

O2k Info

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Updates: http://wiki.oroboros.at/index.php/MiPNet21.16_DatLab_7



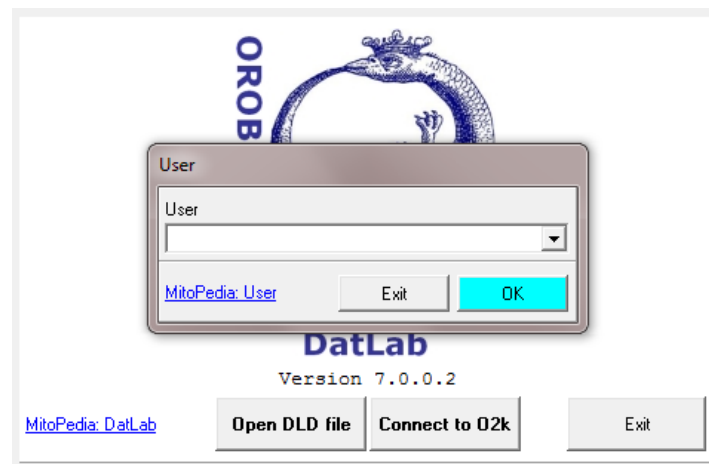
DatLab 7: innovations

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1. General

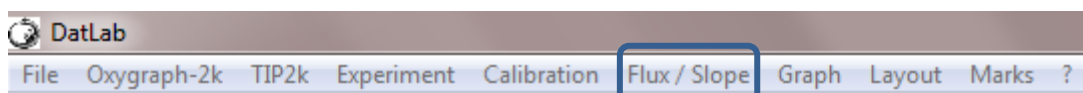
- 1.1. User:** For better documentation and traceability, a username has to be entered after starting DatLab. The current user is displayed in the O2k signal line and usernames are connected with personal graph layouts (see Layout-section).



Change user: When DatLab is already running, the user can be changed under [File/Change user].

Manage users: Existing users can be renamed and deleted (with all connected graph layouts) under [File/Manage users].

- 1.2. Menu:** New, user-friendly structure of menus: [Flux/Slope] as a separate menu with new features (see Flux/Slope section).



1.3. Hyperlinks in DatLab windows: In many DatLab windows, a help-link to the Bioblast website has been added, for explanations and instructions about the according terms and functions.

1.4. Event names: Event names are shown on top of the graph to avoid text overlaps with mark names.

1.5. Illumination: "Light" has been renamed to "Illumination" to distinguish it from the LED light introduced into the chambers for the purpose of spectrophotometric and fluorometric measurements.

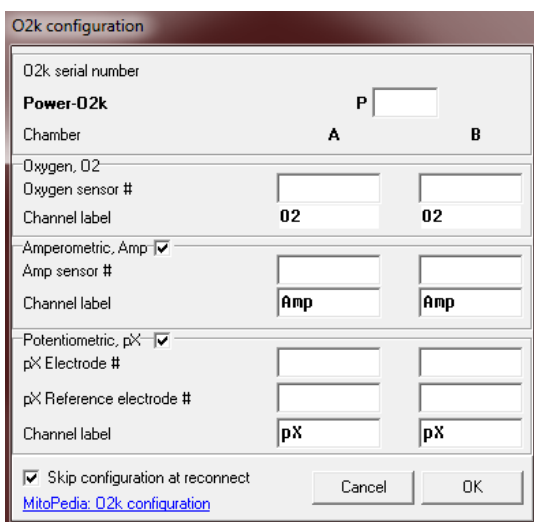
2. Oxygraph-2k

In the Oxygraph-2k menu, the "Show channel"-functions have been moved and an additional submenu [O2k configuration] added for a better overview.

Oxygraph-2k	TIP2k	Experiment
O2k control		F7
O2k configuration		
Stirrer A on/off		F11
Stirrer B on/off		F12
Stirrer test		F9
Illumination on/off		F10
Manage setups		

2.1. Data recording interval: The data recording interval can no longer be changed when the O2k is running. It has to be set when the O2k control window pops up at the beginning of an experiment.

2.2. O2k configuration window:



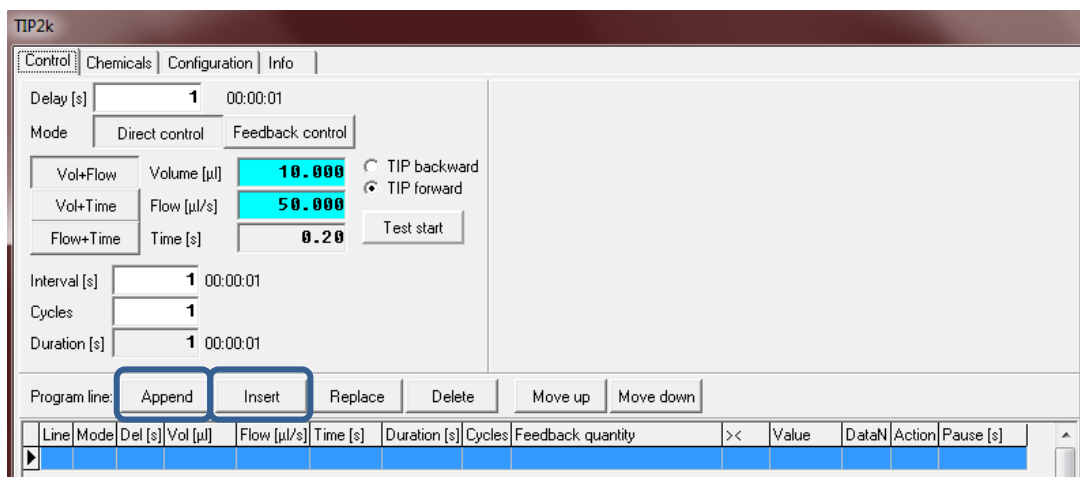
In [O2k configuration], channels (amperometric and potentiometric) can be switched on/off by selecting the according tick box.

Power-O2k and numbers for Oxygen sensor, Amp sensor, pX Electrode and pX Reference electrode have to be entered and edited in the mask shown on the left. They can still be found in [O2k control], but can no longer be edited there.

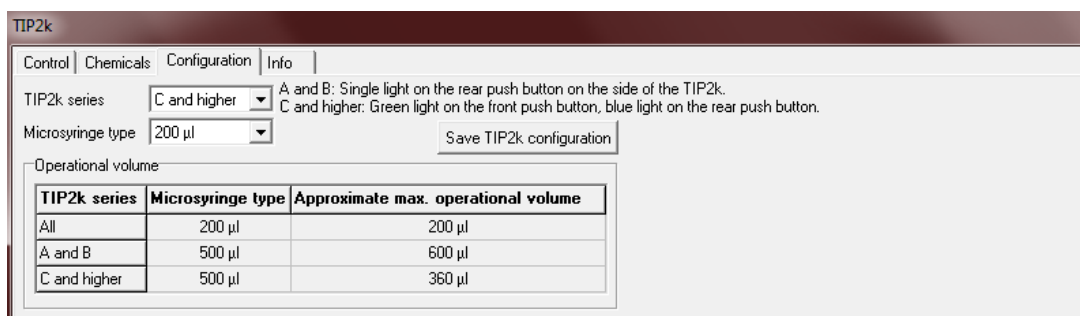
The O2k configuration window will pop up automatically after connecting with the O2k. If the tick box "Skip configuration at reconnect" is selected, this window will not pop up when reconnecting with the O2k.

3. TIP2k

3.1. Insert/Append Button: A new button “Append” has been added for more user-friendly programming of the TIP2k. “Append” adds the new line at the bottom of the program, whereas “Insert” adds it at the selected position.



3.2. TIP2k configuration: Adjustments to “Configuration” were done to accommodate the TIP2k series and Microsyringe type. By providing this information, DatLab is able to check the total volume programmed in the “Control” window and warn the user if the approximate maximum operation volume is exceeded.



4. Experiment

4.1. Edit experiment window:

The “Edit experiment” window has been complemented with the following boxes:

- File recorded by (automatically filled)
- Protocol: SUIT protocol’s name
- Sample type: renamed from “Sample”
- Cohort
- Sample code
- Sample number
- Subsample number

Protocol and sample number are shown next to the graph (right side) above the displayed channel names.

A double-click on the Protocol name or sample number will open the “Edit experiment” window.

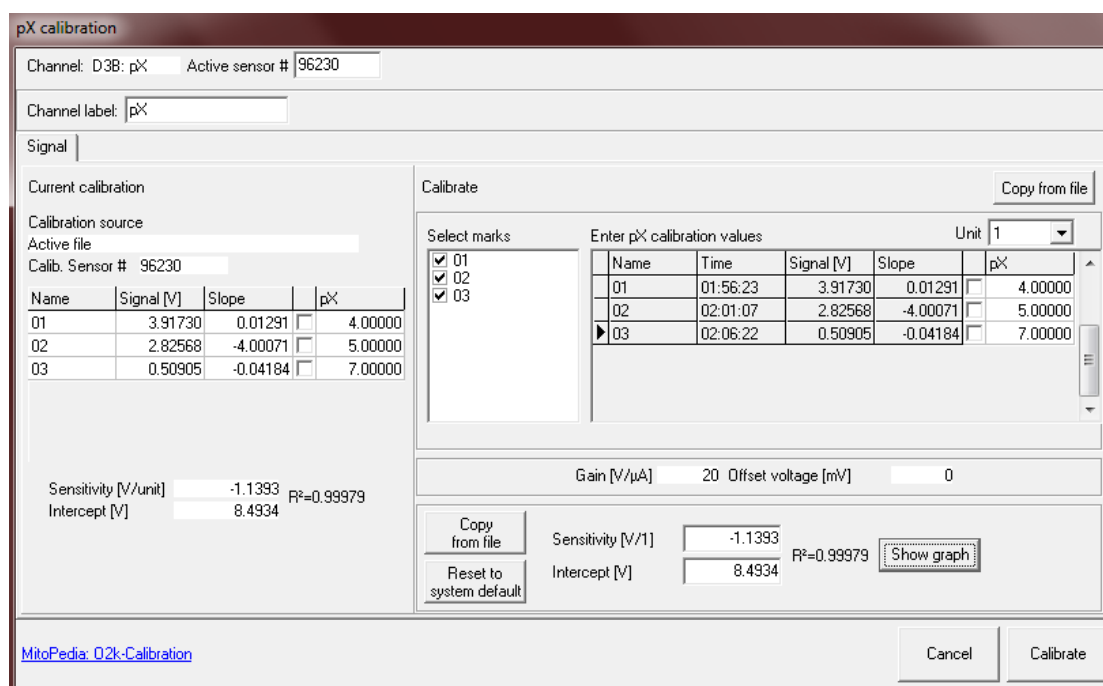


4.2. Experimental log: The “View protocol” window has been renamed to “Experimental log”.

5. Calibration

5.1. Calibration of pX channel:

- The pX calibration window has been changed to allow multipoint calibration, similar to the Amp calibration window.
- Units for the calibrated pX signal and pX slope were updated.



6. Flux/Slope

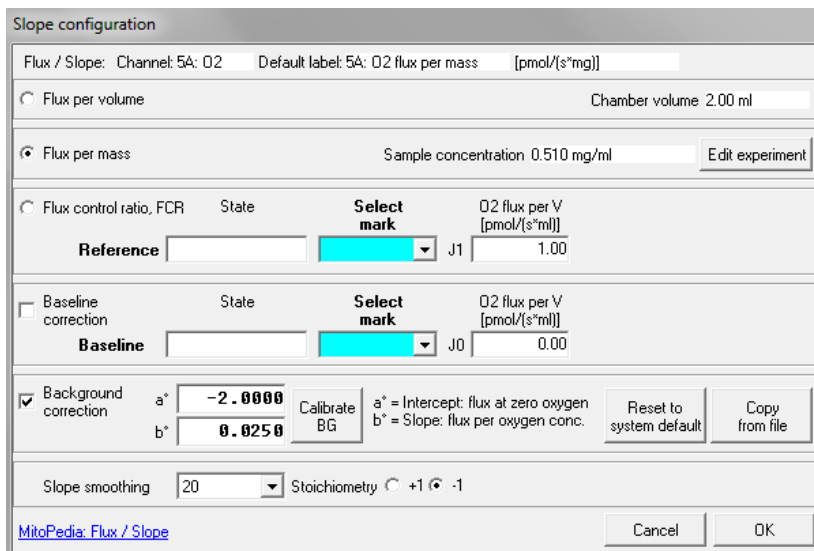
The following features of the previous [Calibration] window (Tab: Slope) have been moved to Flux/Slope:

- Flux Control Ratio (FCR)
- Baseline Correction
- Background Correction

These features are applied by selecting the according tick box or radio button.

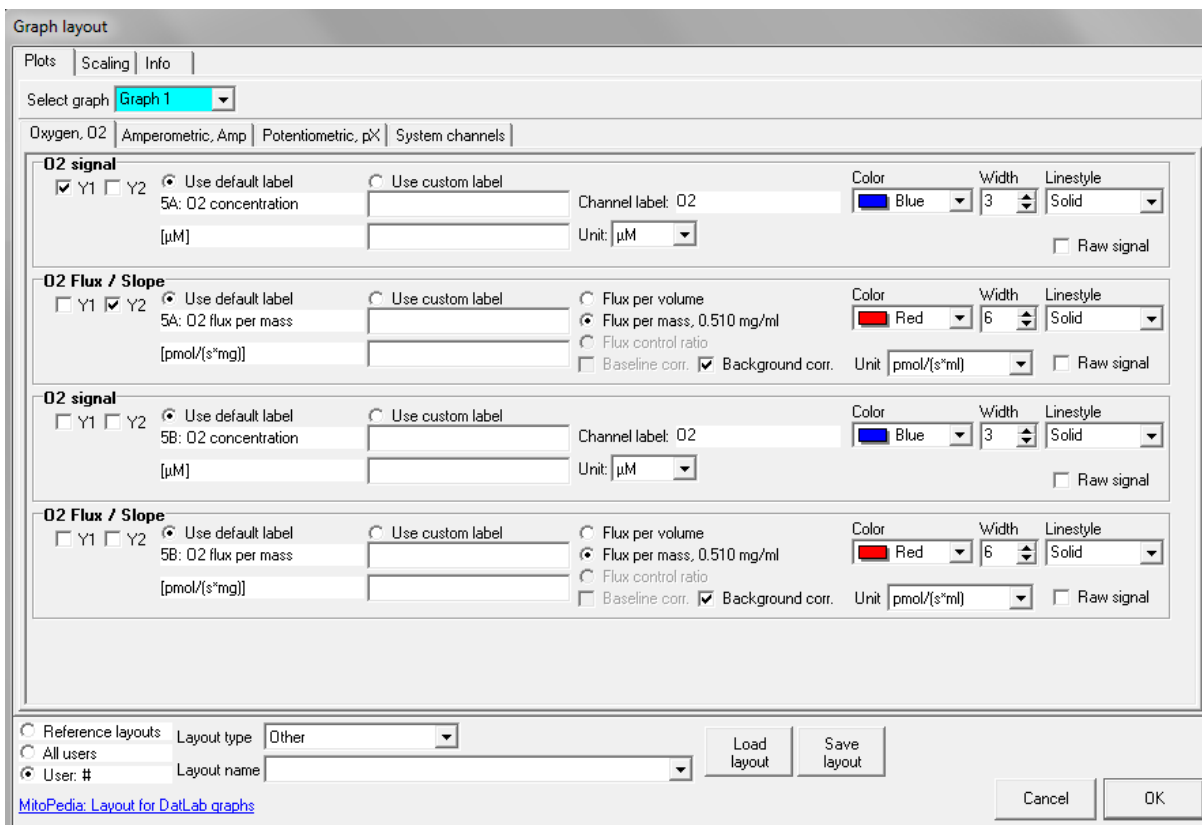
For each channel, a separate window is provided. The following functions have been added to each mask:

- Selection and switch between "Flux per volume", "Flux per mass" or "Flux control ratio, FCR" is possible. The default label and unit change automatically as a result of this selection.
- Stoichiometry: default: -1 for O2 and +1 for Amp and pX



7. Graph

7.1. [Select plots] – Graph layout: The [Select plots] window has been restructured and renamed to “Graph layout” in DatLab 7 to ensure a more user-friendly window:



Channels are separated in different tabs. For each graph, plots are selected with tick boxes. The axis labels are changed automatically,

according to the channel and unit. Signal units in [Select plots] window are independent of the units used for calibration.

To display the raw signal, the tick box on the right side of the according channel has to be selected.

7.2. Custom label: In DatLab 7, users have the possibility to change the axis labels in [Graph/Select plots]. Two lines are available for entering a name and the according unit.

8. Layout

8.1. Layout structure: A new hierarchy for DatLab graph layouts has been implemented:

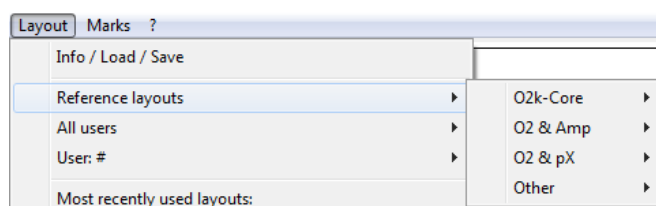
Layout categories

- Reference layouts
- All users
- User: #

Reference layouts are provided with the installation package of DatLab 7. They cannot be changed or deleted, but it is possible to edit a reference layout and save it under a new name. Layouts saved in "All users" can be used and edited by all users. Personal layouts (saved in "User: #") can only be accessed by the according user.

For every layout category mentioned above, the following layout types are provided:

- O2k-Core
- O2 & Amp
- O2 & pX
- Other



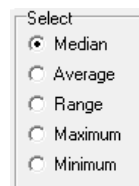
8.2. Most recently used layouts: The last five layouts used are displayed in the menu [Layout].

9. Marks

9.1. Mark statistics – "Copy to clipboard" options: In addition to the mark information, experimental details are copied to clipboard as default. In order to use older versions of our DatLab Excel templates, this function can be switched off by deselecting the tick box "Experimental details". Furthermore, the slope values are exported

as the slope negative for traceability. To copy the current values (e.g. flux per mass), the tick box "Traceability in DatLab-Excel templates" has to be deselected.

9.2. Mark statistics – exporting median: Instead of exporting the averages of marks, the median is exported in DatLab 7 as default. Furthermore, **Range** was added as an additional export-option.



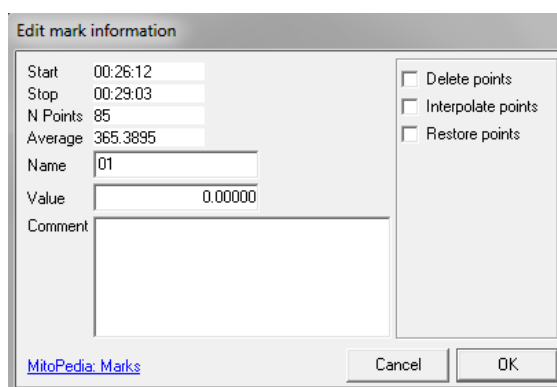
Select

- Median
- Average
- Range
- Maximum
- Minimum

9.3. Edit mark information window: This window has been complemented with three new functions (opened by a click on the mark bar):

- Delete points: Deletes all data points in the plot within the selected mark frame.
- Interpolate points: Interpolates all data points in the plot within the selected mark frame.
- Restore points: Reverses all data points in the plot if they have been previously deleted or interpolated.

These functions are applied by selecting the according tick box and pressing the button "OK".



Edit mark information

Start	00:26:12	<input type="checkbox"/> Delete points
Stop	00:29:03	<input type="checkbox"/> Interpolate points
N Points	85	<input type="checkbox"/> Restore points
Average	365.3895	
Name	01	
Value	0.00000	
Comment		

MitoPedia: Marks

Cancel OK

