

Basic tutorial for FURTHRmind



Select Unit



Unit is important in FURTHRmind since calculation is based on them.

Therefore, we need to select the correct unit for each field.



Select Unit

The screenshot shows the FURTHRmind software interface. At the top, there is a browser window with the address bar showing 'Projects / Topics Tutorial' and the email 'daniel.menne@furthr-research.com'. The main interface has three tabs: 'Dashboard', 'Comparison', and 'Convergece Inspector'. The 'Groups / Samples' panel on the left contains a search bar, radio buttons for 'Groups' (selected) and 'Samples', and a list of items under 'Tutorial': 'All experiment' and 'Exp without sample'. Below this list are several input fields: 'Layer Number:', 'Time:', 'Concentration:', 'Explanation:', and 'Add new field:'. A blue arrow points to the 'Time:' field. The central 'Experiments' area is a large white space with a blue border and a large grey plus sign in the center. The right side of the interface has a 'Diagrams' section with a search bar and a 'Comment:' field, and a 'Raw data' section with two empty columns.

First, we select unit for Time.
Click on the combo box next
to the field "Time"



Select Unit



The screenshot shows the FURTHRmind software interface. A dropdown menu is open, listing various units. The unit 's (second)' is highlighted in blue, and a blue arrow points to it from the left. The interface includes a top navigation bar with 'Projects / Topics' set to 'Tutorial' and a user profile 'daniel.menne@furthr-research.com'. The main content area is titled 'Experiments' and contains a large blue-bordered box with a grey plus sign. On the right, there are sections for 'Diagrams' and 'Raw data'. The left sidebar contains a 'Groups' section with a search bar and a list of groups, including 'Tutorial' which is selected. Below the groups are input fields for 'Layer Number:', 'Time:', 'Concentration:', and 'Explanation:', along with an 'Add new field:' section.

Units listed in the dropdown menu:

- nT (nanotesla)
- nV (nanovolt)
- nW (nanowatt)
- ohm (ohm)
- Pa (pascal)
- pA (picoampere)
- pF (picofarad)
- pg (picogram)
- pJ (picojoule)
- pL (picoliter)
- pm (picometer)
- pM (picomolar)
- pmol (picomole)
- pN (piconewton)
- psi (pound per square inch)
- pW (picowatt)
- s (second)**
- S (siemens)
- T (tesla)
- t (ton)
- TeV (terra electron volt)
- torr (torr)
- TV (terravolt)
- TW (terrawatt)
- uA (microampere)
- uC (microcoulomb)
- uF (microfarad)
- uG (microgauss)
- ug (microgram)
- uH (microhenry)
- uJ (micorjoule)
- uL (microliter)
- um (micrometer)
- uM (micromolar)
- umol (micromole)
- uN (micronewton)
- us (microsecond)
- uS (microsiemens)
- uT (microtesla)
- uW (microwatt)
- V (volt)
- W (watt)
- week ()
- Wh (watthour)
- year ()
- °C (degree celcius)

Select "s (second)".

(Of course, this is subject to change)



Select Unit

The screenshot displays the FURTHRmind software interface. At the top, the title bar shows 'FURTHRmind' and 'Projects / Topics Tutorial'. The main window is divided into three panels: 'Groups / Samples', 'Experiments', and 'Diagrams'. The 'Groups / Samples' panel on the left contains a search bar, radio buttons for 'Groups' and 'Samples', and a list of items including 'Tutorial', 'All experiment', and 'Exp without sample'. Below this list are several configuration fields: 'Layer Number', 'Time', 'Concentration', 'Explanation', and 'Add new field'. The 'Time' field is highlighted with an orange border and shows a dropdown menu with 's (second)' selected. The 'Experiments' panel in the center features a large blue rectangular box with a grey plus sign inside. The 'Diagrams' panel on the right includes a comment box and a 'Raw data' section.

As shown, the unit “second”
is assigned to “Time”

Create Unit



What if the unit I want to use is not in the predefined list?
You can create your own unit and save it in the system!!



Create Unit



The screenshot shows the FURTHRmind software interface. At the top, the title bar reads 'FURTHRmind' and 'Projects / Topics Tutorial'. Below the title bar, there are tabs for 'Dashboard', 'Comparison', and 'Convergence Inspector'. The main area is divided into three panels: 'Groups / Samples', 'Experiments', and 'Diagrams'. The 'Groups / Samples' panel on the left has a search bar and radio buttons for 'Groups' (selected) and 'Samples'. Below this, a list shows 'Tutorial' expanded to include 'All experiment' and 'Exp without sample'. At the bottom of this panel, there are dropdown menus for 'Layer Number:', 'Time:' (set to 's (second)'), 'Concentration:', and 'Explanation:'. A blue arrow points to the 'Concentration:' dropdown. The 'Experiments' panel in the center contains a large blue rectangular box with a grey plus sign inside. The 'Diagrams' panel on the right has a 'Comment:' text box and a 'Raw data' section with two empty columns.

For example, the unit for concentration (mol/L) is not a default unit.
Click on the menu bar of "Concentration"



Create Unit



Select "Add unit"

The screenshot shows the FURTHRmind software interface. At the top, the browser address bar displays 'Projects / Topics Tutorial'. The main interface is divided into several panels:

- Groups / Samples:** Located on the left, it contains a search bar, radio buttons for 'Groups' (selected) and 'Samples', and a list of items under 'Tutorial', including 'All experiment' and 'Exp without sample'. Below this are fields for 'Layer Number', 'Time' (set to 's (second)'), 'Concentration', and 'Explanation'.
- Experiments:** The central panel, which is currently empty except for a large grey plus sign in the center, indicating where to click to add a new unit.
- Diagrams:** Located on the right, it features a large empty box with left and right navigation arrows and a 'Comment:' field below it.
- Raw data:** At the bottom right, it shows two empty columns for data.

A context menu is open over the 'Add unit' option in the 'Groups / Samples' panel. The menu items are: 'Add unit' (highlighted in blue), 'Manage units', 'move up', 'move down', 'remove', and 'Rename field'. A blue arrow points from the text 'Select "Add unit"' to the 'Add unit' option in the menu.

Create Unit



The screenshot shows the FURTHRmind software interface. At the top, the title bar reads 'FURTHRmind' and the current project is 'Tutorial'. The main window is divided into three panels: 'Groups / Samples' on the left, 'Experiments' in the center, and 'Diagrams' on the right. The 'Groups / Samples' panel has a search bar and a list of groups, with 'Tutorial' selected. Below the list are fields for 'Layer Number:', 'Time:', 'Concentration:', 'Explanation:', and 'Add new field:'. The 'Experiments' panel is mostly empty, with a blue rectangular box highlighting a central area. A dialog box titled 'Form - FURTHRmind' is open in the center, containing two text input fields: 'Short name:' with the value 'mol/l' and 'Long name:' with the value 'mole per liter'. The dialog has 'Cancel' and 'Ok' buttons. The 'Diagrams' panel on the right has a 'Comment:' field and a 'Raw data' section.

Enter the short name and the long name of the unit (This can be arbitrary, just for your convenience)



Create Unit



FURTHRmind

Projects / Topics Tutorial

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Dashboard Comparison Convergece Inspector

Groups / Samples

Search:

Groups Samples

Tutorial

- All experiment
- Exp without sample

Layer Number:

Time:

Concentration:

Explanation:

Add new field:

Experiments

Diagrams

Raw data

Form - FURTHRmind

Short name: mol/l

Long name: mole per liter

Cancel OK

Click "OK"



Create Unit



The screenshot shows the FURTHRmind software interface. The main window is titled 'Projects / Topics Tutorial'. The 'Manage units - FURTHRmind' dialog box is open, displaying the following fields:

- Self defined units:** mol/l (mole per liter)
- Short name:** mol/l
- Long name:** mole per liter
- Unit definition:** (empty text area)

A list of 'All units' is shown on the left side of the dialog box, including:

- A (ampere)
- Ah (ampere hour)
- amu (atomic mass unit)
- Ang (angstrom)
- atm (atmosphere)
- bar (bar)
- C (coulomb)
- cal (calorie)
- cm (centimeter)
- Da (dalton)
- day ()
- eV (electron volt)
- F (farad)
- fA (femtoampere)

The 'Add' button is highlighted with a blue arrow. The background interface shows the 'Groups / Samples' section with a search bar and a list of items under 'Tutorial'. The 'Experiments' section is empty. The 'Diagrams' section has a search bar and a list of items. The 'Raw data' section has a search bar and a list of items.

In "Unit definition", we have to tell the system what the unit actually is. (In this example is mol/L)



Create Unit



The screenshot shows the FURTHRmind software interface. The main window is titled 'Projects / Topics Tutorial'. The 'Experiments' section is active, showing a search bar and a list of units. A dialog box titled 'Manage units - FURTHRmind' is open, allowing the user to define a new unit. The 'Unit definition' field contains the text 'mol/L' in green. The 'All units' list includes various units like 'A (ampere)', 'Ah (ampere hour)', 'amu (atomic mass unit)', etc. The background shows the 'Experiments' section of the software with a search bar and a list of units.

As you type the formula of the unit, if the typed unit is already recognized by the system, it will automatically be shown in green (in this example, both “mol” and “L” are default units, therefore they are both green). Otherwise the unit will be shown in red



Create Unit



The screenshot shows the FURTHRmind software interface. At the top, the title bar reads 'FURTHRmind' and the window title is 'Projects / Topics Tutorial'. The main interface is divided into several panels: 'Groups / Samples' on the left, 'Experiments' in the center, 'Diagrams' on the right, and 'Raw data' at the bottom right. A 'Manage units - FURTHRmind' dialog box is open in the center, allowing the user to define a new unit. The dialog box contains the following fields and options:

- Self defined units:** A list box containing 'mol/l (mole per liter)'. Below it is an 'Add' button.
- All units:** A scrollable list of standard units including A (ampere), Ah (ampere hour), amu (atomic mass unit), Ang (angstrom), atm (atmosphere), bar (bar), C (coulomb), cal (calorie), cm (centimeter), Da (dalton), day (), eV (electron volt), F (farad), and fA (femtoampere).
- Short name:** A text input field containing 'mol/l'.
- Long name:** A text input field containing 'mole per liter'.
- Unit definition:** A text input field containing 'mol/l'.
- Comment:** A text input field.
- Close:** A button at the bottom right of the dialog box.

Below the dialog box, there are several input fields for 'Layer Number:', 'Time:', 'Concentration:', and 'Explanation:', each with a dropdown menu and a blue arrow icon. At the bottom left, there is an 'Add new field:' section with a dropdown menu and a blue arrow icon.

Click on "Close" to finish



Create Unit



As shown, the new unit
"mol/l is added in the system"

The screenshot shows the FURTHRmind software interface. On the left, a sidebar contains a 'Groups' section with a search bar and a list of groups, including 'Tutorial'. Below this are input fields for 'Layer Number:', 'Time:', 'Concentration:', and 'Explanation:', followed by an 'Add new field:' section. A dropdown menu is open, displaying a list of units. The unit 'mol/l (mole per liter)' is highlighted in blue. A blue arrow points from this unit to the 'Experiments' section of the main interface. The 'Experiments' section features a large, light gray box with a prominent plus sign (+) in the center. To the right of the 'Experiments' section are two panels: 'Diagrams' and 'Raw data'. The 'Diagrams' panel has a comment field and navigation arrows. The 'Raw data' panel is currently empty.

Units listed in the dropdown menu:

- kohm (kiloohm)
- kPa (kilopascal)
- kV (kilovolt)
- kW (kilowatt)
- kWh (kilowatt hour)
- L (liter)
- L/h (Liter per hour)
- lbf (pound force)
- lbm (pound)
- LMH (Liter per hour and square met
- LMH/bar (LMH per bar)
- m (meter)
- M (molar (mol/L))
- mA (milliampere)
- mAh (milli ampere hour)
- Mbar (megabar)
- mbar (millibar)
- mC (millicoulomb)
- MeV (mega electron volt)
- meV (mili electron volt)
- mG (milligauss)
- mg (milligram)
- mH (millihenry)
- MHz (megahertz)
- mHz (millihertz)
- mi (mile)
- min (minute)
- MJ (megajoule)
- mJ (millijoule)
- ML (megaliter)
- mL (milliliter)
- mm (millimeter)
- mM (millimolar)
- mmol (millimole)
- MN (meganewton)
- mN (millinewton)
- Mohm (megaohm)
- mohm (milliohm)
- mol (mole)
- mol/l (mole per liter)
- MPa (megapascal)
- ms (millisecond)
- mS (millisiemens)
- mT (millitesla)
- mtorr (millitorr)
- MV (megavolt)

