

# ANDI GAP Dive Planner

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ITD 10

# Decompression Models

- Bühlmann
  - Deco curve controlled by Gradient Factors
- DCAP MF11F6
  - Deco curve controlled by Gradient Factors
  - GF-Low of 99% and GF-High of 100%  
approximate published tables
- RGBM (Reduced Gradient Bubble Model)
  - 5 pre-programmed levels of conservatism

# Bühlmann

ANDI GAP DivePlanner (Build: 1393) Product CCR-OC Nitrox Trimix HeliOx

File Defaults Reports Tools View Window Help



Deco gases

- ☒ [Back gas]
- ☒ Oxygen
- ☐ EAN80
- ☒ SafeAir50
- ☐ SafeAir36
- ☐ 25Tx35
- ☐ SafeAir32
- ☐ 25Tx32
- ☐ 35Tx21

Deco model

Neo Haldane RGBM  
Bühlmann ZH-L16C

Low 20 %  
High 85 %

60m25\_30m20ccr.prf ['Default' template]

Legend  
RGBM  
GF



Depth	Time	% O2	% He
60	25	20	35
30	20	20	35

Info

Units: Metric  
Max depth: 60  
Run time: 93  
Total CNS: 86.9%  
Deco model: Bühlmann ZH-L16C  
Settings: GF  
High: 85 %  
Low: 20 %  
System: OC

Gas usage:

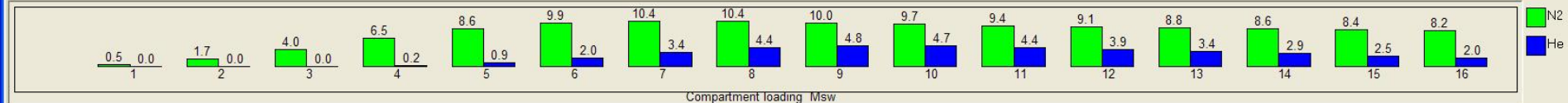
Gas	Gas usage
35Tx20	3425.73
SafeAir50	623.35
Oxygen	624.40

OC schedule:

D	S (Rt)	Gas	PP02
60	19.0 (25)	35Tx20	1.40
30	17.0 (45)	35Tx20	0.80
21	5 (51)	SafeAir50	1.55
18	1 (52)	SafeAir50	1.40
15	1 (54)	SafeAir50	1.25
12	4 (58)	SafeAir50	1.10
9	6 (64)	SafeAir50	0.95
6	23 (87)	Oxygen	1.60

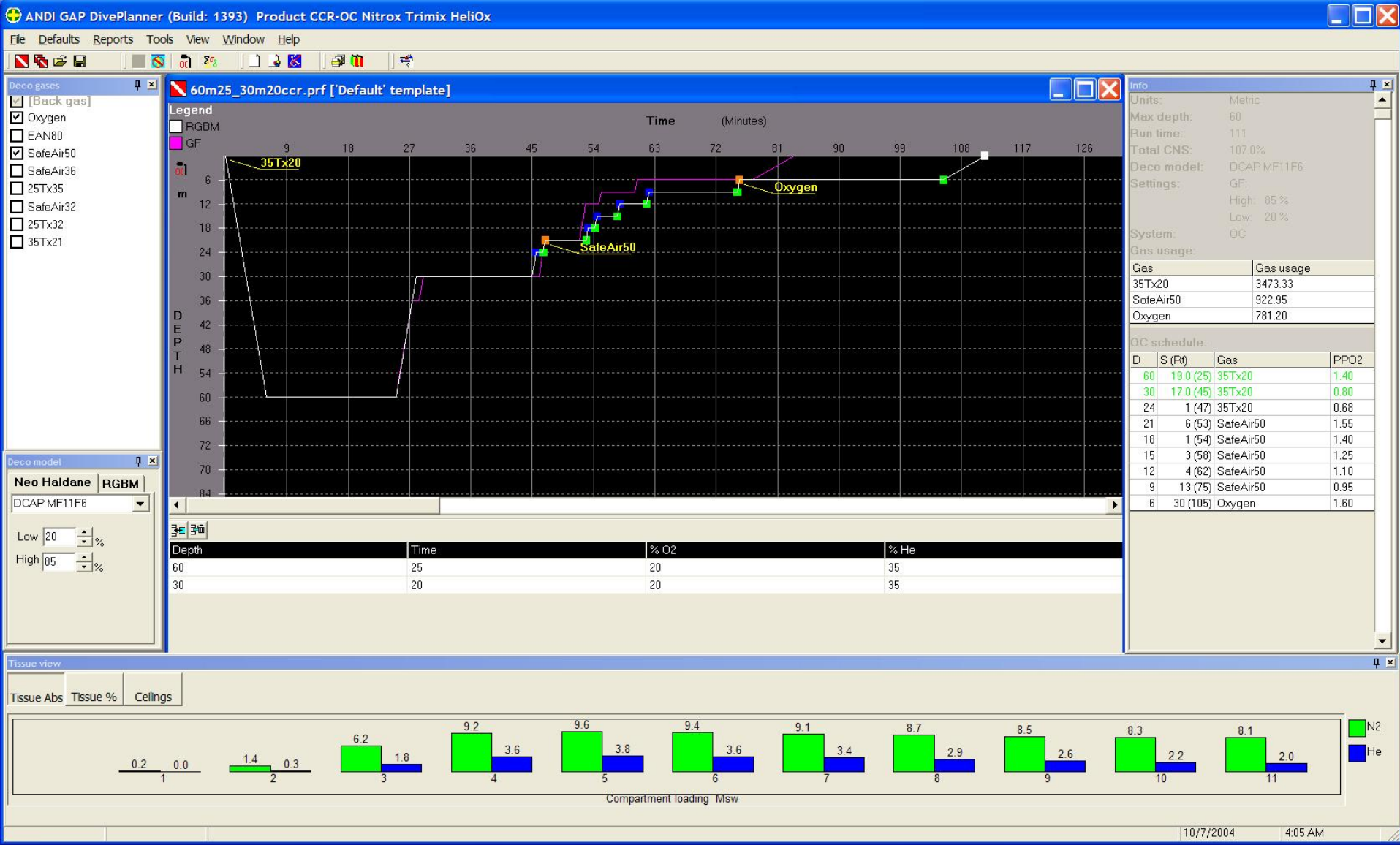
Tissue view

Tissue Abs Tissue % Ceilings

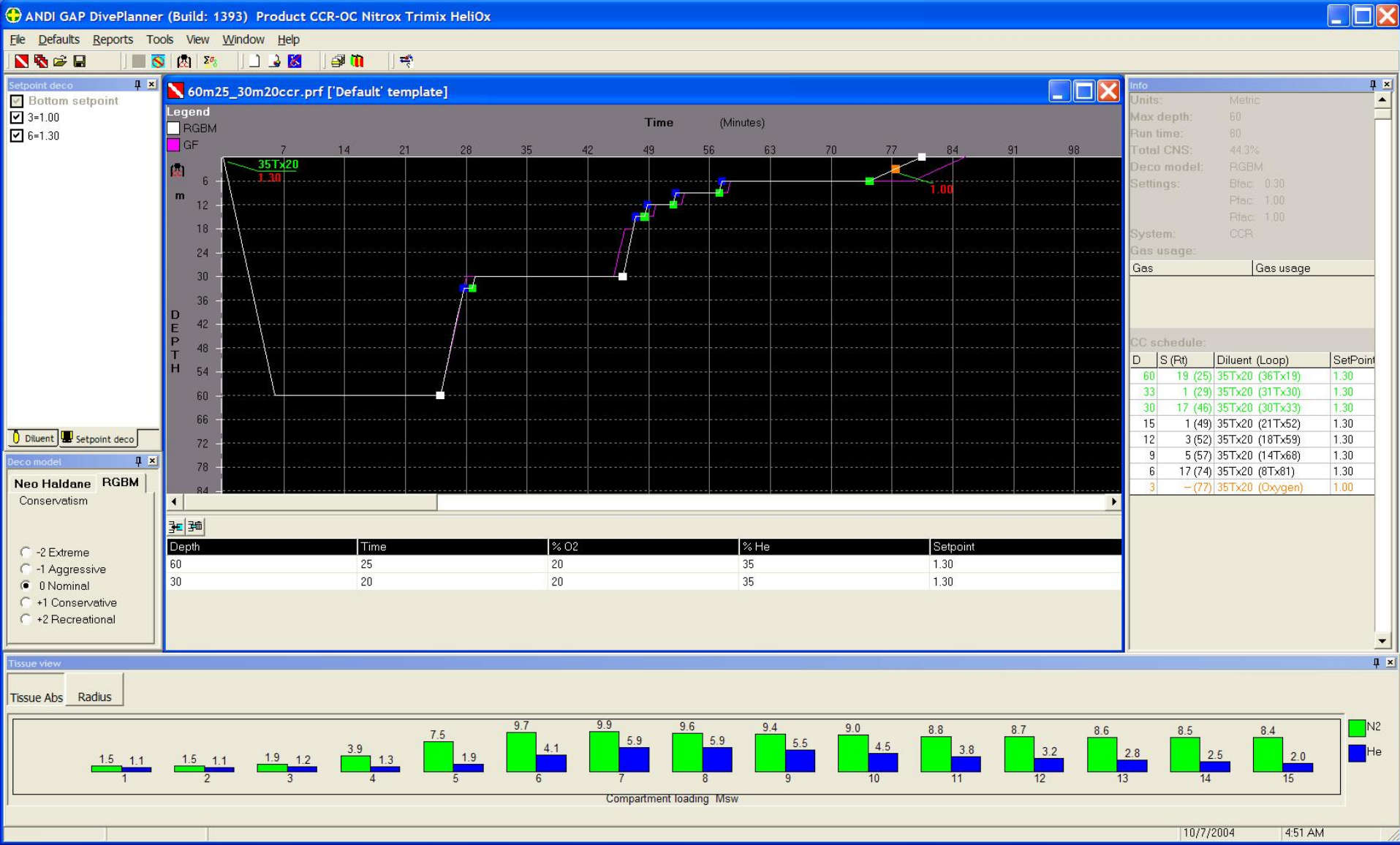


10/7/2004 4:07 AM

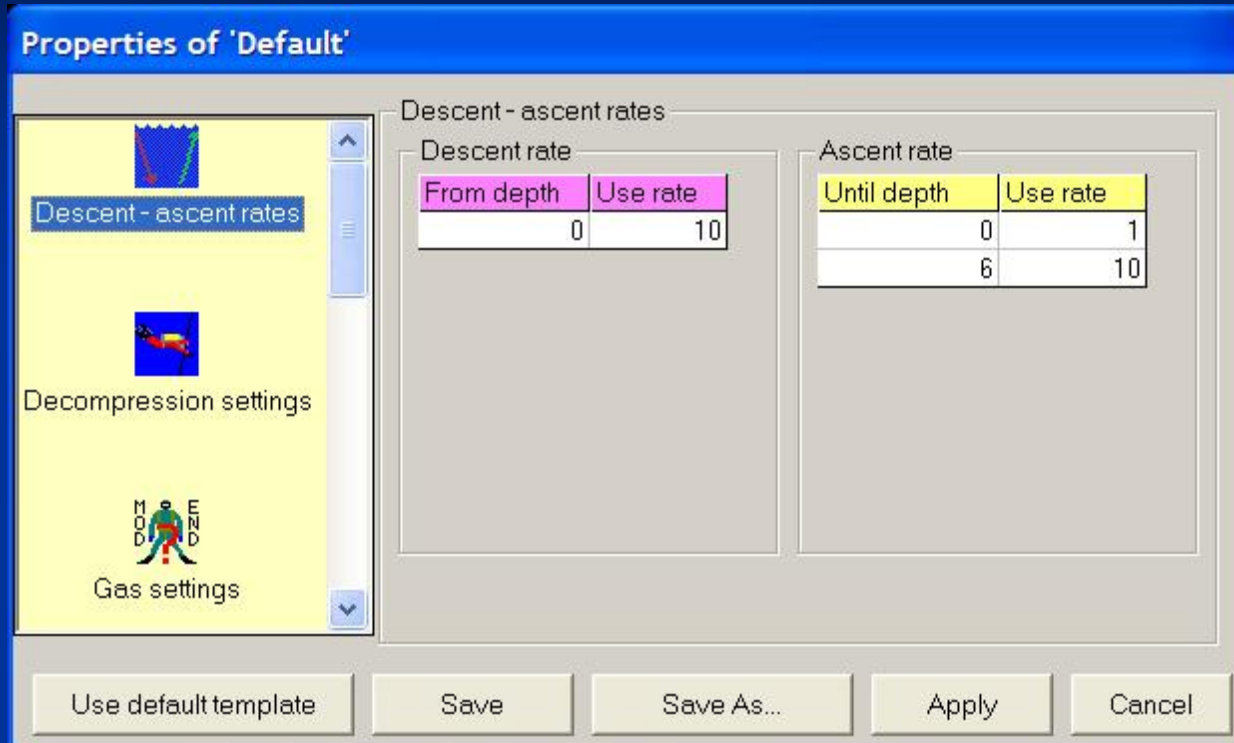
# DCAP MF11F6



# RGBM



# Descent/Ascent Rates



- Individual settings for ascent and descent
- Multiple rates based on depth



# Decompression Settings

- User defined
  - decompression gases
  - variable minimum stop times at gas switch depths
  - decompression step size
  - last decompression stop
  - maximum allowable  $PO_2$
  - RMV entry for Open Circuit gas requirement calculations

Properties of 'Default'

Decompression settings

Gas mix change during deco

Depth	Gas	St
∞	[Back gas]	
6	Oxygen	0
9	EAN80	0
21	SafeAir50	5
36	SafeAir36	2
36	25Tx35	2
40	SafeAir32	2
40	25Tx32	2
57	35Tx21	0

Deco step

Step size

Last stop

Deco gas settings

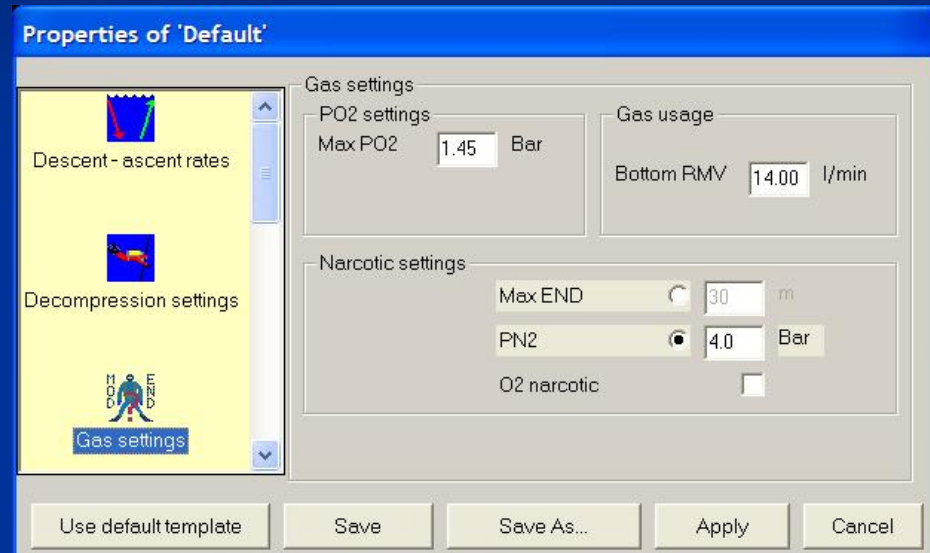
Deco  $PO_2$

Deco RMV

Use default template Save Save As... Apply Cancel

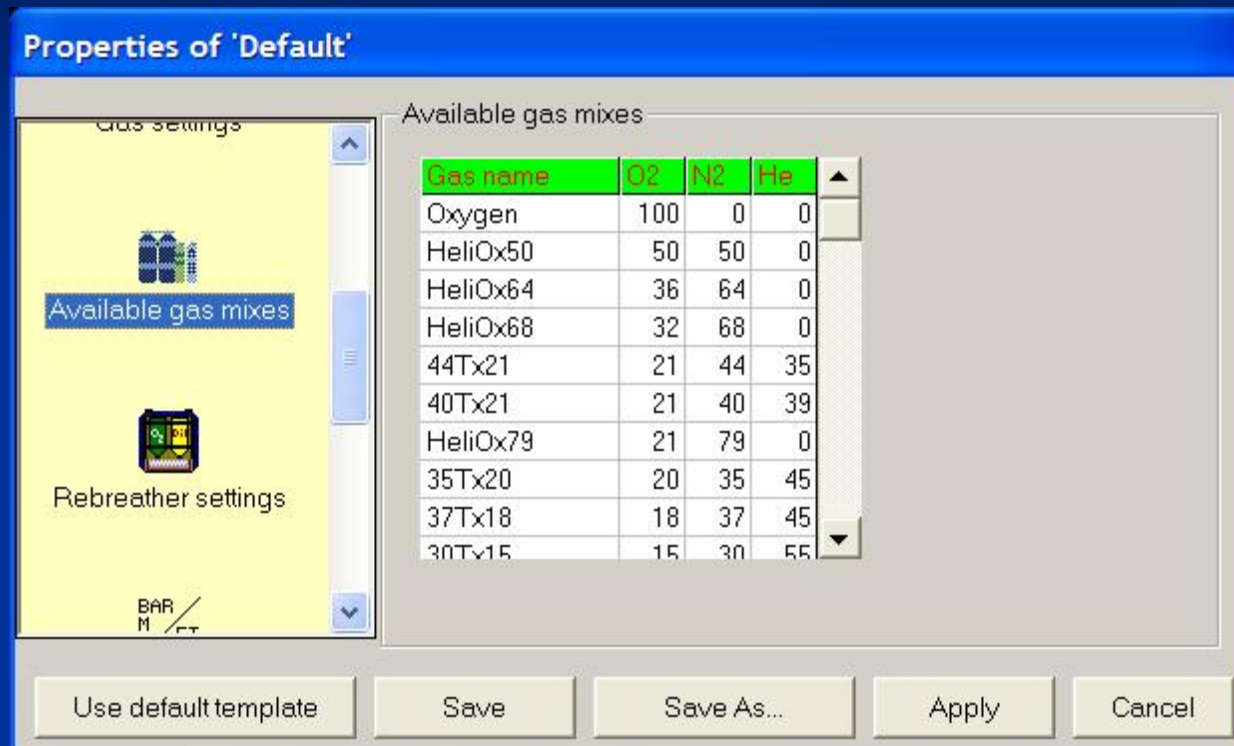
# Gas Settings

- Maximum PO<sub>2</sub> setting
  - Automatic gas creation
  - Warnings/Alerts for exceeded limits
- Narcotic Settings
  - Automatic gas creation
  - Warnings/Alerts for exceeded limits
    - By END
    - By PN2
    - O<sub>2</sub> narcotic (Yes/No)
- RMV entry for Open Circuit gas requirement calculations





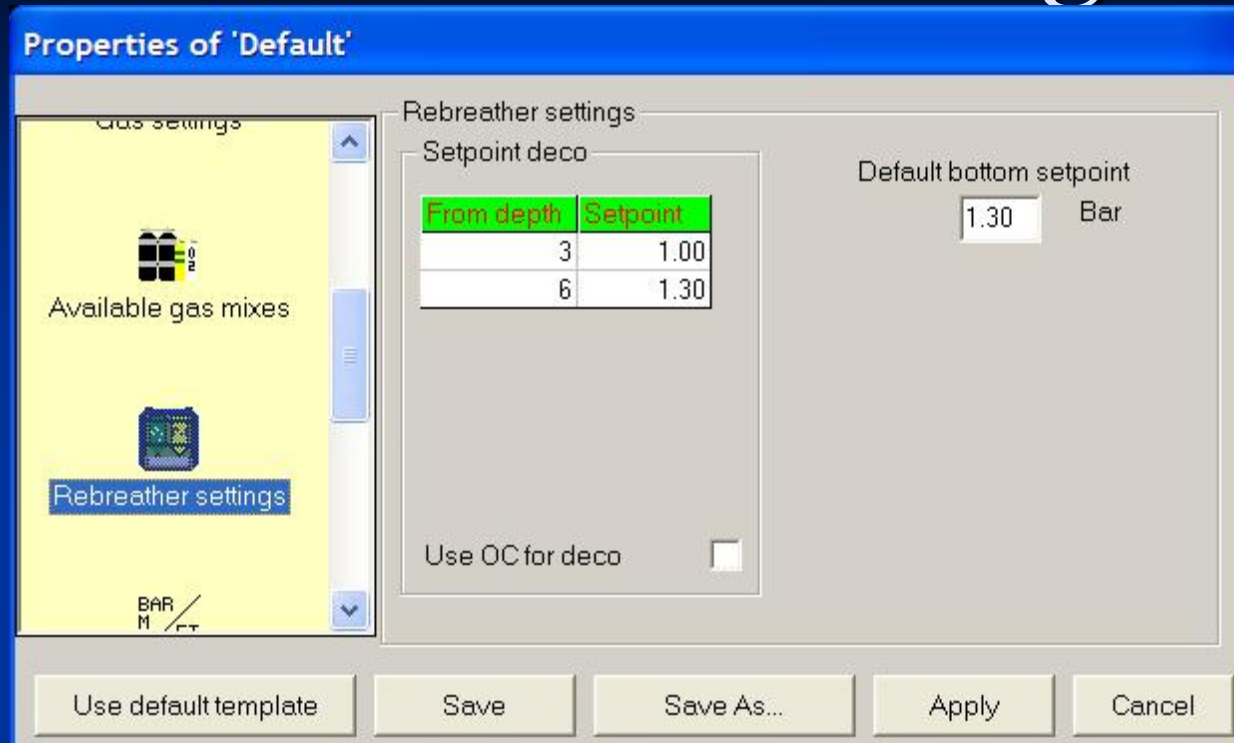
# Available Gas Mixes



- User Defined “Standard” gases
- Sorted by Oxygen Content

(BUG in above screenshot has N<sub>2</sub>/He labels swapped, will be fixed in next release)

# Rebreather Settings



- User Defined Default Set-Point
- Variable Set-Points for Decompression based on Depth
  - Added conservatism on hard to maintain set-points (above 1.3 bar at 6m, and 1.0 bar at 3m)
  - Raising  $PO_2$  during decompression stops
- Open Circuit Decompression for Bailout Calculations

# Units



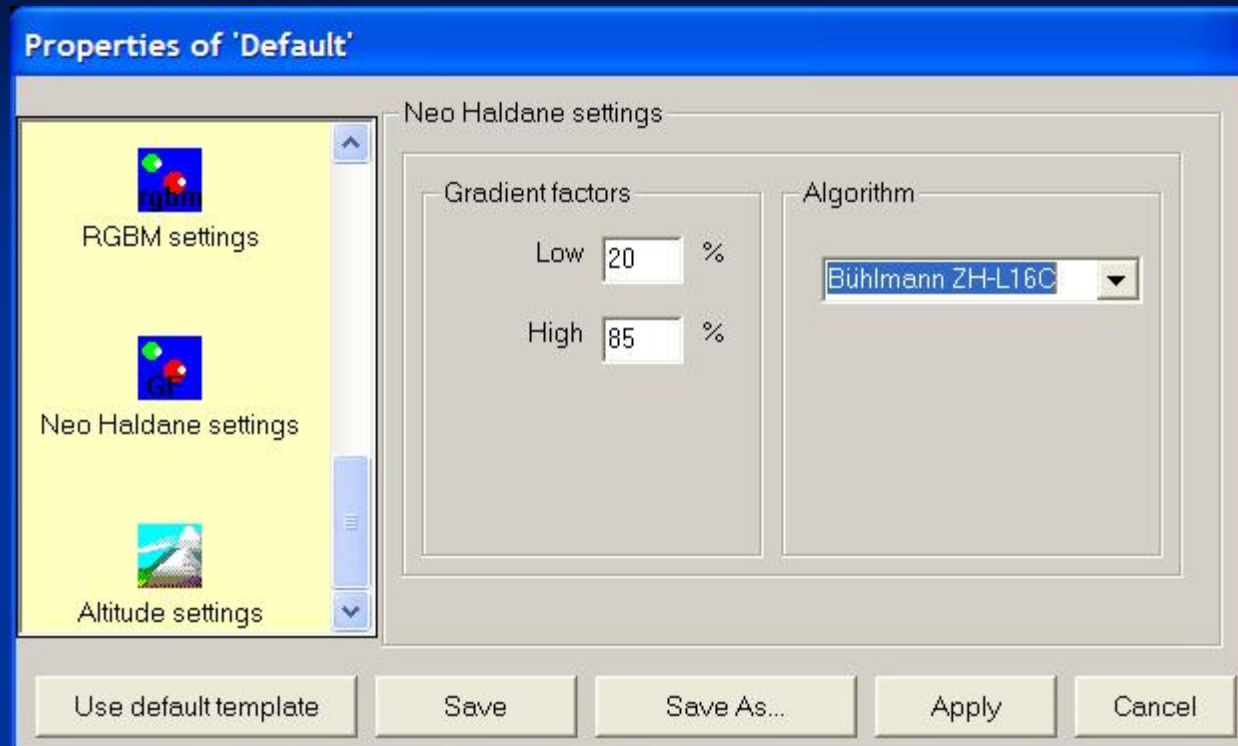
- Dive planning in Metric or Imperial Units

# RGBM Settings



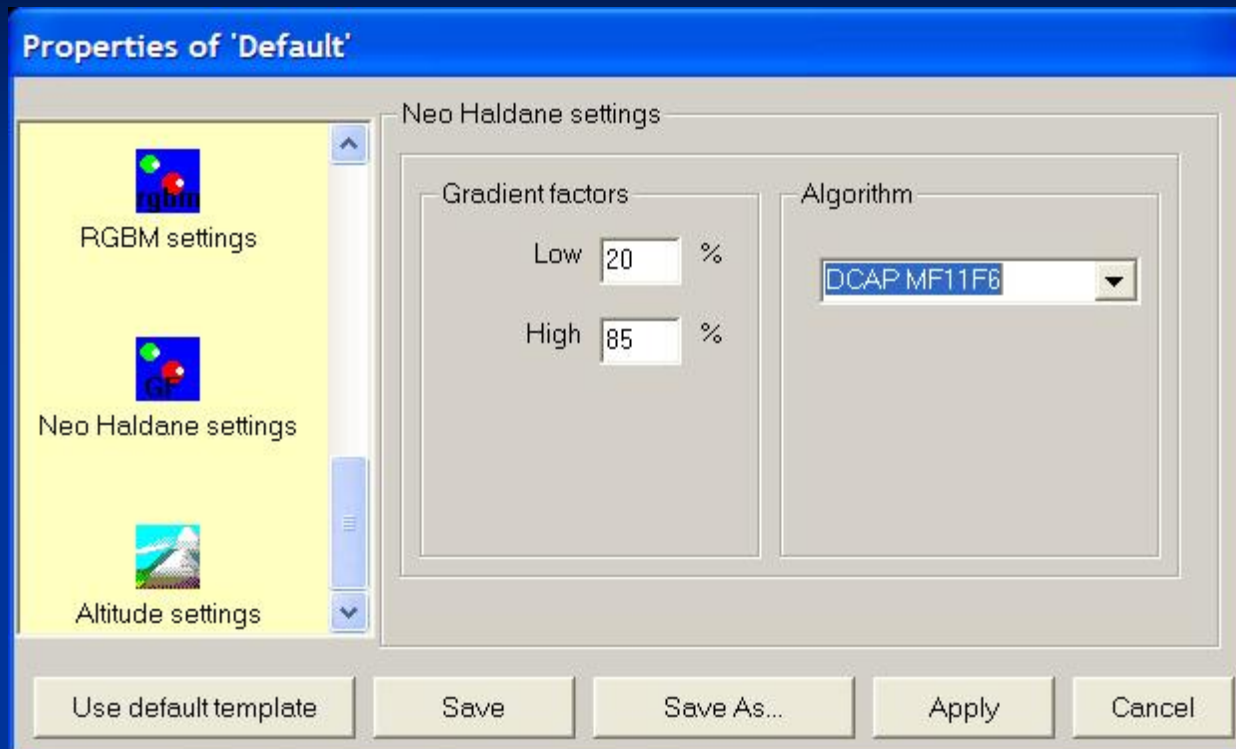
- 5 levels of Conservatism
- Extreme and Aggressive Settings Match Published Tables
- Nominal Setting is the Recommended starting point for warm low workload dives.

# Neo-Haldane Settings ( Bühlmann )



- Gradient Factor - LOW determines Initial Stop Depth
  - Lower value causes deeper initial stop
- Gradient Factor - HIGH determines overall conservatism
  - Higher value reduces overall conservatism
- Selectable ZH-L16B or ZH-L16C M-Values

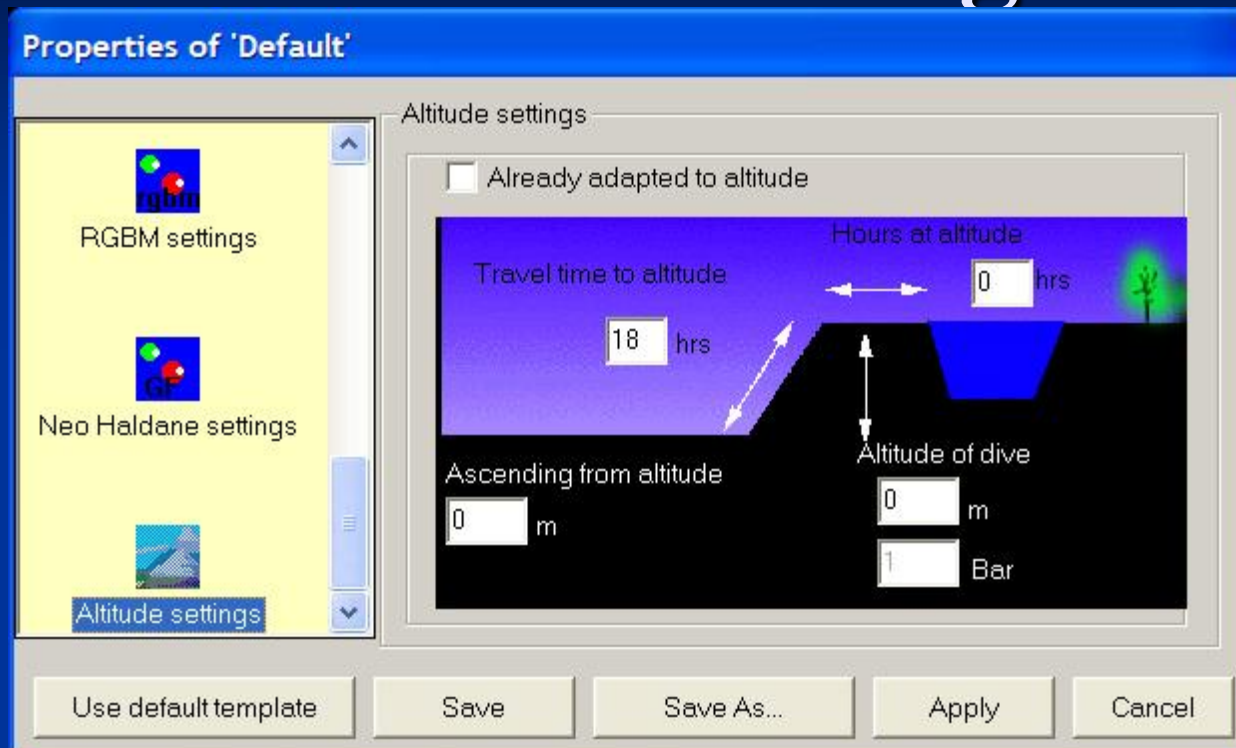
# Neo-Haldane ( DCAP )



- Dissolved Gas model based on DCAP MF11F6 M-values
- Conservatism adjusted by Gradient Factors
- GF-Low 99%, GF-High 100% approximates published tables

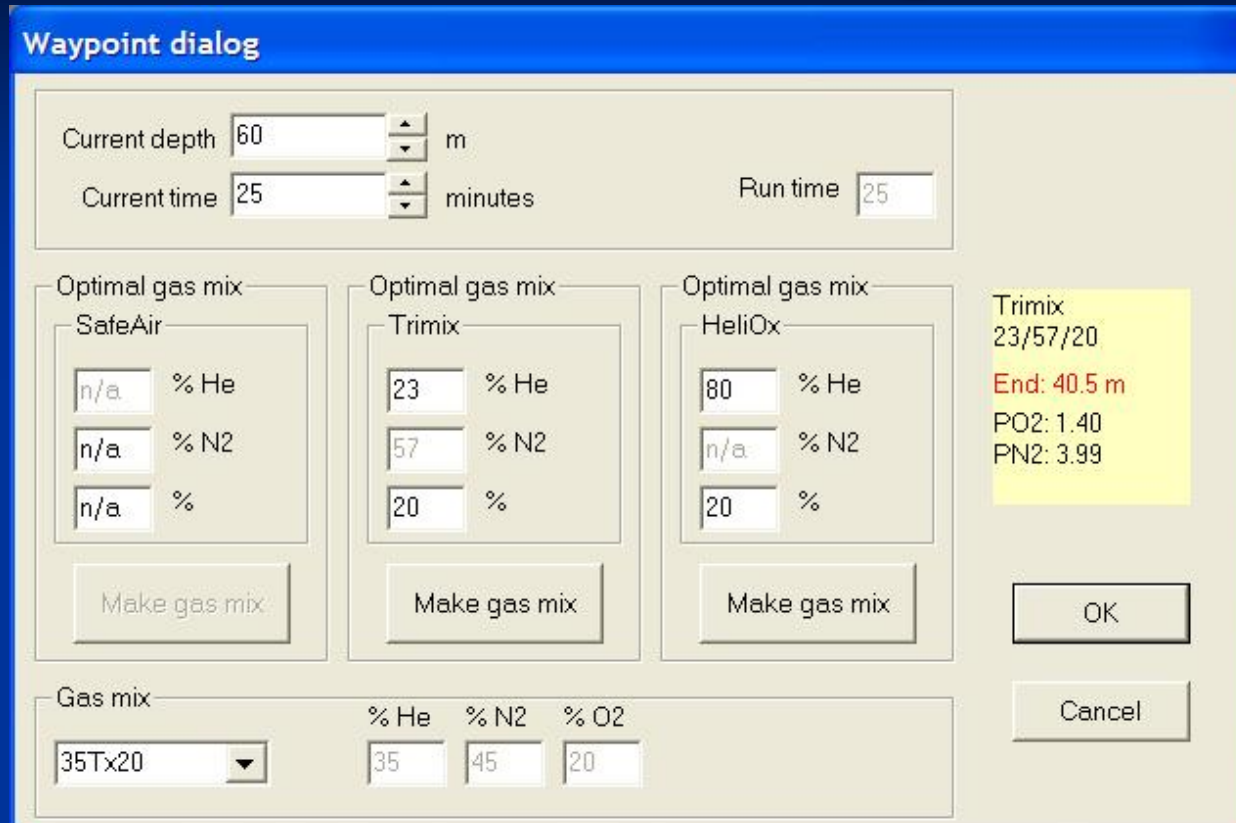


# Altitude Setting



- Used for Dive planning at altitude
- Ability to plan dives regardless of elapsed time at altitude (No adaptation time necessary)

# Way-Point Dialog Box



The screenshot shows a 'Waypoint dialog' window with a blue title bar. It contains several input fields and buttons. At the top, 'Current depth' is set to 60 m and 'Current time' to 25 minutes. A 'Run time' field is also set to 25. Below these are three columns for 'Optimal gas mix' with options 'SafeAir', 'Trimix', and 'HeliOx'. Each column has input fields for '% He', '% N2', and a percentage, along with a 'Make gas mix' button. To the right, a yellow box displays 'Trimix 23/57/20', 'End: 40.5 m' in red, 'PO2: 1.40', and 'PN2: 3.99'. At the bottom, a 'Gas mix' dropdown is set to '35Tx20', with corresponding '% He' (35), '% N2' (45), and '% O2' (20) fields. 'OK' and 'Cancel' buttons are on the right.

Waypoint dialog

Current depth 60 m

Current time 25 minutes

Run time 25

Optimal gas mix

SafeAir

n/a % He

n/a % N2

n/a %

Make gas mix

Optimal gas mix

Trimix

23 % He

57 % N2

20 %

Make gas mix

Optimal gas mix

HeliOx

80 % He

n/a % N2

20 %

Make gas mix

Trimix  
23/57/20  
End: 40.5 m  
PO2: 1.40  
PN2: 3.99

OK

Cancel

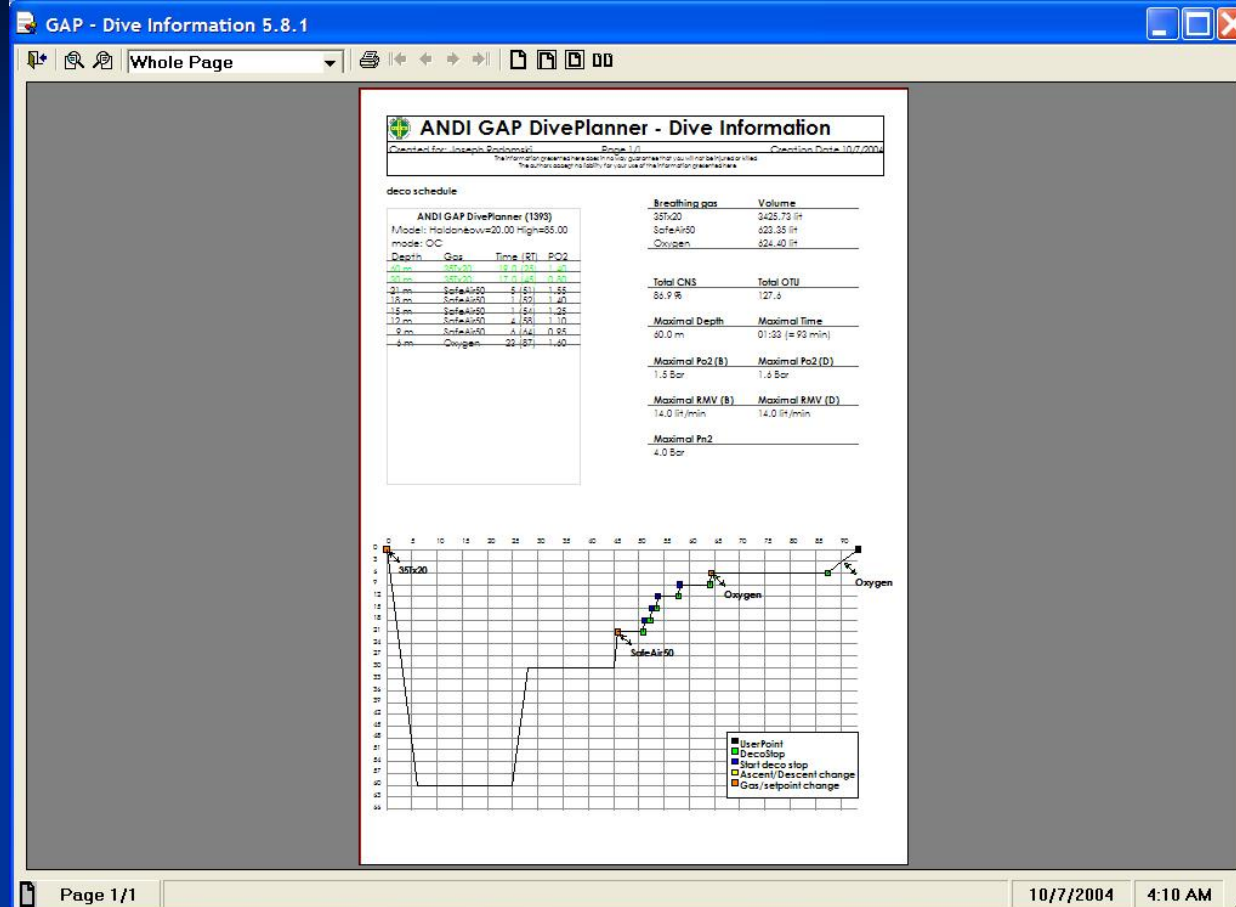
Gas mix

35Tx20

% He 35 % N2 45 % O2 20

- Entry of Segment depth and time  
(includes display of Total Elapsed time)
- Select pre-defined Gases or Automatic gas creation based on  $PO_2$  and Narcotic Settings

# Dive Reports



- 3 Standard Report Formats
  - Normal (Example Above)
  - Long
  - Bail-Out

# Table Expert (Creator)

The screenshot shows the 'Table expert tool' interface. It is divided into several sections:

- template:** Template selected: Default. Includes buttons for 'Load template...', 'Model' (with a gas cylinder icon), 'Units' (with a blue arrow icon), and 'Scuba' (with a scuba mask icon).
- diluent:** A dropdown menu shows 'Oxygen'. To the right are input fields for '% O2' (100), '% He' (0), and '% N2' (0). Below these is a 'Bottom setpoint' of '1' Bar.
- Depth:** Input fields for 'From' (18 m), 'To' (52 m), and 'Step' (3 m).
- Time:** Input fields for 'From' (10 min), 'To' (30 min), and 'Step' (5 min).
- options:** A dropdown menu set to 'Stop & Runtime'.
- Save as HTML:** A preview of an HTML table and a 'Save as HTML' button.
- Save as CSV:** A preview of a CSV file and a 'Save as CSV' button.
- Paper output:** A preview of a printed table and a 'Paper output' button.

At the bottom, there are 'Close' and 'Calculate' buttons, and a 'Progress' bar.

- Tables Based on
  - Template Settings
  - Initial Gas
  - User defined Depth Ranges and Times
- Choice of 3 Output Formats
  - HTML, CSV, or Printed Output

# User Registration

**GAP-Software Product activation-ANDI**

**Enter Username/Serial**

**Current version:** ANDI Mixedgas Rebreather

**Purchase instructions**

To purchase the product goto the website of GAP-Software and purchase one of the products in the GAP-RGBM family.

After processing your order you receive a mail that asks you for the Unique ID number. Email this number to [sales@gap-software.com](mailto:sales@gap-software.com). Upon Receiving your Unique ID. The sales department sends you the name and serial combination

**Unique ID**

1-0002-759F-E0C6-2004-10-07

User name: <Joseph Radomski>

Serial: HW1J9N-QJ7ZNT-7GF0PH-442YCT-H511CX-Y1ECX7-F5B177-RPJZ1X

[where is my username/serial number?](#)

[Buy one online](#)

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- Each install generates an Unique ID
  - to register product (up to 2 registration keys) email user name, product version, retail facility, and Unique ID (specify Desktop/Laptop for each) to [registerandigap@andihq.com](mailto:registerandigap@andihq.com)
  - Key requests for 2nd computer must be submitted with original registration.
- 14 Day evaluation Period – Freely Distribute
- Registration Serial determines active features

For product support, Bug reports and feature requests.....

Send an Email to:

[joeradomski@andihq.com](mailto:joeradomski@andihq.com)