop installation.

Click No to continue installation.

3. Basic Operations

3.1 Mouse Operations

These operations comply with the standard Windows interface.

Mouse operation	Function
Left click	Executes processing assigned to a button. Selects data shown at the cursor position in a list view. Controls scrolling of list display via scrollbar. Selects and executes items shown on the menu bar.
Left double click	Selects data shown at the cursor position in a list view.
Left drag & drop	Performs spin control via scroll bar. Copies list of data selected in a list view to an Excel sheet.
Shift + left click	Selects multiple lists of data shown in a list view. (Complies with standard Windows interface)
Ctrl + left click	

3.2 Keyboard Operations

These operations comply with the standard Windows interface.

Key	Function
Enter	Executes processing assigned to a button. Selects data shown at the cursor position in a list view.
Up/down (arrow keys)	Moves highlighted cursor position up or down in list view.
Shift + up/down	Selects multiple data shown in a list view. (Complies with the standard Windows interface)
Ctrl + up/down	
PageUp PageDown	Moves to the next or previous page in list view.
Tab	Moves to the input insertion point.
F1	Displays help screen.

4. Overview of Functions

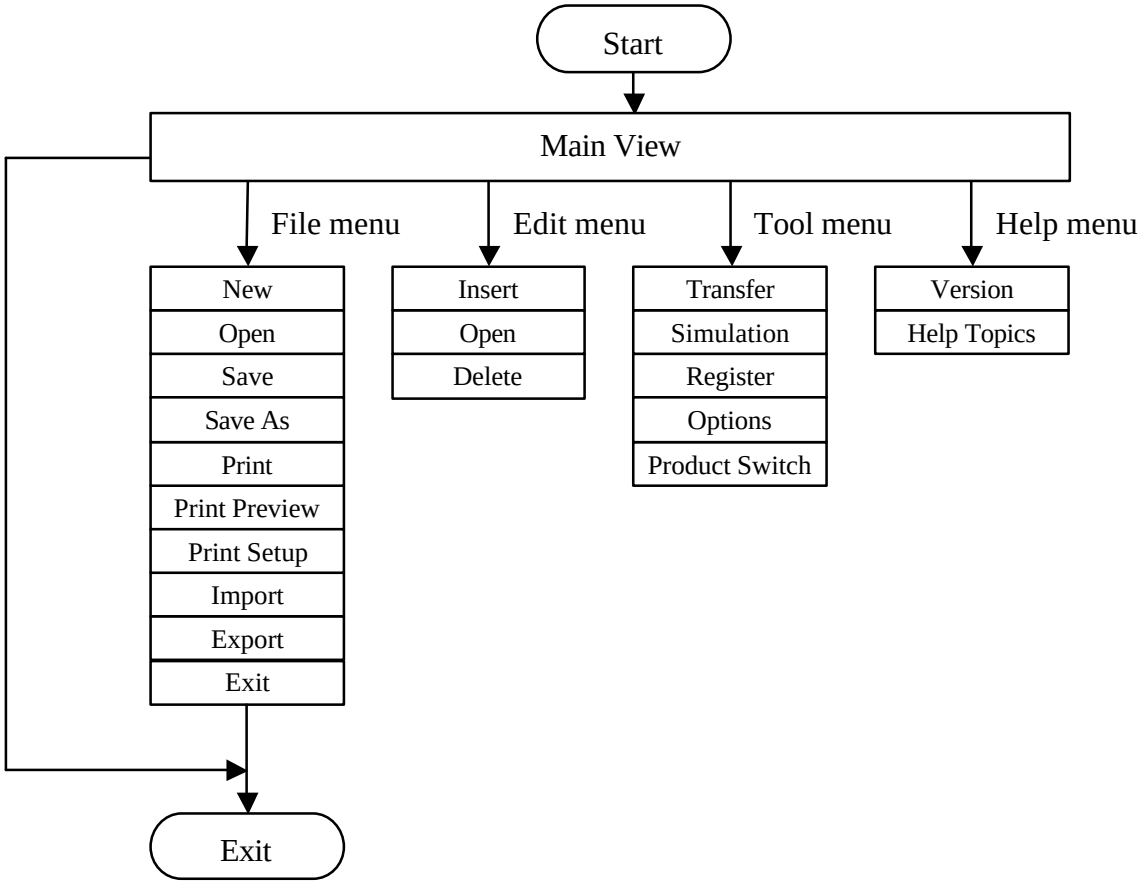
4.1 Overview of UI (User Interface)

All controls in the UI conform to the Windows standard interface.

When a dialog box is opened from a list, it must be closed before other list data can be displayed.

4.2 Configuration

The configuration of application is outlined below.



4.3 OLE Support

Transfer of OLE data to Excel is supported by PC LogBook.

The following versions of Excel are supported.

Excel 97

Excel 2000

Excel XP

5. Function Specifications

5.1 Start

5.1.1 UI specification

Splash screen

5.1.2 Description of function

If this utility has already been started, same utility will not be able to start but will select the already started utility.

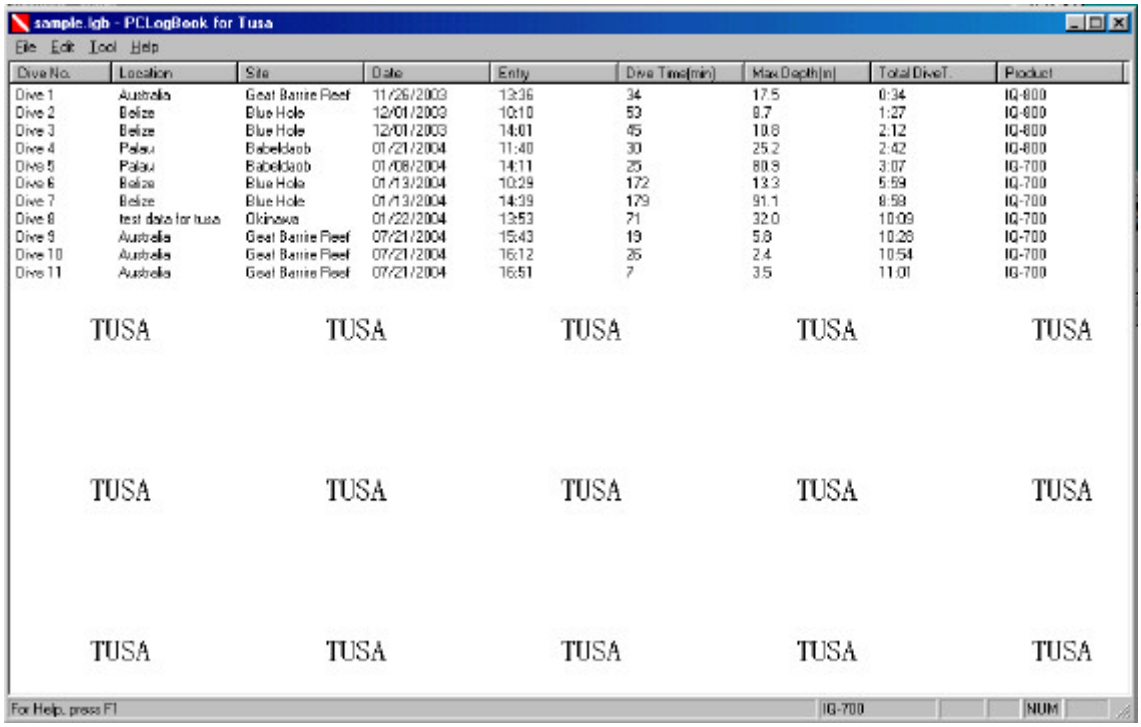
5.2 Main View

5.2.1 UI specification

The name of the current file is shown in the screen's top frame.

The first time this screen is opened after installation, sample data is shown.

Example) sample.lgb – PC LogBook



5.2.2 Title bar

The following example is based on the Windows standard specification. The application's icons and names are listed on the left column. Left-click an icon to open the corresponding window control menu. This menu provides the following window control functions.

Control element	Function
Restore original size	Restores maximized window to its original size.
Move	Moves window.
Resize	Changes window size.
Minimize	Minimizes window.
Maximize	Maximizes window.
Close	Terminates application.

In addition, the functions can also be controlled directly by using the buttons in the window. (The functions assigned to buttons conform to the Windows standard specification.)

5.2.3. Menu bar

The menu bar conforms to the Windows standard specification.

The menu bar is used to execute various PC LogBook functions.

Below, "LGB files" are a type of file created by PC LogBook. Each LGB file can contain one or several dive data items. Dive data consists of specific diving information.

Menu	Sub menu	Shortcut key	Function
File	New...		Creates a new LGB file
	Open ...	Ctrl+O	Opens a saved LGB file
	Save…	Ctrl+S	Saves an LGB file
	Save As...		Saves an LGB file under another name
	Print...	Ctrl+P	Prints the selected data
	Print Preview		Displays print-related information
	Printer setup		Sets printer to be used for output
	Import	Ctrl+I	Additional import of previous LGB files
	Export…	Ctrl+E	Outputs to a CSV file
	Exit Application		Exits application
Edit	Insert		Inserts dive data
	Open		Displays dive data
	Delete		Deletes dive data
Tools	Transfer		Downloads dive data
	Register		Registers diving information
	Simulation ------New ------Open ------ Delete ------ Delete All ------ Close		Performs dive simulation Performs a new dive simulation Opens saved data Deletes saved data Deletes all saved data Closes simulation
	Options		Sets environment settings
	Product Switch		Switches between products to import and communicate
Help	Search Help Topics		Displays help topics
	About PCLogBook…		Displays version information

The menu bar has a tree structure. Click on the top menu item to view the corresponding sub menu items on a pull-down menu.

5.2.4 Pop-up menu bar

This conforms to the Windows standard specification.

From the Main View window, click the mouse's right button to view the pop-up menu bar. Various PC LogBook functions can be executed via the pop-up menu bar.

Insert	Inserts dive data
Open	Displays dive data
Delete	Deletes dive data
Export	Exports dive data to a CSV file
Print	Prints dive data

5.2.5 Status bar

This conforms to the Windows standard specification.

When an item has been selected on the menu bar, the status bar displays information about the corresponding menu bar function.

Displays the product type in use now.

5.2.6 List view

In the list view, the dive data in the reverse cursor display can be selected. Several data items can be selected by using the standard Windows UI functions ([Ctrl] and [Shift] keys together). Also, the [Ctrl + A] key combination can be used to select all items. Selected dive data can also be transferred to Excel via a drag-and-drop operation.

5.2.7 Main view

This view shows the various dive information items that are displayed when a log data file has been opened.

Data items:

Dive No.

This indicates the dive number.

Memo:

The start number for the dive number can be changed via an option setting.

Up to 9,999 dives can be numbered.

Caution point: If the dive number exceeds 9,999 during a download, the downloaded data will not be saved.

Location

This indicates the location of the dive.

Site

This indicates the specific site of the dive.

Date

This indicates the date of the dive.

Dive start

This indicates the starting time of the dive.

Dive time

This indicates the total time of the current dive.

Maximum depth

This indicates the maximum depth during a dive.

Total dive time

This indicates a running total of current and previous dive times.

Memo:

The start time for the total dive time can be changed via an option setting.

Product type

Displays the product type whose are used to get dive data.

5.2.8 Linkage to Excel

Dive data can be transferred to Excel from the list in the Main View window using a drag-and-drop operation.

The data is transferred via the Clipboard.

Up to 256 data items can be transferred to Excel.

About FO2 1 and FO2 2, IQ-800 model, which uses only one tank, displays blanks in the fraction of oxygen fields. IQ-700 model, which can use two tanks, displays the numerical value when FO2 of the second tank is set. When any numerical value are not set, displays bars ("–").

Example)

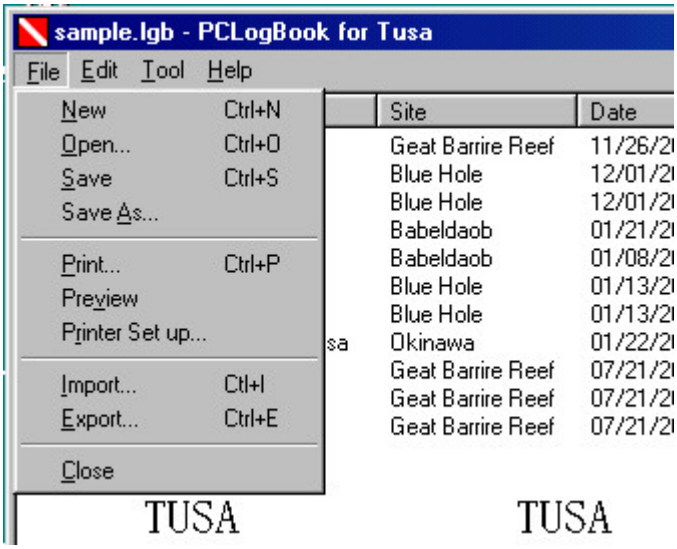
Product type	IQ-800	IQ-700	IQ-700
Dive No.	7	8	9
Dive date	2003/4/8	2003/4/8	2003/4/9
Altitude rank	0	0	0
PGT (Residual nitrogen level)	4	5	9
OLI (Residual oxygen level)	0	0	3
Max. Depth (m)	17.4	18.5	25.1
Ave. Depth (m)	11.6	12.7	23.4
Temperature (°C)	17.9	17.8	17.3
Dive time (minutes)	33	35	147

Entry	11: 32	14: 18	9: 58
Exit	12:05	14: 53	12: 25
Surface Interval	0:00	2: 12	19:04
Safety factor	0	0	0
Sampling	30	30	30
FO2 1 (%)	21	21	21
FO2 2 (%)		-	50
Ascent Rate	4	7	5
Sea/Fresh	Sea	Sea	Sea
DECO Dive			Warning
DECO Stop Violation			Warning
PO2 (Pressure of Oxygen) Warning			
OLI (Oxygen Limited Indicator) warning			
Over Range Warning			Warning
Ascent Rate Warning			
Profile 1	6.2	6.8	7.3
Profile 2	7.3	9.1	9.2
Profile 3	8.1	11.3	10.8
Profile 4	10.6	13.2	14.4
Profile 5	12.9	14	17.2
Profile 6	14.7	14.4	18.6
Profile 7	14.7	15.2	19.7
Profile 8	15.1	16	20.9
Profile 9	15.1	16.3	22
Profile 10	15.1	16.3	22.7

To be continued…….

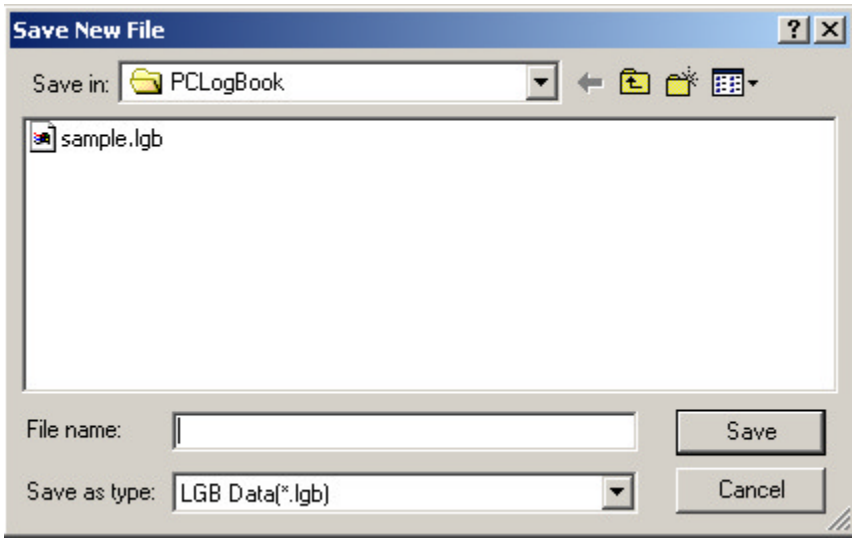
5.3 Files

Using the File menu, you can create new log data files, edit and save previously saved log data, and print or export dive data. All of these operations can be performed via the mouse or the keyboard (using the shortcut keys shown in the right side of pull-down menus).



5.3.1 File-New

(1) UI specification



(2) Description of function

Selecting "File-New" brings up the Open dialog box that is used to create and save a new file. The only supported file type is LGB data files (*.lgb). A warning appears if there is unsaved data.

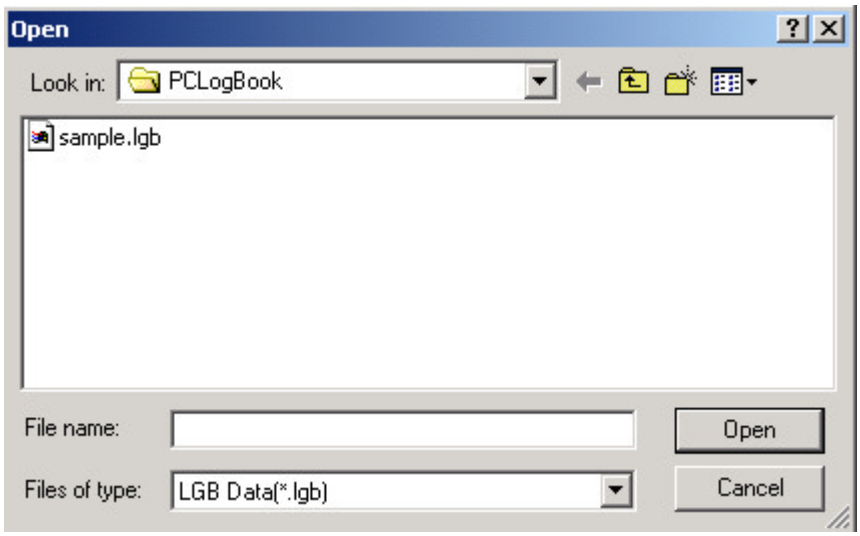
Clicking the Cancel button closes the Open dialog box and returns to the Main View window without saving any files.

To create a new file, specify a file name and select Save button. If a file with the same name already exists, an overwrite warning message appears. Click the OK button the overwrite the existing file, or click the Cancel button to specify a different file name. If the specified file name does not have an extension, the extension ".lgb" is applied automatically to the saved file name. If a file name extension is specified, this user-specified extension is used and the .lgb is not applied automatically.

If an error occurs while saving a file, a file save failure message appears and the file name specification dialog box appears again.

5.3.2 File-Open

(1) UI specification



(2) Description of function

Selecting "File-Open" brings up the Open dialog box that is used to load the specified file.

Only files of the LGB data file (*.lgb) type can be selected.

If the specified file is of the LGB data file (*.lgb) type, the .lgb file name extension is automatically added to the specified file name when the file is opened.

Clicking the Cancel button closes the Open dialog box and returns to the Main View window without opening any files.

To load a file, specify the file name and click the Open button. It is not possible to specify several files at once. Once a file has been specified, the system checks whether or not it is an LGB data file and outputs an error message if it is not an LGB data file (the file specification dialog box appears again). Also, a warning message appears and the screen returns to the file name specification dialog box if the specified file is invalid or otherwise cannot be loaded.

5.3.3 File-Save

(1) UI specification

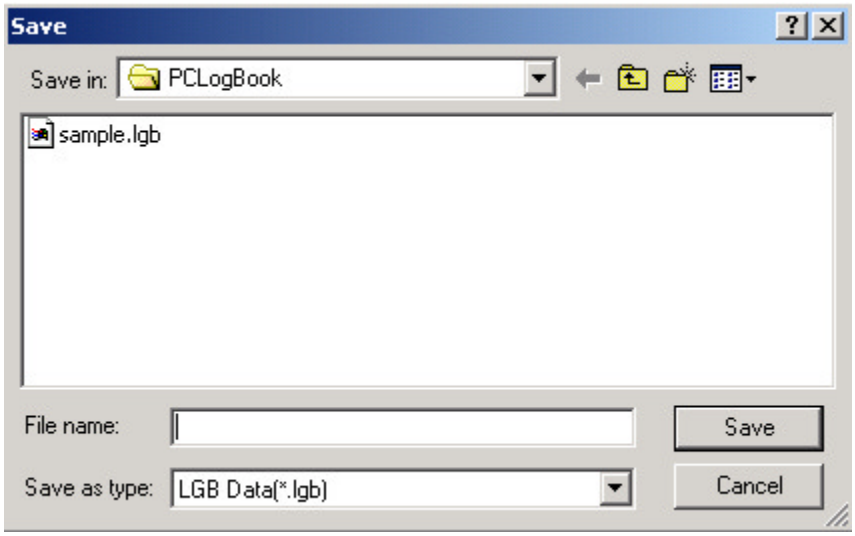
(None)

(2) Description of function

When File-Save is selected, the currently selected LGB file is saved (any previous version is overwritten).

5.3.4 File-Save As

(1) UI specification



(2)Description of function

Selecting "File-Save As" brings up the Open dialog box that is used to save a file under a new file name.

Only files of the LGB data file (*.lgb) type can be selected.

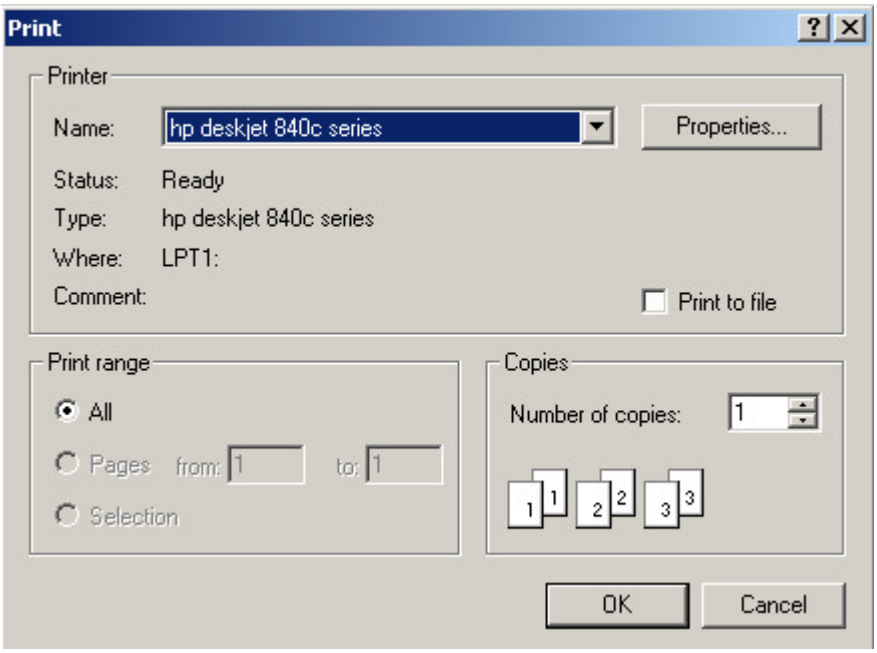
Clicking the Cancel button closes the Open dialog box and returns to the Main View window without saving any files.

To create a new file, specify a file name and select the Save button. If a file with the same name already exists, an overwrite warning message appears. Click the OK button the overwrite the existing file, or click the Cancel button to specify a different file name. If the specified file name does not have an extension, the extension ".lgb" is applied automatically to the saved file name. If a file name extension is specified, this user-specified extension is used and the .lgb is not applied automatically.

If an error occurs while saving a file, a failure message appears and the file name specification dialog box appears again.

5.3.5 File-Print

(1) UI specification



(2) Description of function

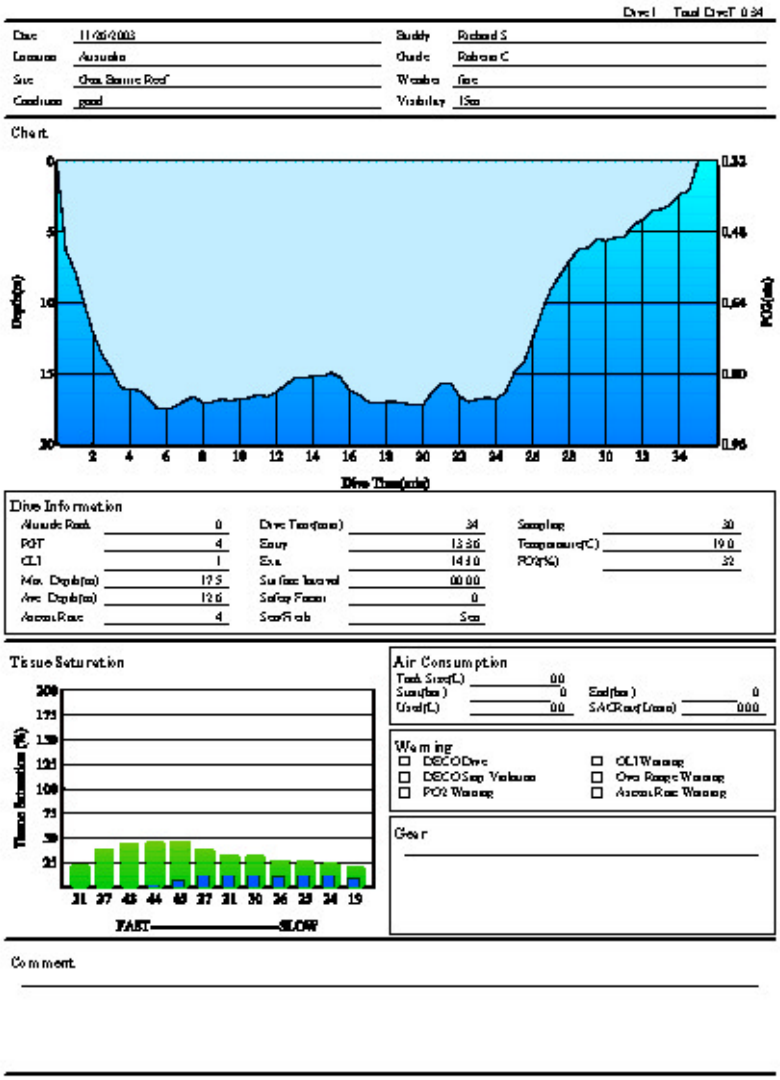
Selecting "File-Print" brings up the Print dialog box that is used to print dive data.

The selected dive data is printed using a predetermined layout. A summary of the dive data is printed on one sheet of paper, as shown below. If several sets of data files are selected, an additional page is printed for each set of selected dive data.

Print paper sizes from A4 to postcard size are supported. Letter size (for English-speaking countries) is also supported. However, border-free printing is not supported.

<Print illustration>

IQ-800

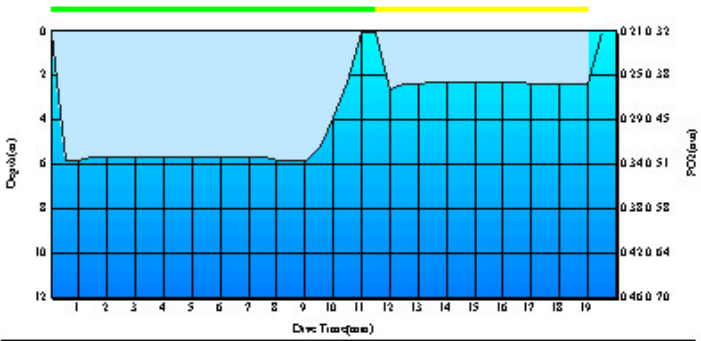


IQ-700

Dive9 Total DiveT 10:28

Date	07/21/2004	Buddy	
Location	Australia	Guide	
Site	Great Barrier Reef	Weather	
Condition		Visibility	

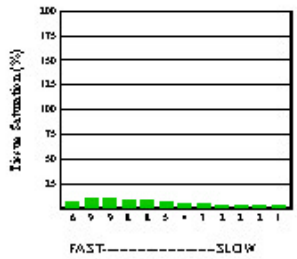
Chart



Dive Information

Altitude Rank	0	Dive Time(min)	19	Sampling	30
POT	1	Entry	15:43	Temperature(C)	22.6
OL1	0	Exit	16:02	FO2(%)	21
Max. Depth(m)	5.8	Surface Interval	00:00	FO2(%)	32
Ave. Depth(m)	3.6	Safety Factor	0		
Ascent Rate	7	Sea/Fresh	Sea		

Tissue Saturation



Air Consumption (Tank1/Tank2)

Tank Size(cuft)	0.0 / 0.0	Working P(bar)	0 / 0
Start(bar)	0 / 0	End(bar)	0 / 0
Used (cuft)	0.0 / 0.0	SACRate (cuft/min)	0.00 / 0.00

Warning

- ☐ DECO Dive
- ☐ DECO Stop Violation
- ☐ PO2 Warning
- ☐ OL1 Warning
- ☐ Over Range Warning
- ☐ Ascent Rate Warning

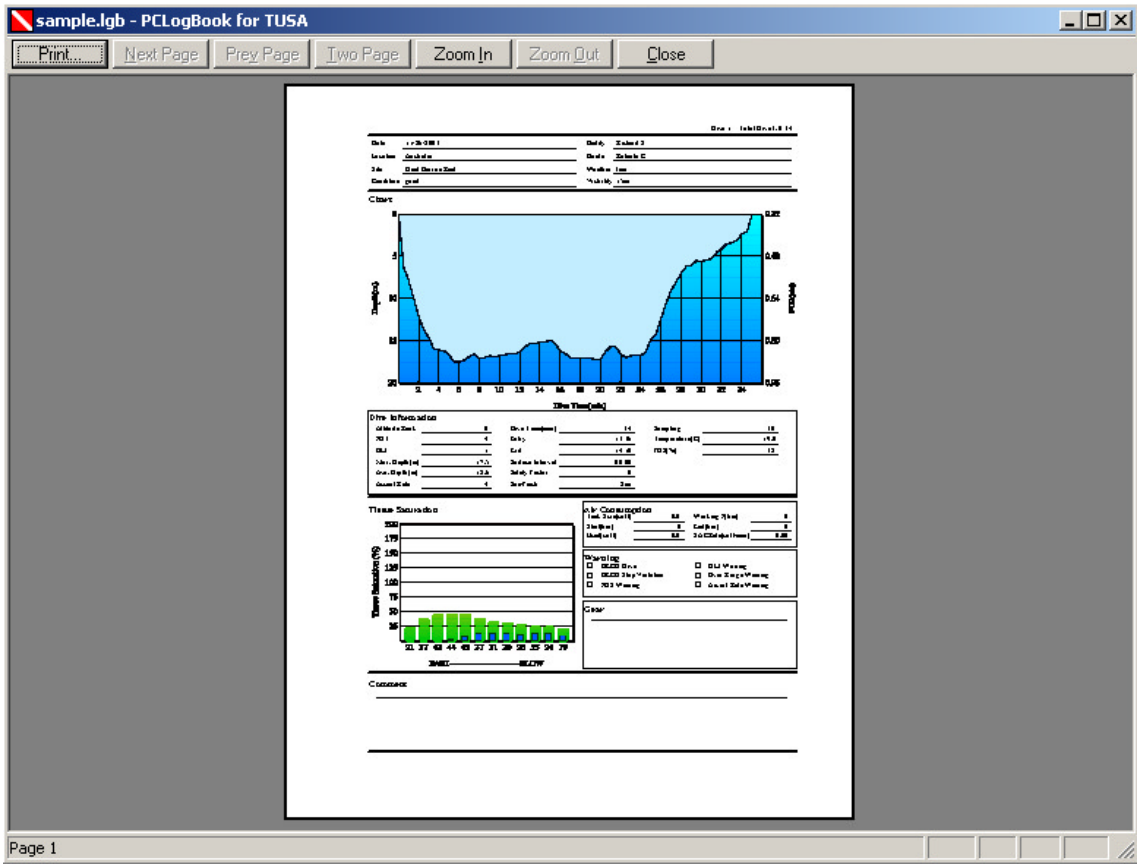
Gear

Comment

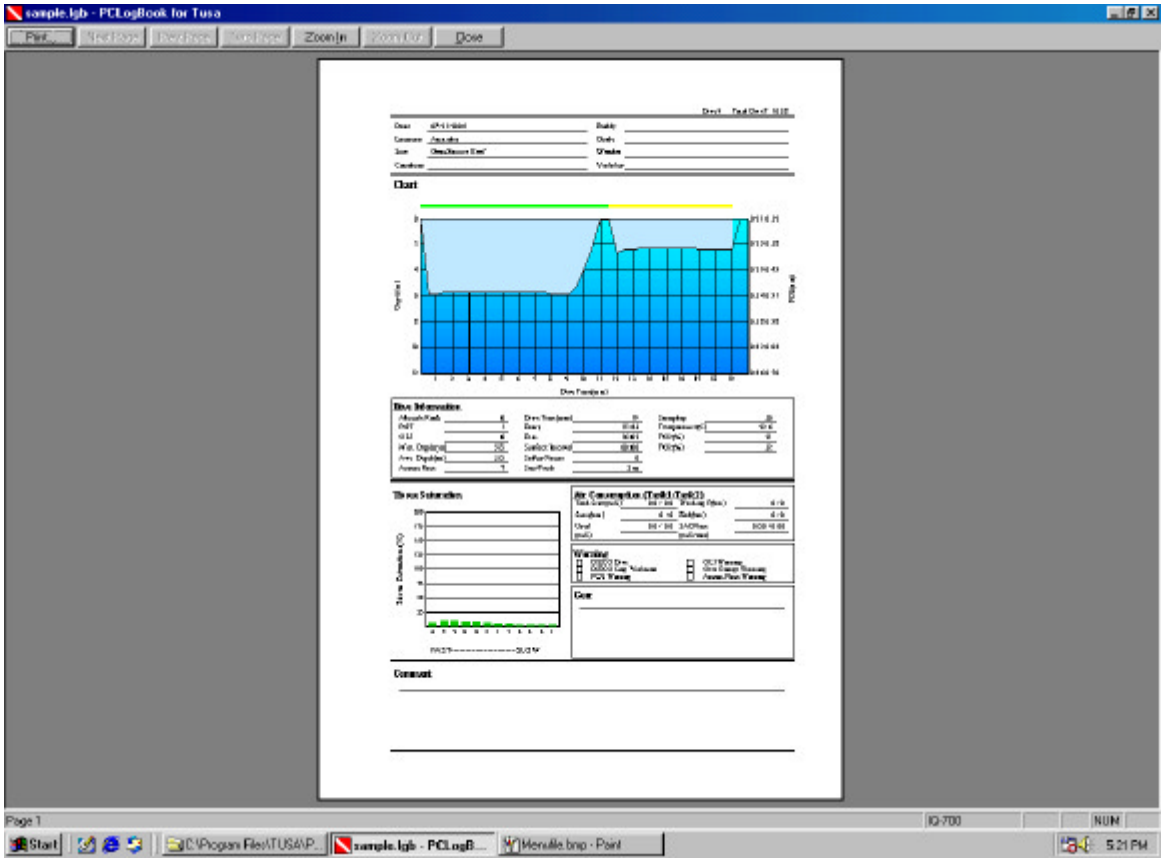
5.3.6 File-Print Preview

(1) UI specification

IQ-800



IQ-700

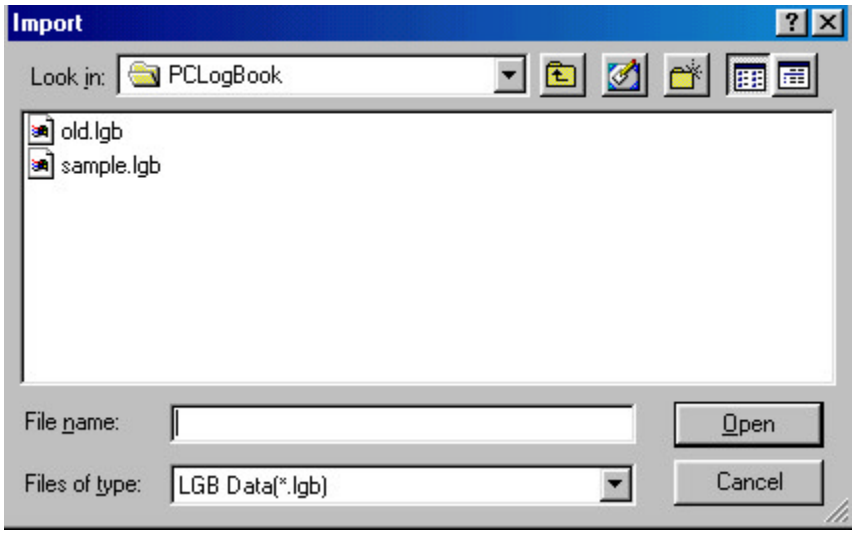


(2) Description of function

Selecting "File-Print Preview" brings up a window that shows a preview of the selected dive data in the standard print layout. Each set of dive data is printed in summary form on one sheet of paper, as shown in the UI specification. If several sets of data files are selected, an additional page is printed for each set of selected dive data.

5.3.7 File-Import

(1) UI specification



(2) Description of function

When the “File-Import” is selected, opens the “Opens a file” dialog box and reads the specified file. Then the data is converted and add.

LGB data files (*lgb) and all data can be selected.

When an LGB data file (.lgb) is selected, the file opens with a name that supplements its file extension even though the file extension is not selected to the entered file.

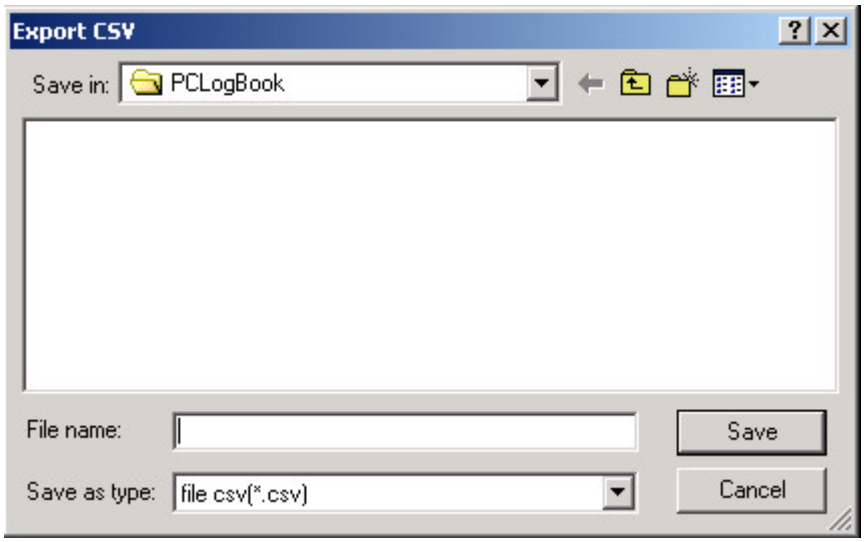
When the “Cancel” is selected, then back to the main view without opening any files.

When a file is selected and “Open” is selected, reads the selected file. At this transaction, plural selection of files is not allowed. Confirms whether or not the file can be opened when reads files, even if a wrong file had been detected, displays a warning of unable to read and return to the file selection.

If the selected file is a previous version of LGB data file, the message is displayed to ask whether or not you wish to import. When “Yes” is selected, converts the previous version of data then adds on the list of the main view. When “No” is selected, returns to the main view without opening any files.

5.3.8 File-Export

(1) UI specification



(2) Description of function

Selecting "File-Export" brings up the "Save exported log data" dialog box that is used to convert and save the selected dive data to a CSV-format file. If several dive data items are selected, each data is converted and saved to a separate CSV file, so that the resulting number of CSV files equals the number of selected dive data items.

Files are always saved as CSV files (*.csv).

Clicking the Cancel button closes the Open dialog box and returns to the Main View window without saving any files.

To create a new file, specify a file name and select the Save button. If a file with the same name already exists, an overwrite warning message appears. Click the OK button the overwrite the existing file, or click the Cancel button to specify a different file name. If the specified file name does not have an extension, the extension ".csv" is applied automatically to the saved file name. If a file name extension is specified, this user-specified extension is used and the .csv extension is not applied automatically.

If an error occurs while saving a file, a failure message appears and the file name specification dialog box appears again.

5.3.9 File-Exit application

(1) UI specification

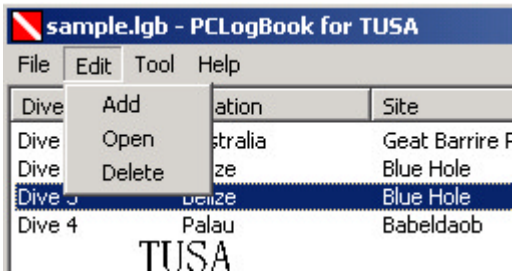
(None)

(2) Description of function

This closes the current application.

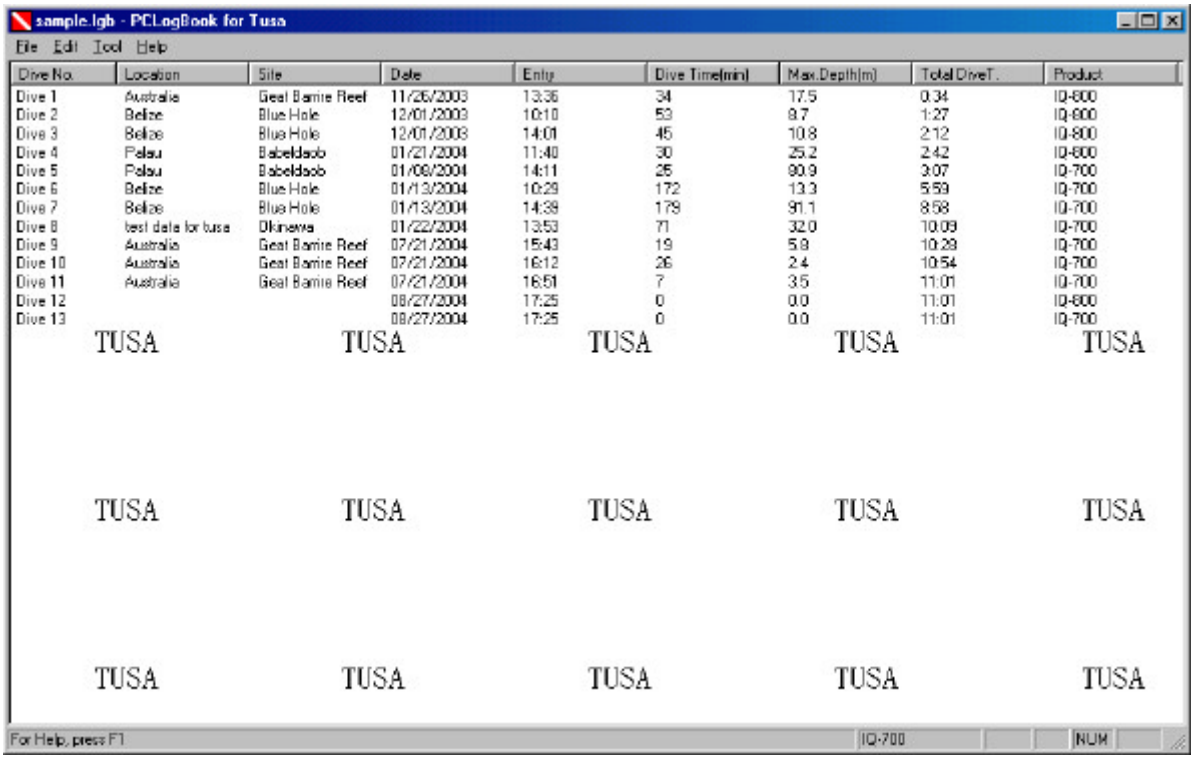
5.4 Editing Functions

These functions add (insert), edit (open), or delete dive data.



5.4.1 Edit-Insert

(1) UI specification



(2) Description of function

Selecting Edit-Insert ("Insert" in the pop-up menu) inserts a new dive data item to the end of the list shown in the Main View window. The product type for the dive data that is inserted can be shown in the status bar.

<Supplemental note>

Algorithm-based calculations can be performed only on downloaded log data.

Up to 9999 data items can be inserted (data cannot inserted once 9999 items have been reached). If this limit of 9999 data items is reached during a data transfer, the data being transferred will not be saved.

Dive data

Initialized dive data is inserted as the following dive data immediately after the currently selected dive data. If several dive data items have been selected, the selected items are inserted in descending order, starting from the item with the highest log number. The number of the dive data that comes after this inserted dive data is incremented by 1.

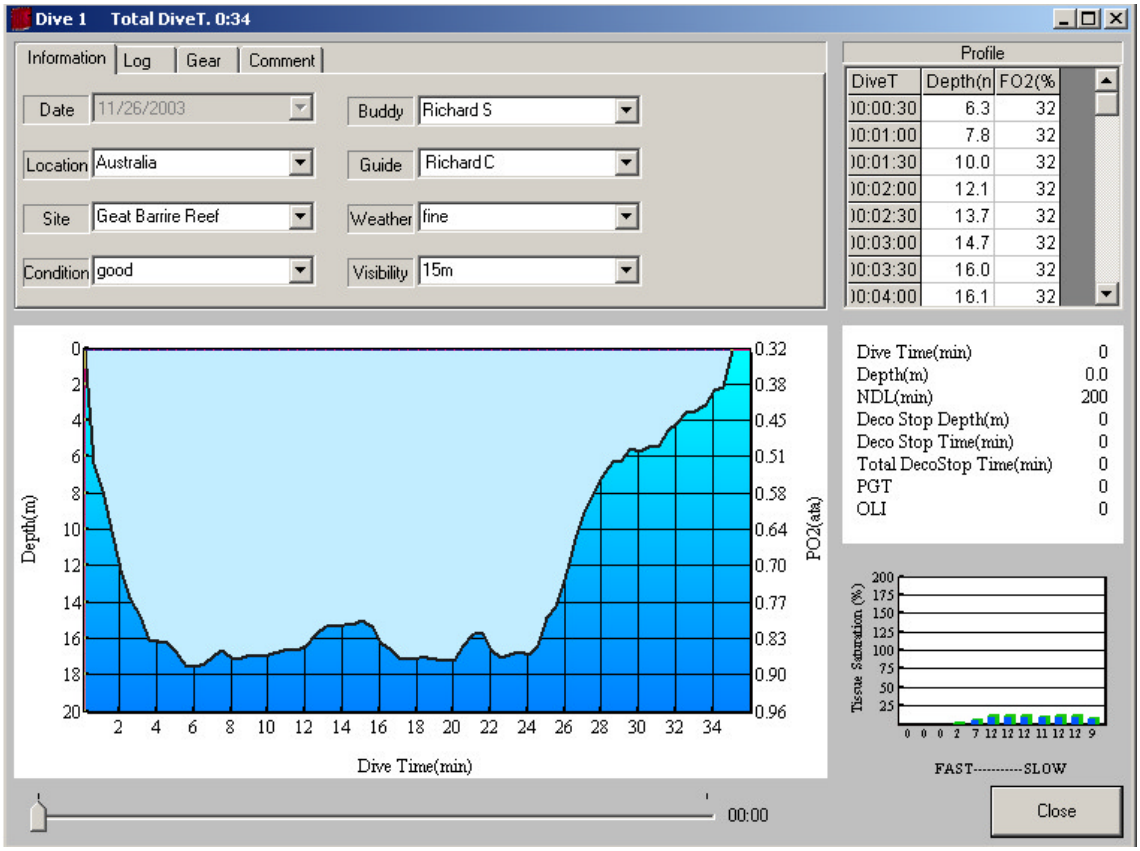
Data item	New dive data
Log No.	(Highest No. in LGB file) + 1
Date	Current date
Dive No.	0
Altitude rank	0
Residual nitrogen level	0
Residual oxygen level	0
Maximum depth (m)	0
Average depth (m)	0
Water temperature (°C)	0
Dive time (minutes)	0
Entry time	Current time
Exit time	Current time
Fraction of oxygen (%)	21
Ascent Rate	0
Elapsed surface time	0:00
Safety factor	0
Sampling (seconds)	30
Residual oxygen level warning	
Pressure of Oxygen (PO2) warning	
Decompression warning	

Decompression stop violation warning	
Over range warning	
Ascent rate warning	
Dive time (minutes)	0
Sea /Fresh	Sea
Tank size	0
Operating pressure	0
Start pressure and end pressure	0

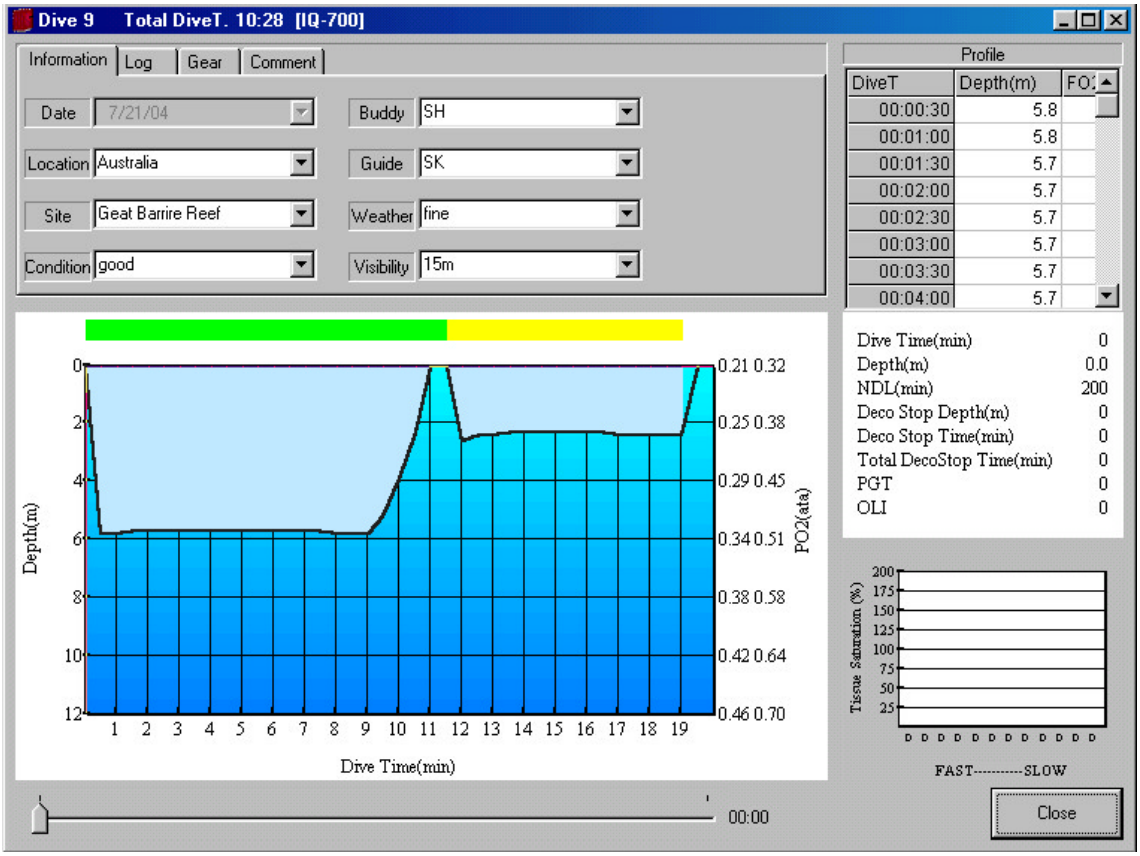
5.4.2 Edit-Open

(1) UI specification

IQ-800

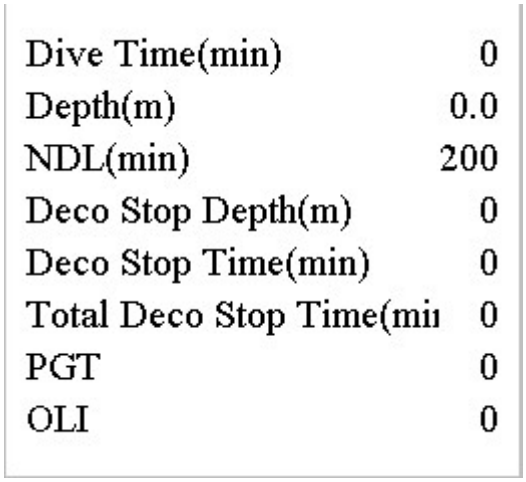


IQ-700



The combo box does not include the dates of downloaded data. The dates of inserted data can be set.

* The current display shows an example of data that has been downloaded from a dive computer.



DC display information

- From top of screen: Up to 600 minutes of dive time

: Current depth 0 to 199.9m

: NDL (Non Decompression Limit) to 200 minutes

: Decompression stop depth, 3 to 30 m

: Decompression stop time, 1 to 99 minutes

: Total decompression stop time, up to 999 minutes

: PGT (Residual nitrogen level), levels 0 to 9

: OLI (Residual oxygen level), levels 0 to 8

(2) Description of function

Once dive data has been selected from the Main View window, this function displays detailed dive information.

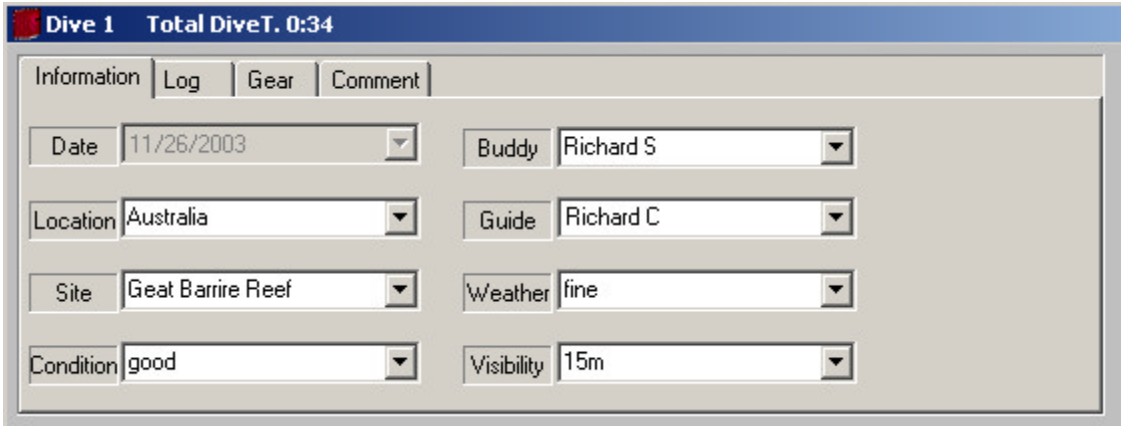
Only one selected dive data item can be displayed at a time. Also, closing this dialog box returns to the Main View window.

The Dive No. is shown as the dialog box's title.

The Dive Data dialog box includes four properties sheets. From left to right, these property sheets are: Dive Information (Information), Log data (Log), Gear information (Gear), and Comments.

Dive information (log)

(1) UI specification



*The current display shows the inserted data. The dates of downloaded data are not shown in a combo box and cannot be edited.

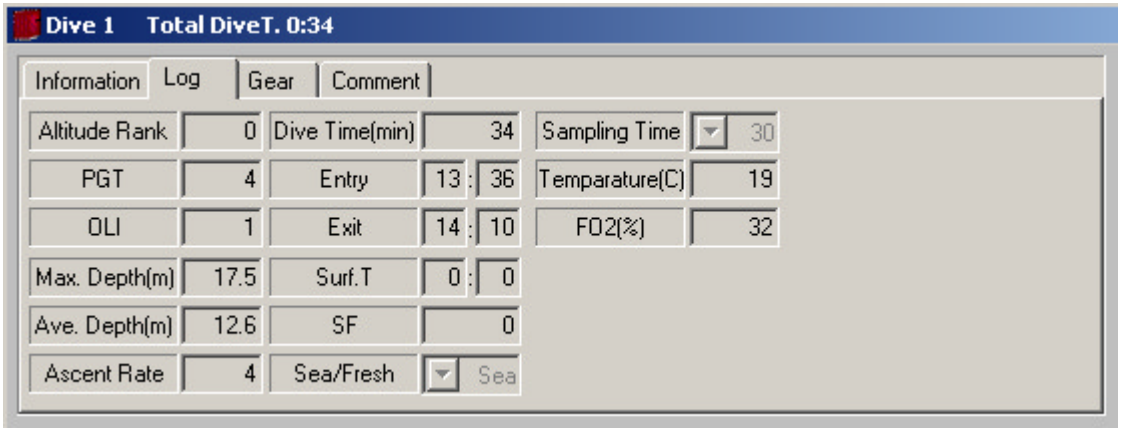
(2) Description of function

The dive information sheet is selected when dive data is opened. This sheet shows the date based on VC standard time control. Data can be typed directly into the Location, Site, Buddy, Condition, Weather, and Visibility combo boxes. Once data has been saved, it can be selected as previous data by clicking the drop-down button.

Maximum text string for input: 100 characters

Log

(1) UI specification



The data in the Sampling combo box cannot be changed. The current display shows an example of data that has been downloaded from a dive computer.

(2) Description of function

Data that is input and displayed includes the following.

Title	Description	Min. value	Max. value	Input condition	Function
Altitude Rank	Altitude rank	0	3	Integers	Altitude rank of dive
PGT	Nitrogen bar graph	0	9	Integers	Indicates the level of residual nitrogen in the body at the end of the dive
OLI	Oxygen bar graph	0	8	Integers	Indicates the level of residual oxygen in the body at the end of the dive
Max. Depth	Maximum depth	0	199.9 m 656 ft	m: Real number *1 ft: Integer	This is not linked with the maximum depth profile data during the dive.
Ave. Depth	Average depth	0	199.9 m 656 ft	m: Real number *1 ft: Integer	This is not linked with the average depth profile data during the dive.
Temperature	Water temperature	-5°C 23 F	45°C 113 F	°C: Real number *1 F: Integer	Lowest water temperature during dive
Dive Time	Dive time (minutes)	0	599	Integers	Dive time
Entry	Dive start time	0:00	23: 59	Integers	Time when dive started (entry into water)

Exit	Dive stop time	0:00	23: 59	Integers	Time when dive ended (exit from water). Exit = Entry + Dive Time (calculated automatically)
FO2	Fraction of oxygen 1,2 *2	21 (air)	99	Integers	Percentage of oxygen in the gas mixture used for diving
Surf.T	Elapsed surface time	0:00	47: 59	Integers	Time from previous exit until current entry. Surf.T = Entry - (previous) Exit
SF	Safety Factor	0	2	Integers	Diving safety factor
Fresh/Sea	Fresh water/ Sea water	Fresh water or Sea water			Fresh water/Sea water setting for dive
Ascent Rate	Ascent rate	0	10	Integers	Levels of ascent rate bargraph
Sampling Time	Sampling time (seconds)	5	60	5, 10, 15, 30, 60	Depth profile's sampling time. The profile data is set according to this time.

*1 Water depth for downloaded data is shown as a value from 0 to 199.9 meters, but entered depth values are shown as real numbers. (No decimal point restrictions)
Water temperature for downloaded data is shown as a value from -5.0 to 45.0°C, but entered depth values are shown as real numbers. (No decimal point restrictions)

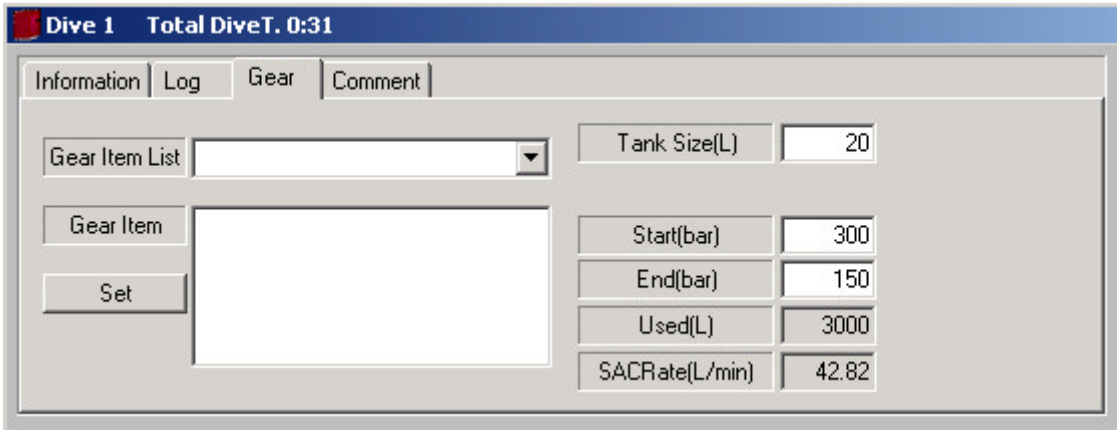
*2 Displays available input area and display area . The specification of the main unit is in the setting range of Mix 1 : 21 ~ 50%, Mix 2 : 21 ~ 99%. Only one range is displayed for the IQ-800. When it is in the gage mode, they are not displayed.

Gear

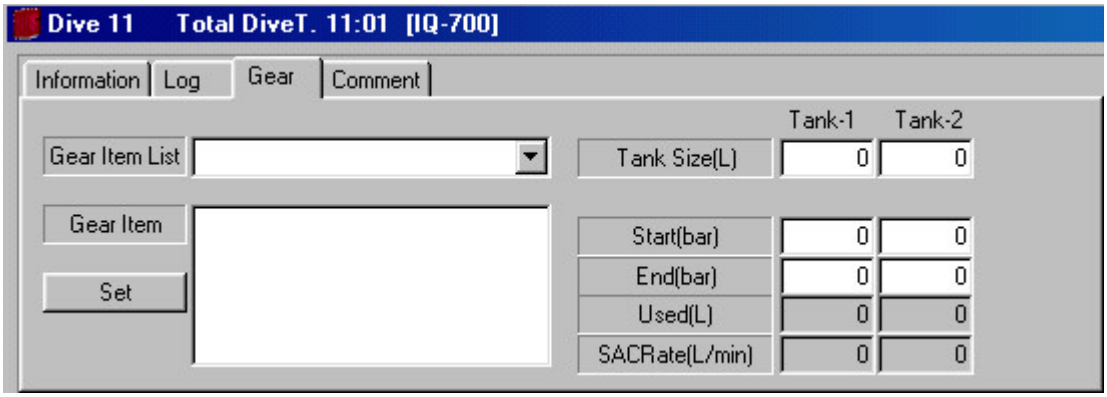
(1) UI specification

When "liters" has been selected (via the capacity unit option setting)

IQ-800



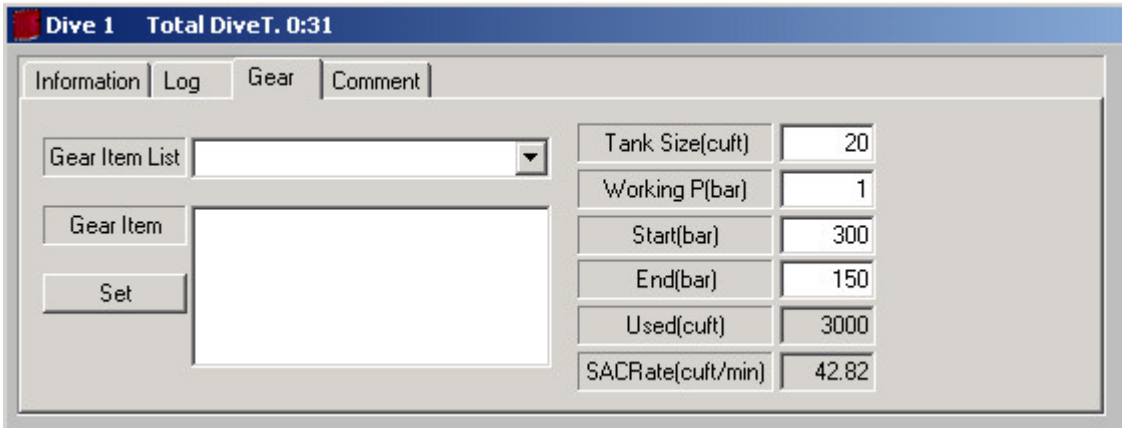
IQ-700



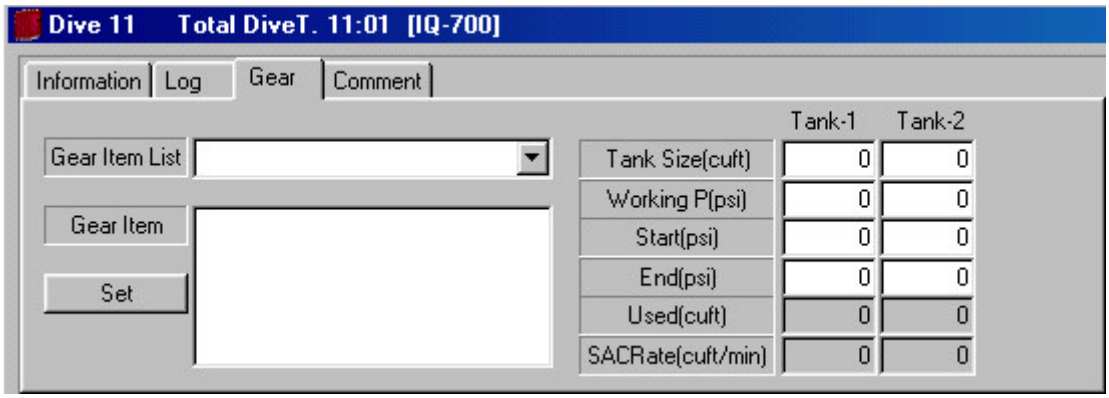
Or:

When "cu ft" has been selected (via the capacity unit option setting), the operating pressure is appended.

IQ-800



IQ-700



(2) Description of function

This is a record of equipment and air information used during a dive.

Item	Minimum value	Maximum value	Input condition	Function
Tank size	0	999	Integers	Tank size used during dive
Working pressure	0	9999	Integers	Standard pressure
Pressure at start	0	9999	Integers	Tank's residual pressure at start of dive
Pressure at end	0	9999	Integers	Tank's residual pressure at end of dive

- Gear item list: This lists the names of registered gear items. Any gear item that has been registered can be selected from this list.
- Gear item: This shows equipment used during a dive.
- Set button: Use this button to register gear items to specific patterns. Registered names of gear items are set to the gear item list.
- Tank size: This is the size of the tank used during a dive.
- Start(Pressure): This is the tank's residual pressure at the start of a dive.
- End(Pressure): This is the tank's residual pressure at the end of a dive.
- Used(Air usage): This is the amount of air used during a dive.

Air usage = (pressure at start – pressure at end) × tank size

Surface Air Consumption Rate: This is the amount of air consumption per 1 minute when converted to surface level.

Surface air consumption = usage / dive time / (10 + average depth) × 10

However, when the capacity unit is cubic feet, the following formula is used. (Note: The tank size has a different meaning compared to when liters are the capacity unit.)

- Working Pressure: This is the standard pressure at which air is inserted into the tank.
- Tank size: This is the total amount of air required to fill the tank to the specified working pressure.

(Example) When tank size = 80 cu ft, working pressure = 3000 psi, pressure at start = 2800 psi, pressure at end = 800 psi, dive time = 40 minutes, and average depth = 20 m:

The volume of air filled into the tank is calculated as follows.

Air volume at start = pressure at start / operating pressure * tank size = 2800 / 3000 * 80 = 74.666…. (= 74.6) cu ft

Air volume at end = pressure at end / working pressure * tank size = 800 / 3000 * 80 = 21.333….. (= 21.3 cu ft)

Air volume used = air volume at start - air volume at end = 74.6 - 21.3 = 53.3 cu ft

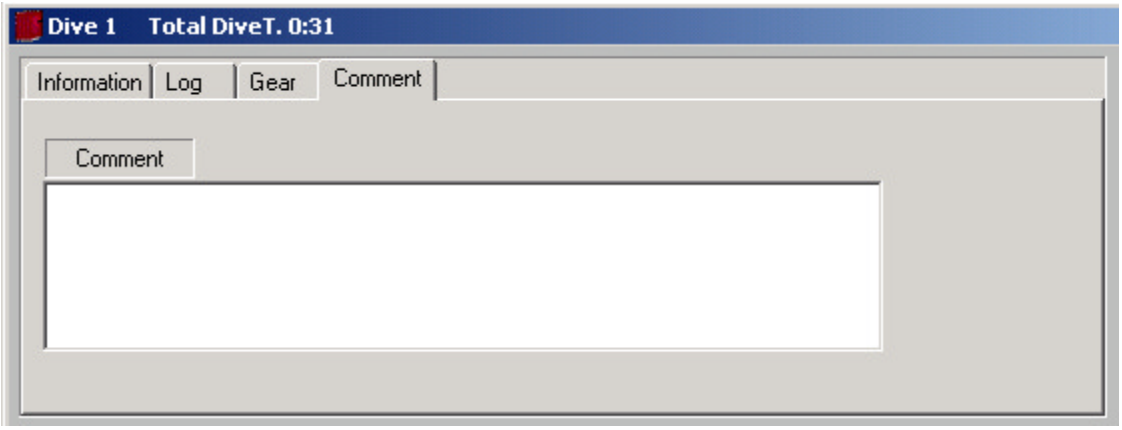
Surface air consumption rate = air volume used / dive time / (10 + average depth (m)) * 10 = 53.3 / 40 / (10 + 20) * 10 = 0.44 cu ft/min

Where 1 L = 0.03532 cu ft (cubic feet)

1 bar = 14.51 psi

Comment

(1) UI specification



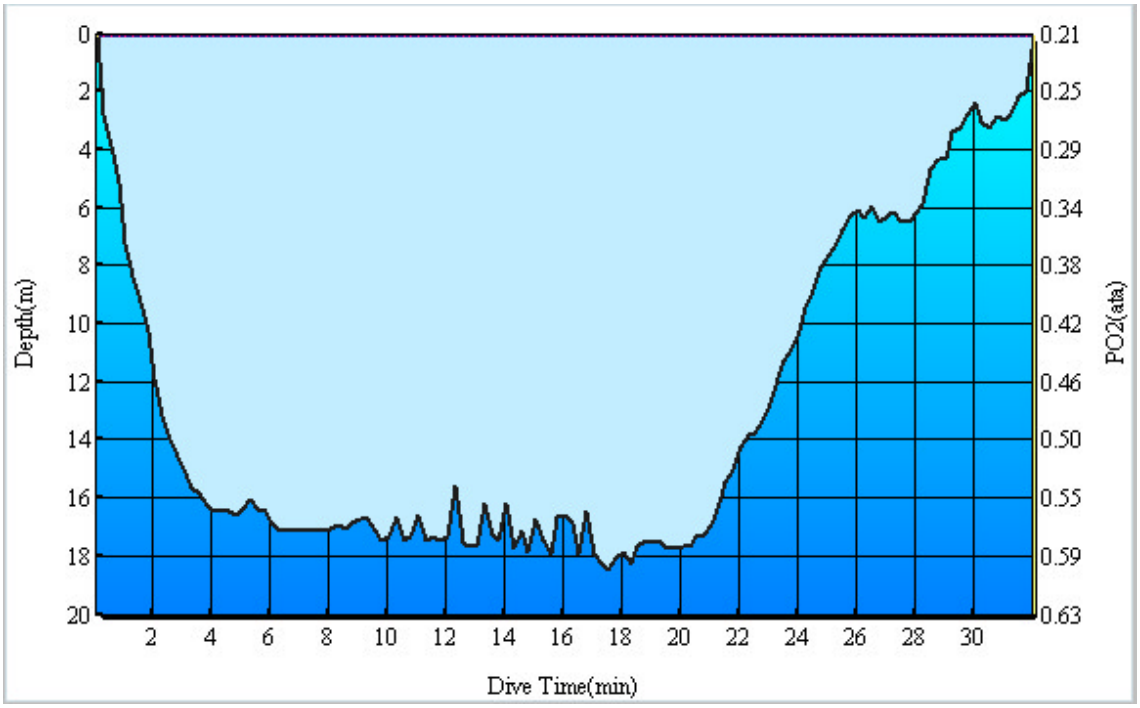
(2) Description of function

This function records comments.

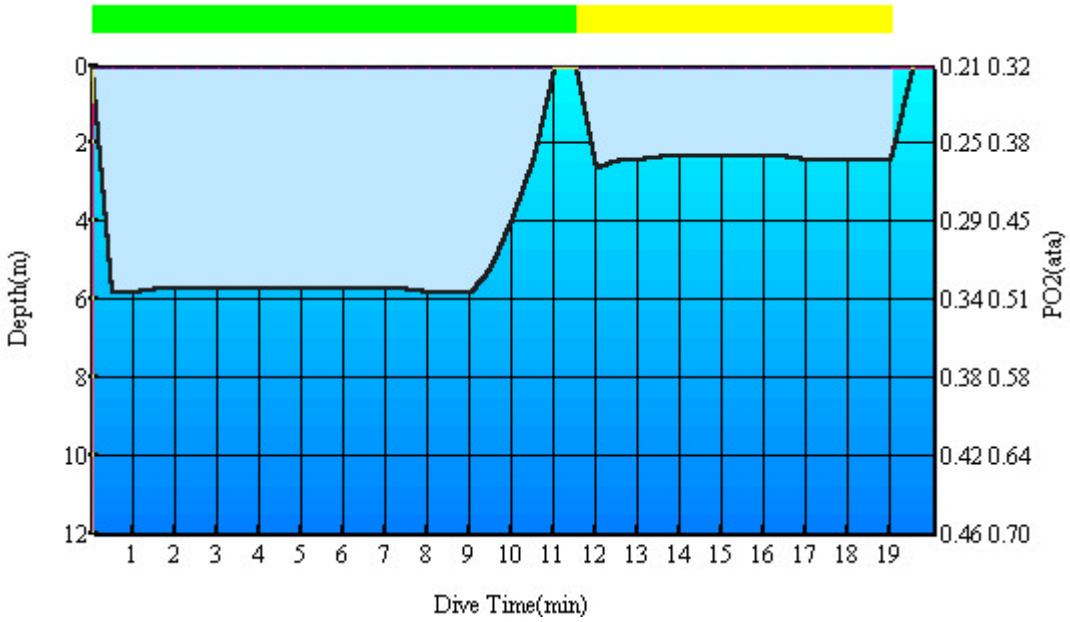
Graph

(1) UI specification

IQ-800



IQ-700


0
2
4
6
8
10
12
Depth(m)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Dive Time(min)
0.21 0.32
0.25 0.38
0.29 0.45
0.34 0.51
0.38 0.58
0.42 0.64
0.46 0.70
PO2(ata)

(2) Description of function

A depth profile graph is displayed. The Y axis shows the depth and the X axis shows the elapsed time. Selected points are shown on this graph using background grid lines along the X and Y axes. The scale of the graph is automatically adjusted to the optimum scale.

Vertical range: 0 m to 99.0 m or 0 ft to 328 ft

Horizontal range: 0 minutes to 599 minutes

This graph has a scroll bar at the bottom. Move the scroll bar or left-click the mouse on the graph window to select dive point data. The depth data, nitrogen bar graph data, etc. are calculated and revised according to the selected dive point data.

IQ-700 displays the bar to identify used tanks to the upper side of the graph. Tank-1 is displayed in green color and Tank-2 is displayed in yellow color. IQ-800 doe not display bars.

Dive Information

(1) UI specification

See "5.4.2 (1) UI specification".

(2) Description of function

Dive information is displayed based on the profile data selected on the graph.

The depth are indicated by selected unit.

Dive Time (0 to 599 minutes)

Depth (0 m to 199.9 m, or 0 ft to 656 ft)

NDL (1 to 200 minutes)

PGT (0 to 9)

OLI (0 to 8)

Max. Depth (0 m to 199.9 m, or 0 ft to 656 ft)

Deco Stop Time (1 to 99 minutes)

Deco Stop Depth (3 m to 99 m)

Total Ascent Time (1 to 999 minutes)

Tissue Saturation

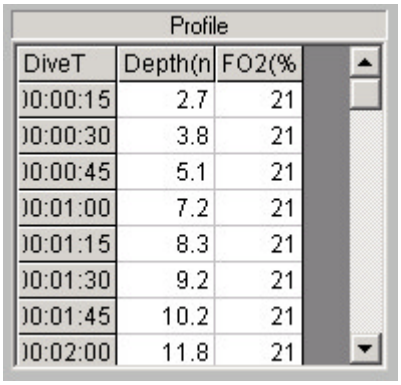
(1) UI specification

(2) Description of function

This is a vertical bar graph of the residual nitrogen level, based on the selected profile data via the graph. Along the vertical axis, values are given in relation to the M value (limit amount of nitrogen that can accumulate in the body) and along the horizontal axis compartments are arranged from left to right, compartment arranged left side accumulates nitrogen most rapidly. There are nine compartments in all. On the vertical axis, the tissue saturation level reaches 100% (PGT: 9) when the saturation level reached to M value in each compartment, and the maximum value that can be displayed is 200%. When the residual nitrogen level exceeds the M value, the bar graph color changes to red. The tissue saturation level at the start of the dive (if there is residual nitrogen in each compartment) is also displayed in the graph. (See print image)

Profile

(1) UI specification


Profile

DiveT	Depth(n	FO2(%
)0:00:15	2.7	21
)0:00:30	3.8	21
)0:00:45	5.1	21
)0:01:00	7.2	21
)0:01:15	8.3	21
)0:01:30	9.2	21
)0:01:45	10.2	21
)0:02:00	11.8	21

(2) Description of function

This sheet displays data from the Graph sheet. The column headings (from left to right) are Dive.T (dive time), Depth, and FO2 (fraction of oxygen).

The displayed depth value includes the first decimal place and the time display format is 00:00:00 (HH:MM:SS), using two digits per time unit.

The sampling time cannot be changed via this dialog box.

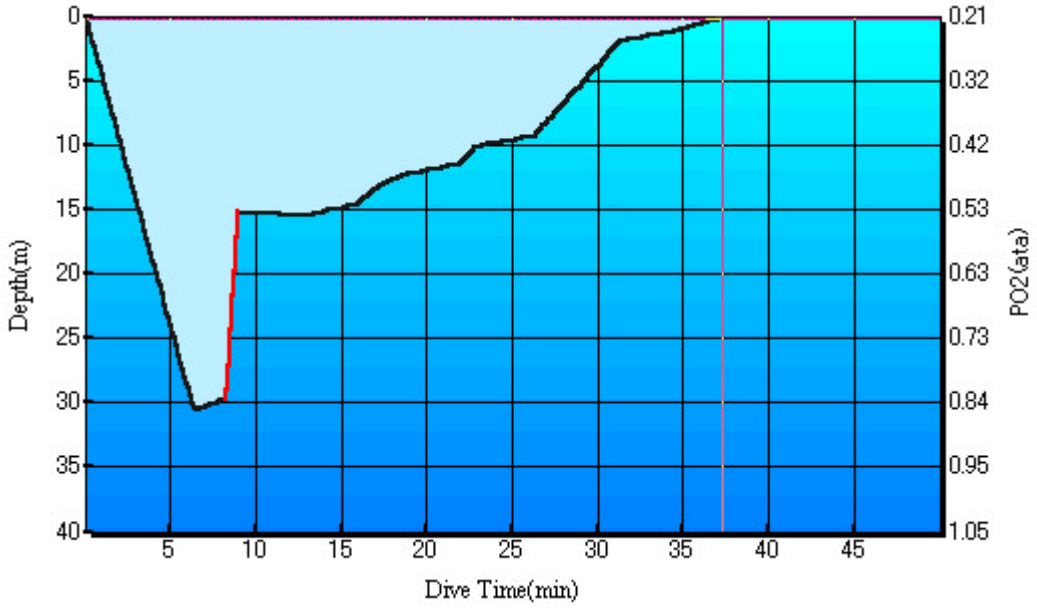
(3) Dive graph's warning patterns

Warning patterns

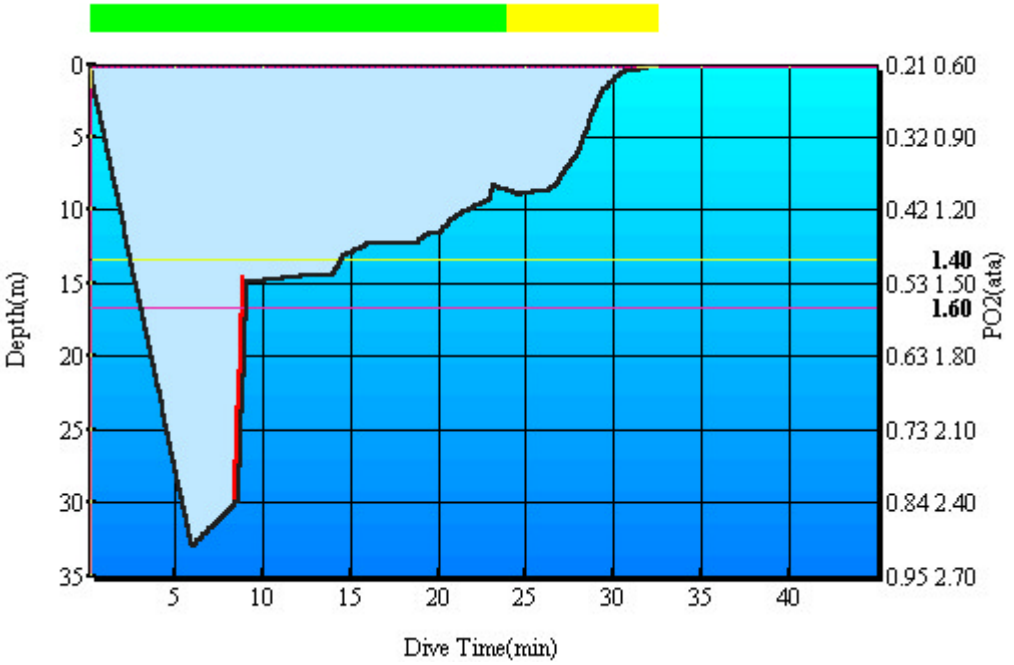
Ascent rate violation

A red line appears as a warning in any area of the graph that indicates an overly rapid ascent.

IQ-800



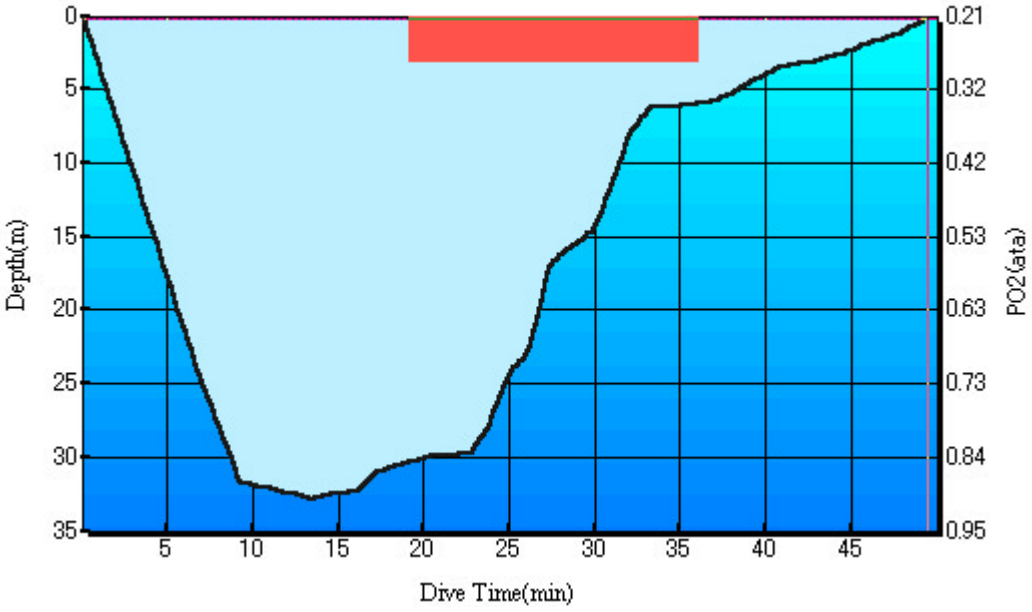
IQ-700



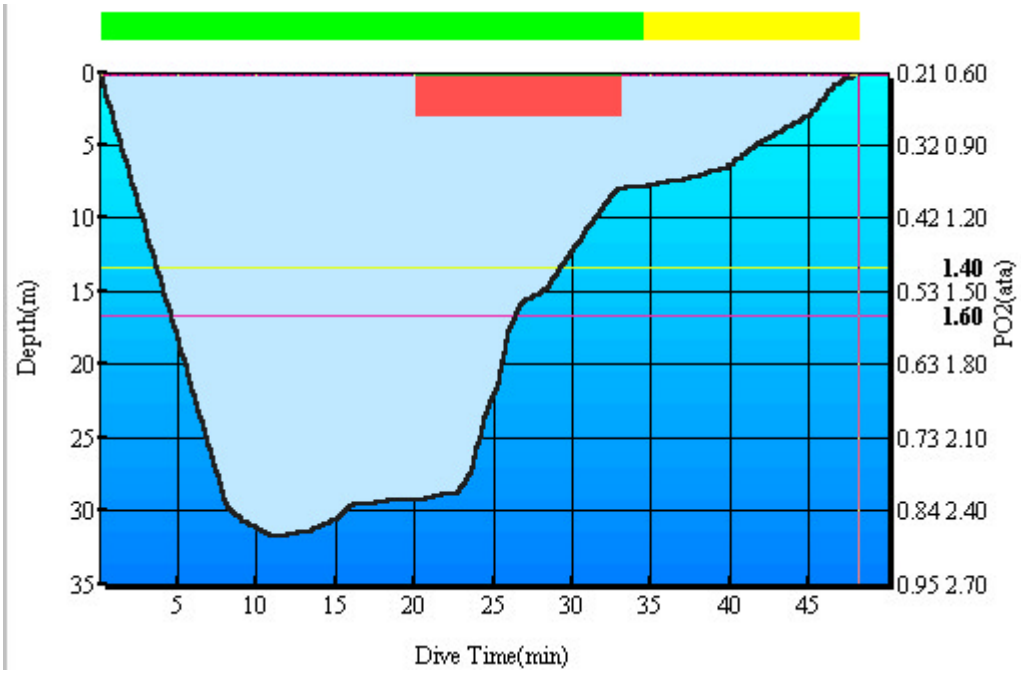
Decompression dive

A red warning area appears between the surface and the decompression stop depth when a dive include decompression diving. The vertical axis of this red area indicates the depth at which a decompression stop is required, and the horizontal axis indicates the required amount of decompression time.

IQ-800



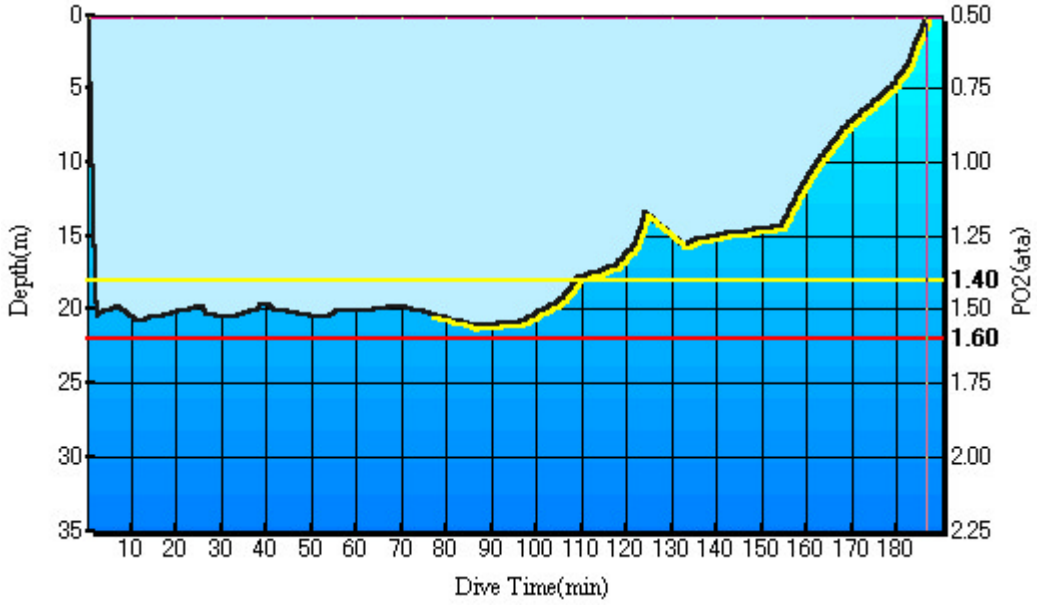
IQ-700



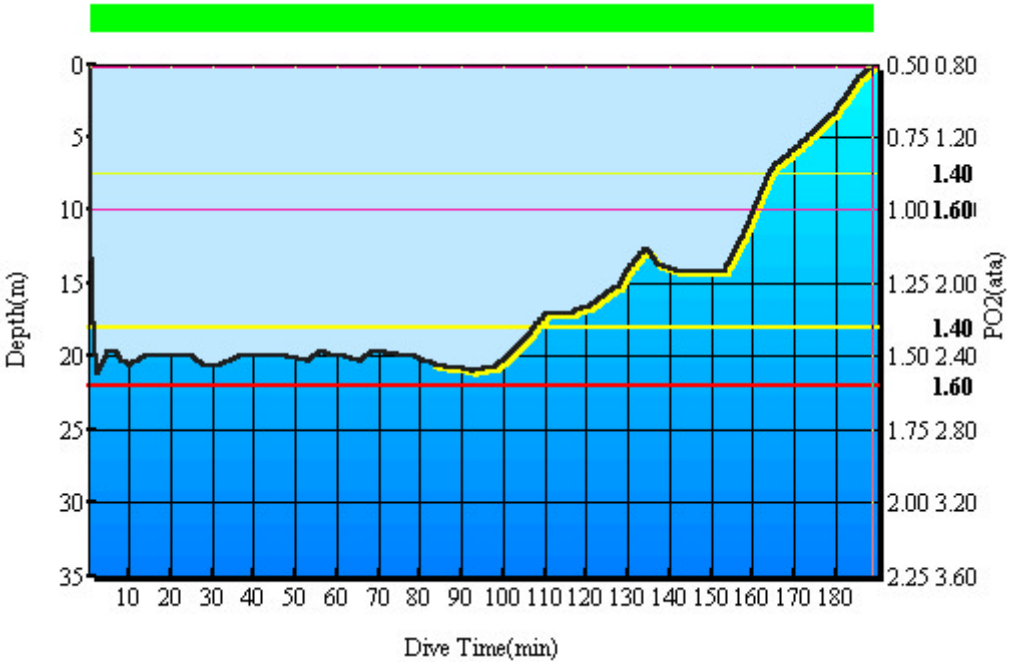
OLI warning (OLI = Oxygen Limited Indicator)

When air with high partial-pressure of oxygen (exceeding the limit) has been consumed, a yellow line appears as a warning for the parts of the dive when such air consumption occurred.

IQ-800



IQ-700



O2 warning (PO2 = Pressure of Oxygen)

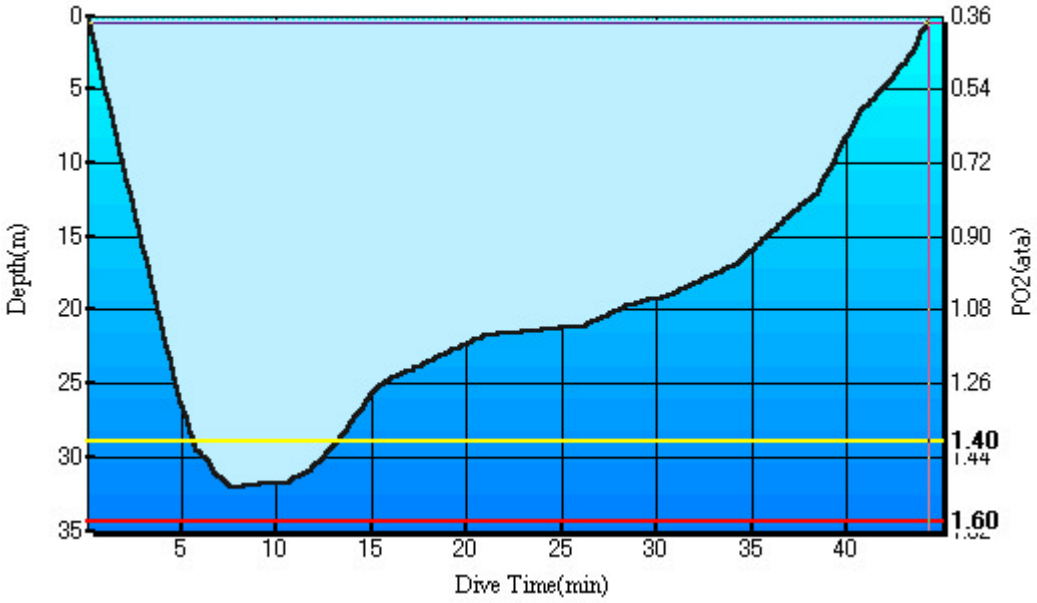
When the PO2 of Tank-1 value is greater than 1.4 but less than 1.6, a yellow line appears as a warning along the PO2 = 1.4 level.

When the PO2 value of Tank-1 is greater than 1.6, a red line appears as a warning along the PO2 = 1.6 level.

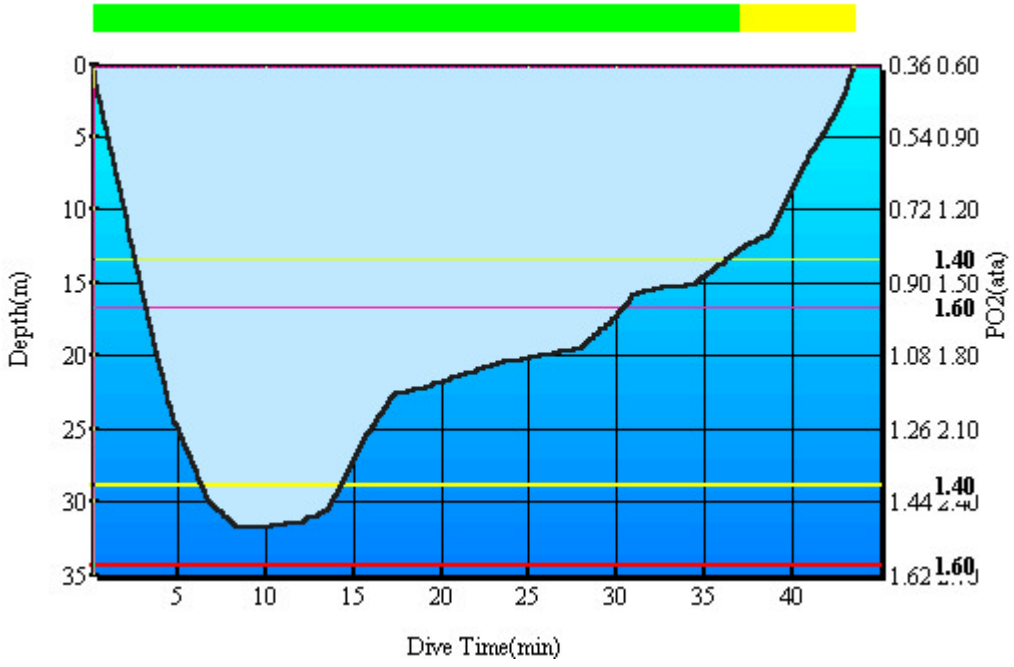
IQ-700 displays yellow thin line as a warning along the PO2 = 1.4 level when the PO2 of Tank-2 value is greater than 1.4 but less than 1.6. IQ-800 does not indicate the lines.

IQ-700 displays red thin line as a warning along the PO2 = 1.6 level when the PO2 of Tank-2 is greater than 1.6. IQ-800 does not indicate the lines.

IQ-800

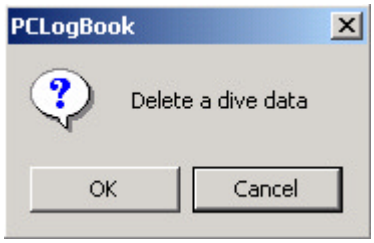

Depth(m)
0
5
10
15
20
25
30
35
5
10
15
20
25
30
35
40
Dive Time(min)
0.36
0.54
0.72
0.90
1.08
1.26
1.40
1.44
1.60
PO2(ata)

IQ-700


Depth(m)
0
5
10
15
20
25
30
35
5
10
15
20
25
30
35
40
Dive Time(min)
0.36 0.60
0.54 0.90
0.72 1.20
1.40
0.90 1.50
1.60
1.08 1.80
1.26 2.10
1.40
1.44
1.60
1.62
PO2(ata)

5.4.3 Edit-Delete

(1) UI specification



(2) Description of function

Selecting Edit-Delete ("Delete" in the pop-up menu) brings up a confirmation dialog box that asks you to confirm deletion of selected dive data.

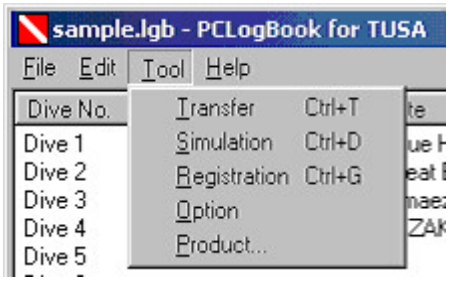
Clicking the Cancel button closes this dialog box and returns to the Main View window without deleting the dive data.

Clicking the OK button deletes the selected dive data. After the data is deleted, the data items with higher log numbers are shifted automatically.

If no dive data has been selected, a dialog box appears and prompts you to select dive data.

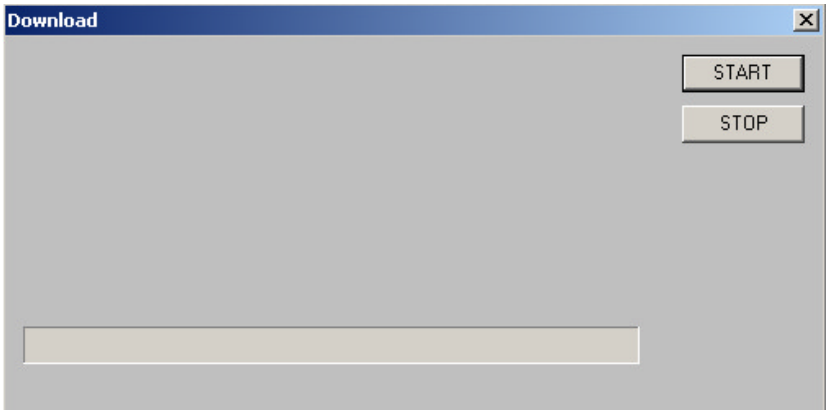
5.5 Tool

When you select the Tool menu, a pull-down menu appears with a list of items that includes Transfer, Dive simulation, and Registration, and Options.



5.5.1 Tool-Transfer

(1) UI specification



(2) Description of function

Selecting Tool-Transfer brings up the Download dialog box.

The Download dialog box includes a START button at the top for starting a download and a STOP button below for stopping it, along with an animated display of the download and a progress bar indicating download progress.

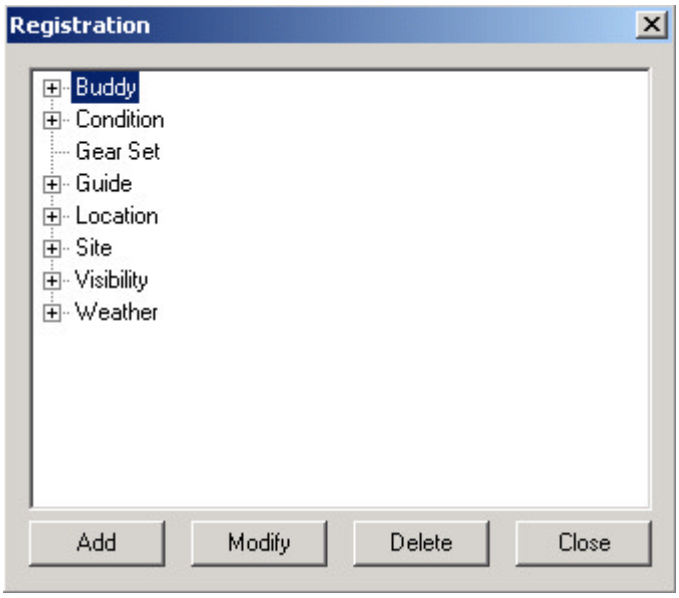
Selecting the STOP button terminates the current download and returns to the Main View window.

Selecting the START button initiates communication between the dive computer and a connected PC. At this transaction, communicates with the dive computer type that is displaying in the status bar. If the dive computer and the product type on the screen does not match or dive computers are not connected, or if normal communication is prevented with some reasons, a warning dialog box will appear.

PCLogBook
Can not recognize the connection of the PC interface.
Please check USB cable connection.
OK

5.5.2 Tool-Registration

(1) UI specification



(2) Description of function

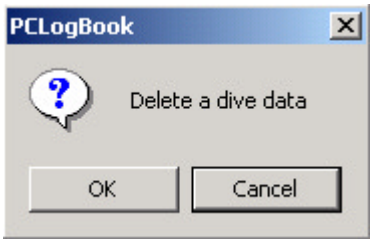
Selecting Tool-Registration brings up a dialog box with a hierarchical view of registration folders.

These registration folders include Guide, Gear Set, Conditions, Site, Buddy, Location, Weather, and Visibility folders. The data in each folder is the saved text data that has been entered into the combo boxes.

Selecting Insert inserts new data into the selected folder.

Selecting Edit enables editing of the selected data. However, the folder names (Guide, Gear Set, Conditions, Site, Buddy, Location, Weather, and Visibility) cannot be edited.

Selecting Delete deletes the selected data. Before the data is actually deleted, the following confirmation dialog box appears for confirmation.



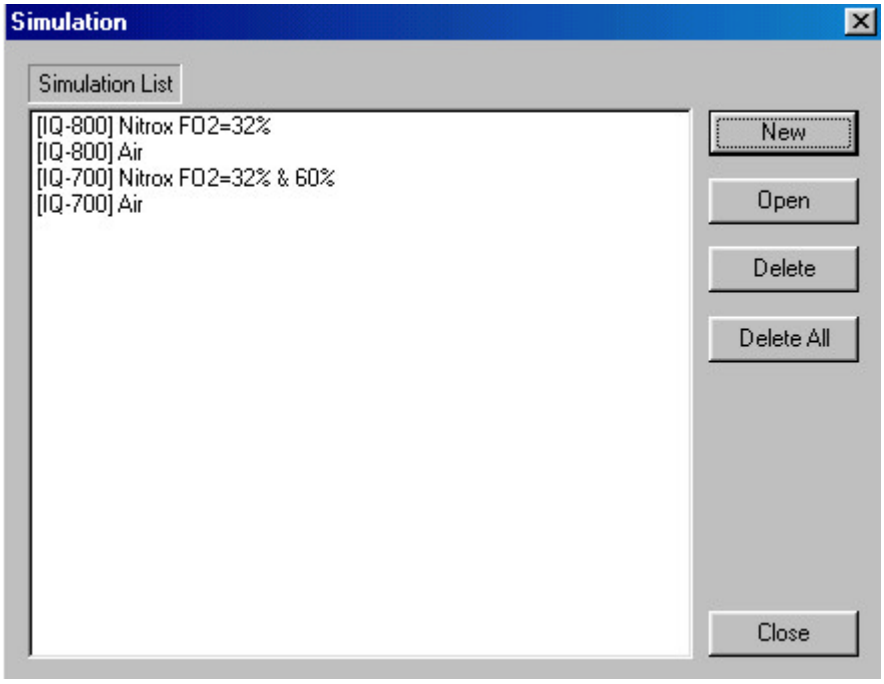
Select Close to close the Registration dialog box.

Data that is registered via this Registration dialog box can be viewed as an input list by selecting the drop-down buttons in the dive information combo boxes.

5.5.3 Tool-Simulation

(1) UI specification

At start-up:



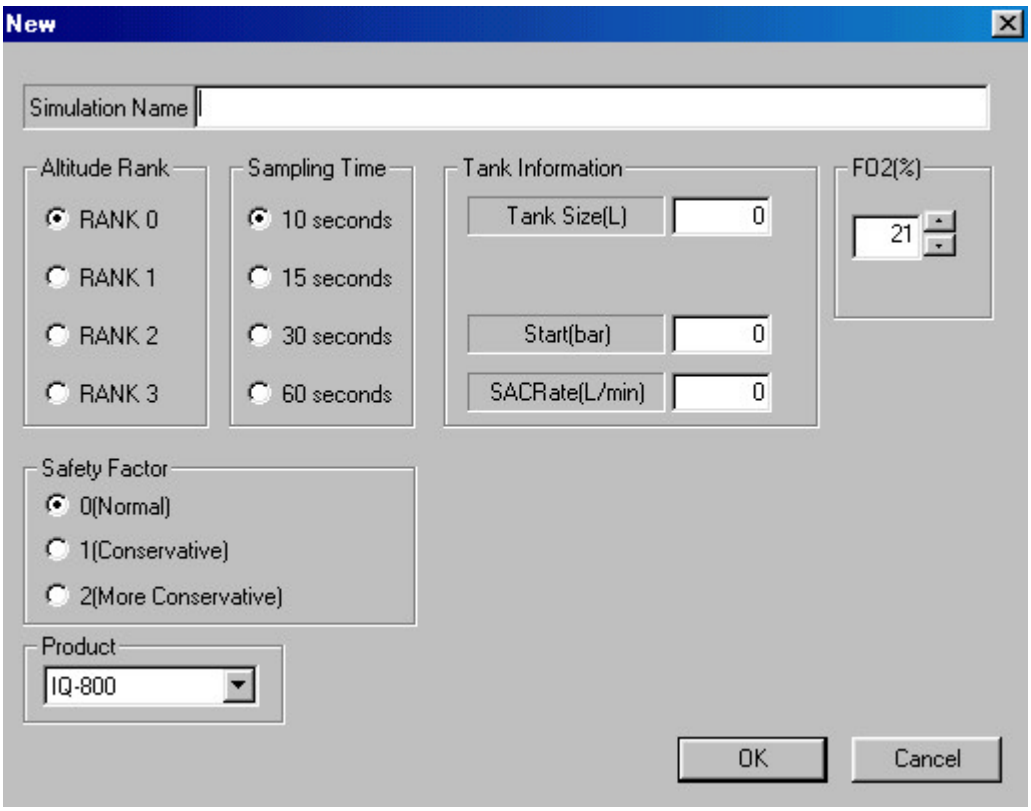
(2) Description of function

New: Create a new simulation.

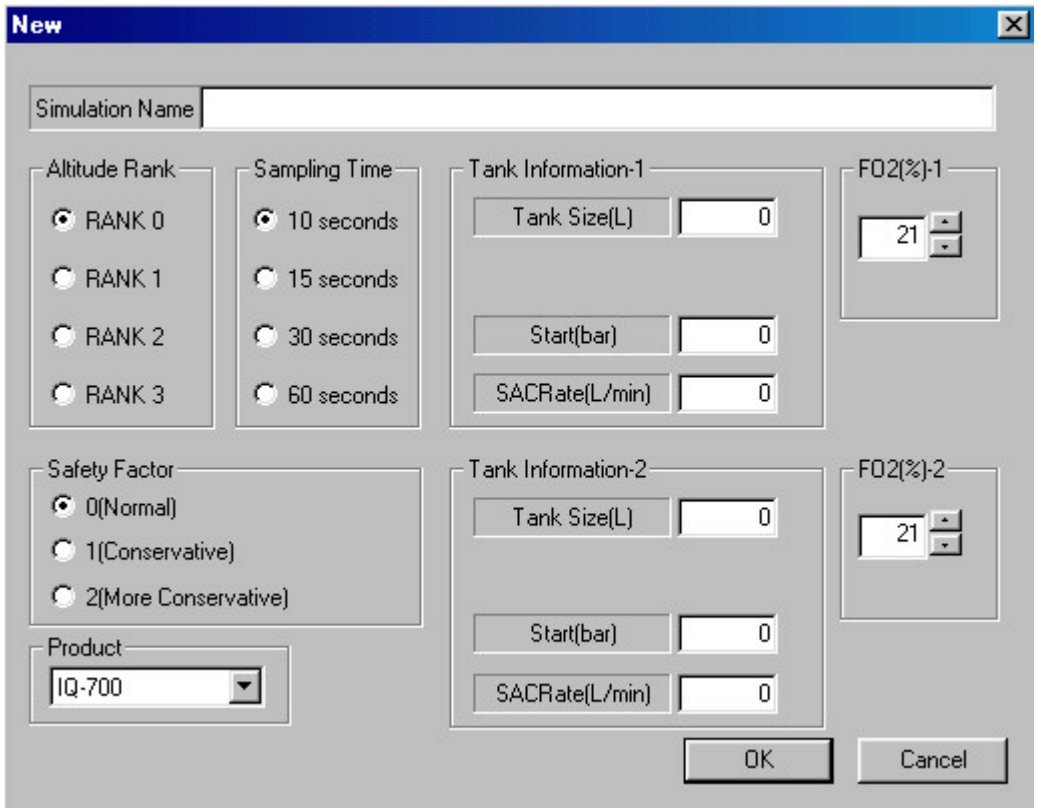
UI specification

When liters are the unit of capacity:

IQ-800

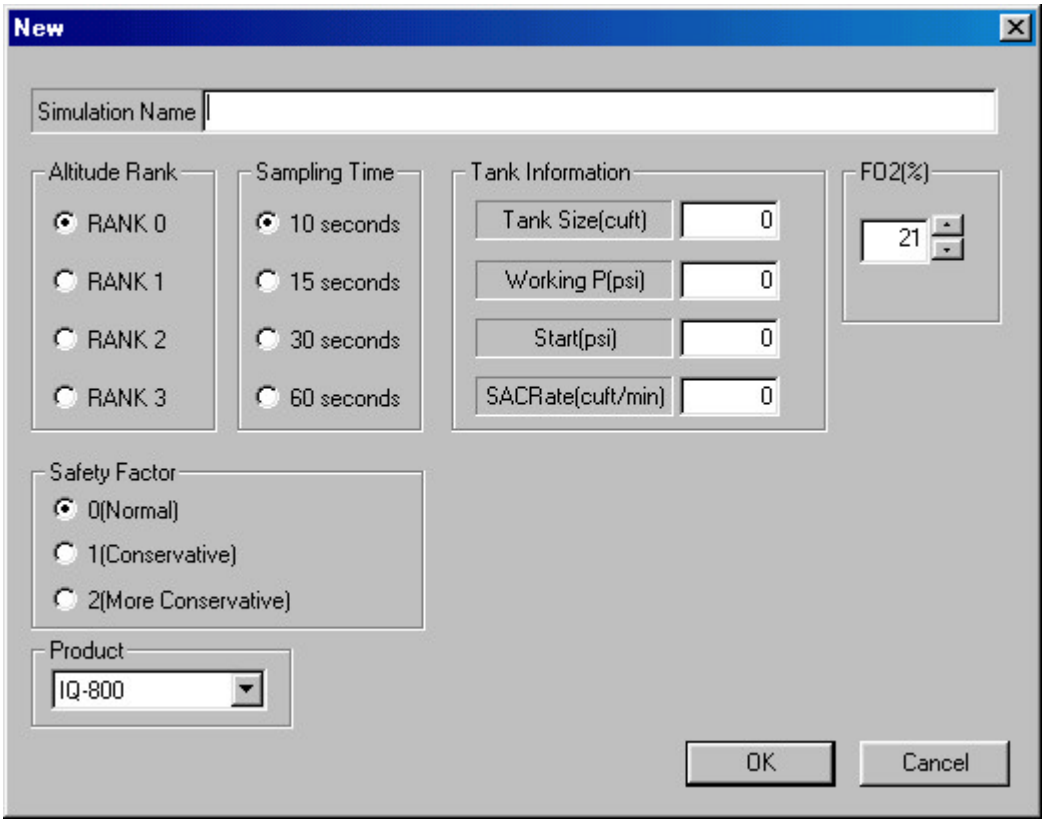

New
Simulation Name
Altitude Rank
RANK 0
RANK 1
RANK 2
RANK 3
Sampling Time
10 seconds
15 seconds
30 seconds
60 seconds
Tank Information
Tank Size(L)
0
Start(bar)
0
SACRate(L/min)
0
FO2(%)
21
Safety Factor
0(Normal)
1(Conservative)
2(More Conservative)
Product
IQ-800
OK
Cancel

IQ-700

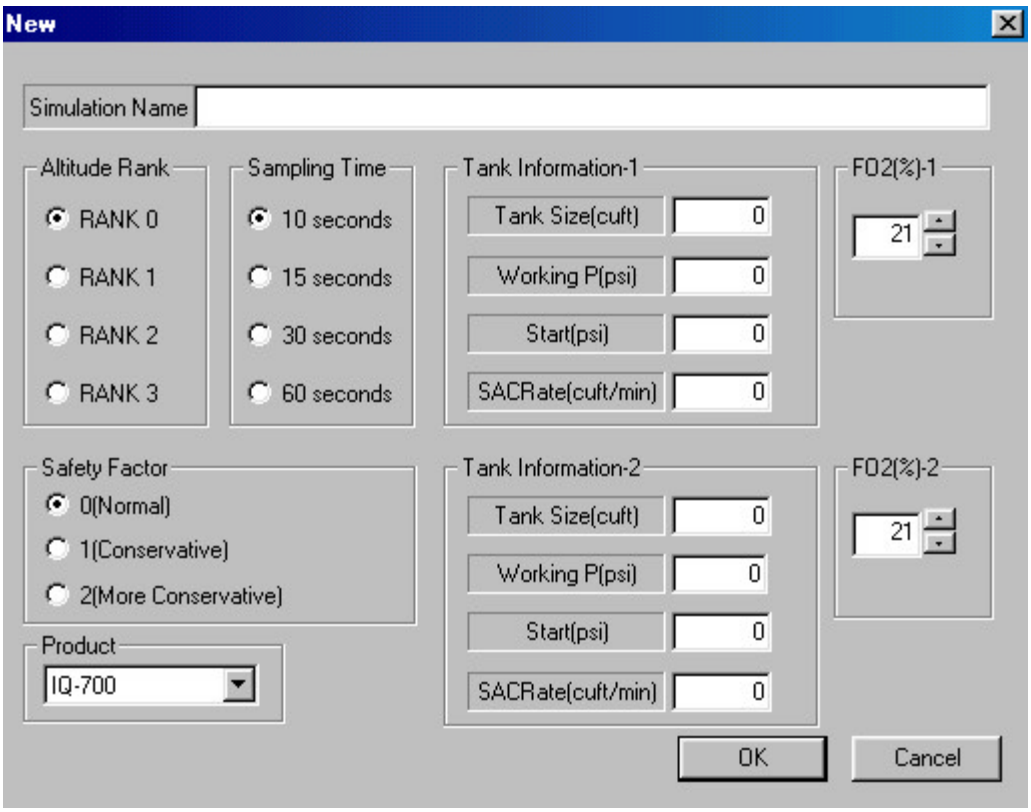

New
Simulation Name
Altitude Rank
RANK 0
RANK 1
RANK 2
RANK 3
Sampling Time
10 seconds
15 seconds
30 seconds
60 seconds
Tank Information-1
Tank Size(L)
0
Start(bar)
0
SACRate(L/min)
0
FO2(%)-1
21
Safety Factor
0(Normal)
1(Conservative)
2(More Conservative)
Tank Information-2
Tank Size(L)
0
Start(bar)
0
SACRate(L/min)
0
FO2(%)-2
21
Product
IQ-700
OK
Cancel

When cubic feet are the unit of capacity:

IQ-800



IQ-700



Description of function

- Simulation name: Name of simulation

Selecting Tool-Simulation-New brings up the New Simulation dialog box.

The following dive information is shown in the New Simulation dialog box. You cannot enter data that is out of the setting range.

Title	Min. value	Max. value	Input condition	Function
Simulation name			Up to 100 characters Duplicate simulation names are allowed	Name of simulation
Altitude rank	0	3	Integers	The altitude rank during a dive
Fraction of oxygen	21 (Air)	99	Integers	The fraction of oxygen in gas used during a dive
Safety factor	0	1	Integers	Diving safety factor
Sampling time (seconds)	10	60	10, 15, 30, 60	Sampling time for depth profile. Profile data is set based on this timing.
Product Type			Select from IQ-800 and IQ-700	The product type that do simulations

Tank size	0	999	Integers	Tank size during a dive
Pressure at start of dive	0	9999	Integers	Tank's residual pressure during a dive
Surface air consumption	0	9999	Integers	Percentage of surface air consumption during a dive
Fraction of oxygen 1,2	21 (Air)	99	Integers	Fraction of oxygen in gas used during a dive.

Open: Displays previously saved simulation data.

Delete: Deletes previously saved simulation data.

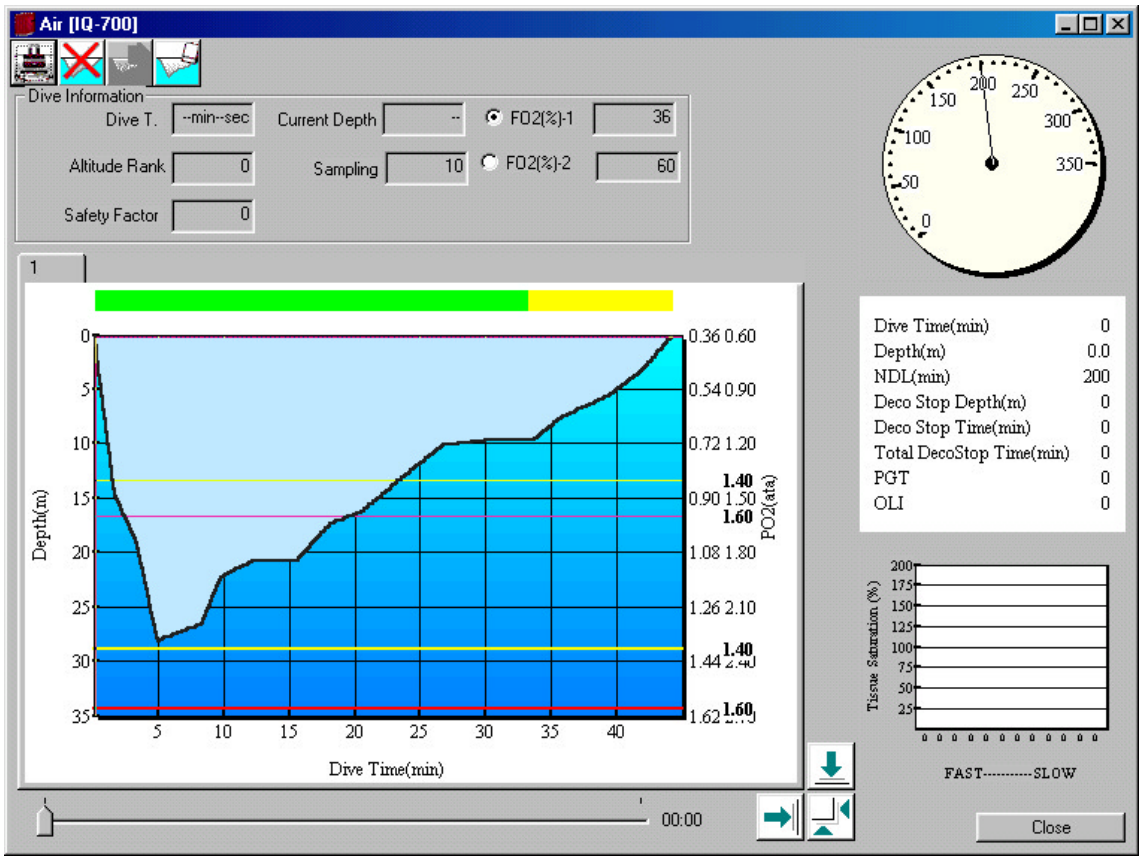
Delete All: Deletes all previously saved simulation data.

Close: Ends a simulation.

If no data has been saved, the Open, Delete, and Delete All buttons are grayed out and cannot be used.

(3) Execution of simulation

The Simulation window shows the previously set altitude rank, safety factor, sampling time (seconds), and fraction of oxygen FO2 (%) as dive information (upper left of screen). The current dive time and current depth are highlighted at the mouse cursor position in the dive graph (lower left of screen). The upper right of the screen shows the residual pressure gauge, and the center right contains dive computer information, below which is a bar graph (dive graph) of nitrogen saturation values for each compartment. Clicking the mouse to create a dive pattern. The screens show the residual pressure gauge, dive computer information, and simulated results on the bar graph corresponding to depth versus dive time in the pattern.



1. Create dive pattern

Click the mouse at any position on the dive graph.

IQ-700 can switch tanks before starting the next dive. To switch tanks, right click with a mouse on the graph to identify the location then click radio button of dive information, or right click on the graph then select pop-up menu that will be displayed.

You can switch tanks either while you are creating graphs or after you surfaced.

Memo:

The current mouse cursor position is displayed based on a calculation using the current dive time and current depth.

2. Dive graph scale adjustment

Use the arrow buttons near the bottom right corner of the dive graph to resize the scale of time and depth axes when creating a dive graph.

Use this button to increase the dive time scale. (This scale's maximum value is 650 minutes.)

Use this button to increase the depth scale. (This scale's maximum value is 120 meters or 350 ft.)

Use this button to optimize the graph's size.

3. Delete dive pattern

Select the Delete Profile button to delete the dive pattern.

4. Reset dive patterns

Select the Reset button to reset all dive patterns.

5. Checking dive information

Click any point in a previously created dive pattern to check the dive information at that point.

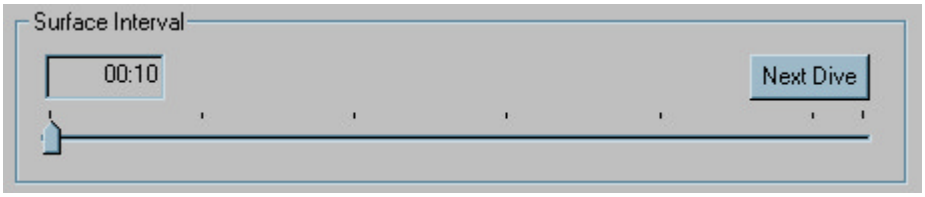
6. Closing a dive pattern

Close a display of dive information by clicking a spot that shows a depth of 0 meters or less (out of range).

7. Switching to surface interval mode

Select the Next Dive button to switch to surface rest mode before starting the next dive.

8. Setting the elapsed surface time



Adjust the slider position to change the elapsed surface time.

Memo:

Changes in amount of residual nitrogen during surface time can also be checked by the tissue saturation bar graph.

9. Move to the Repetitive Dive Mode.

Press the Repeat Dive button to transfer to repeated (continuous) dive mode.

Memo:

Up to 10 dives can be set as repetitive dives.

10. Printing Simulation Data

Select the Print button to print simulation data.

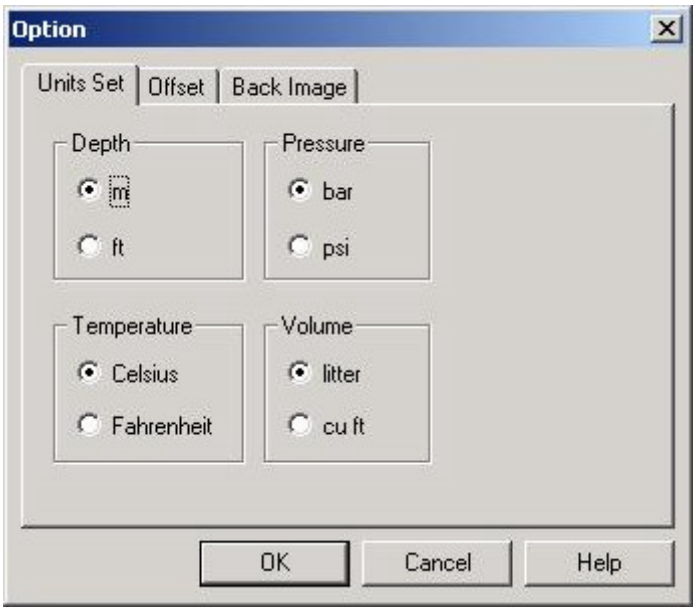
Memo:

Data for the selected diving pattern will be printed.

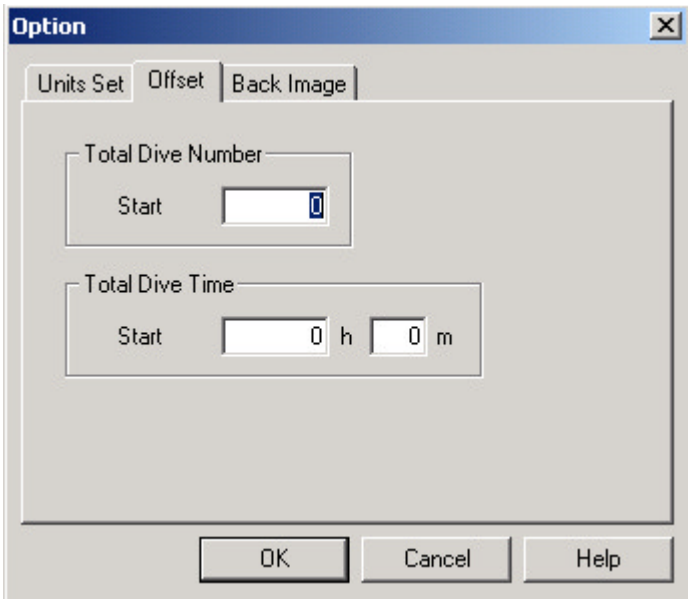
5.5.4 Tool-Option

(1) UI specification

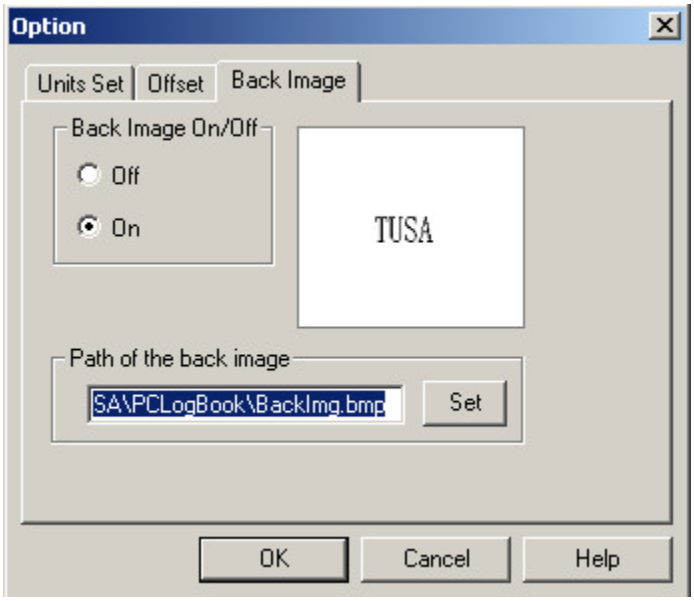
Units



Offset



Background image



(2) Description of function

Select Tool-Option to bring up the Option dialog box.

The Option dialog box includes three property sheets. From left to right, these are the Units sheet, Offset sheet, and Background Image sheet. In all of these property sheets, select OK to save your settings or select Cancel (or the x button at the upper right corner) to cancel your settings.

Units

The four options for unit settings are described below.

Unit	Settings	Initial setting
Depth	Meters or feet	Meters
Water temperature	Celsius or Fahrenheit	Celsius
Pressure	Bars or cubic pounds per inch	Bars
Capacity	Liters or gallons	Liters

Offset

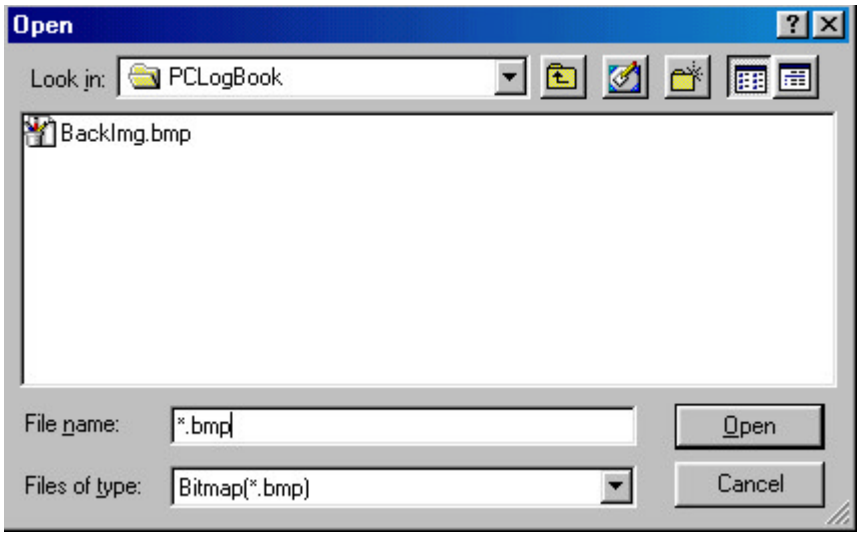
This sets the initial value for the dive number.

Total number of dives: 0 to 10000

Total dive time: 00:00 to 9999: 59

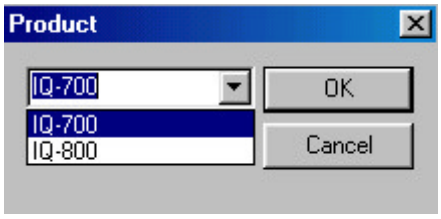
Background image

This registers a background image to display in the Main View window. Click the Register button to open a dialog box for selecting the file that contains the desired background image.



5.5.5 Tool-Product Switch

(1) UI specification



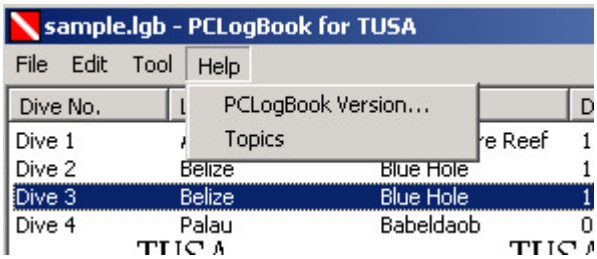
(2) Description of function

The product type can be selected and switched between IQ-800 and IQ-700 and the switched product type is shown in the status bar.

The product type in the status bar is the one to execute "**Edit - Import**" and " **Tool - Communication** ".

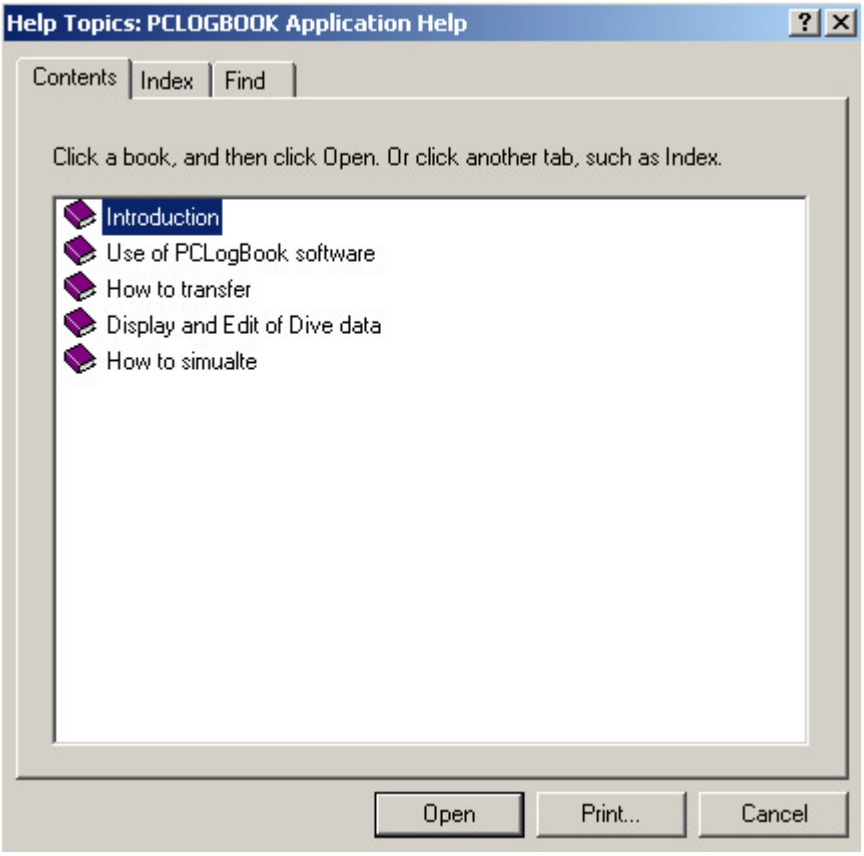
5.6 Help

Select the Help menu to display a pull-down menu that includes the application's version information and a link to the Help Topics dialog box.



5.6.1 Help-Help Topics

(1) UI specification

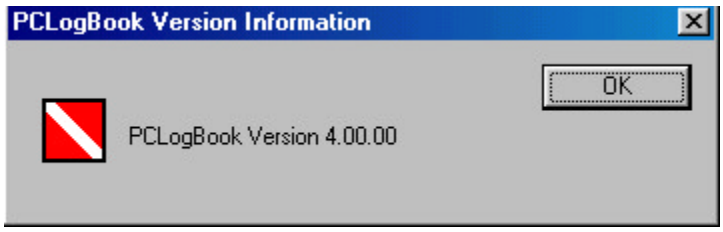


(2) Description of function

Selecting a search of topics from the menu bar brings up a list of help topics.

5.6.2 Help-About

(1) UI specification



(2) Description of function

When revision information has been executed for the menu bar, the lgb1.dat file in the installation directory is displayed.

Left-click the mouse in the dialog box or press the Enter or Esc key to close this dialog box and return to the list.

6. New function of version 4.0

6.1 Mix change (IQ-700 only)

6.1.1 Dive data

You can download the dive data that are mix changed using two tanks. When you display the dive data, the bar to identify used tanks is displayed at the top of the graph. The first tank (FO2-1) is indicated in green color and the second tank (FO2-2) is indicated in yellow color.

6.1.2 Simulation

You can do the simulation as switching Mix using two tanks at dive simulations.

6.2 Correspond to plural product type

6.2.1 Dive data

You can mix dive data of IQ-800 and IQ-700 in one LGB file. The product type will be displayed by each dive data on the main view.

To add or communicate, specify the current product type then execute it. (Once you have specified the product type, the same operation is not required again unless you change the product type.)

The currently specified product type is displayed in the status bar. You can change the type with “Product switch” from tool menu. And it is also changed with opening or printing dive data of specified product type.

6.2.2 Simulation

You can select a product type (IQ-800, IQ-700) while you are creating a new simulation.

7. Upgrade notice

7.1 LGB files

LGB files before version 3.01 and after version 4.0 are not compatible.

LGB files before version 3.01 can be read by the import operation.

LGB files after version 4.0 cannot be read with the PCLogBook before version 3.01.

<NOTICE> When you operate “Import” and create a new LGB file with the same name and the same location as before version 3.01, the file contents will be overwritten. Once the file has overwritten as an LGB file version 4.0, the file format cannot be downgraded to before version 3.01.

Using different file names from those existing files to import is recommended.

7.2 Additional import

Even if you do not upgrade existing LGB files immediately at the initial start-up, you can import LGB files data in the previous version later.

When you execute the import from file menu and specify the file, you can import dive data of the previous version additionally to the file currently open.

But the LGB files that are able to specify at this transaction is limited to LGB files of IQ-800.

And also, you can specify a LGB file in upgraded version and import, then add the dive data to the currently open file.

REVISION HISTRY

Rev.	Sheet	Comment
A	ALL	-
B	67	7. Upgrade notice 7.2 Start-up after upgrade [Delete]