



# SeaDataNet

NEMO 2.0 – New functions of the data  
file converter to SeaDataNet formats

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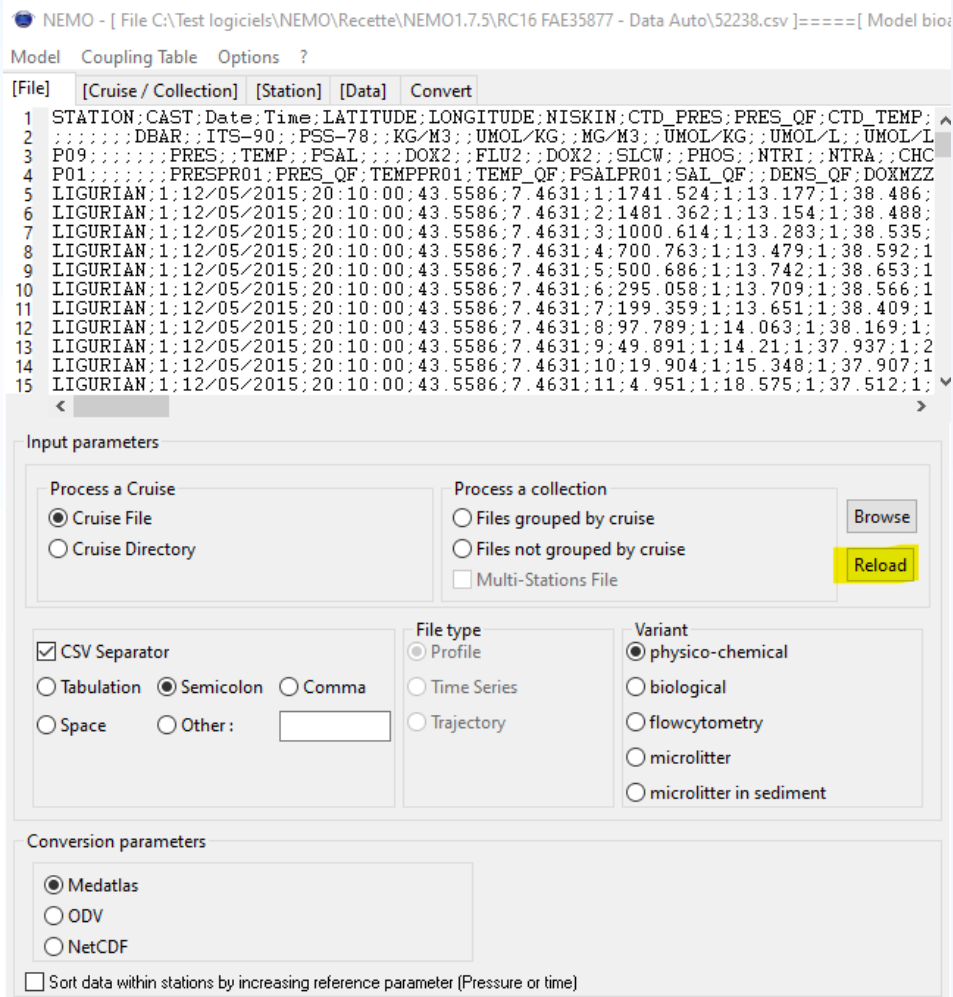
## NEMO 2.0 main objectives

- Make life easier for user by
  - Giving the possibility to **group actions** in the Data tab
  - **Automating the filling** of the Data tab where possible
  - Create clear **different process** for CSV files with separators and TEXT files without separators.
- Increase the amount of metadata in the CDI-Summary file
- Assist the user in the wrnting of batch commands

## General changes

- **Help** tab at the bottom of the main screen removed
  - Replaced by access to the user manual in the '?'
- Menu **Right-click** search function removed
  - Replaced by a Search window for fields with a list of values
- Use of mouse wheel no longer results in changing values in already entered fields (like in Station tab for example)
- Display of line numbers in input file preview (except data tab if CSV file)

# Changes on the File tab (1)



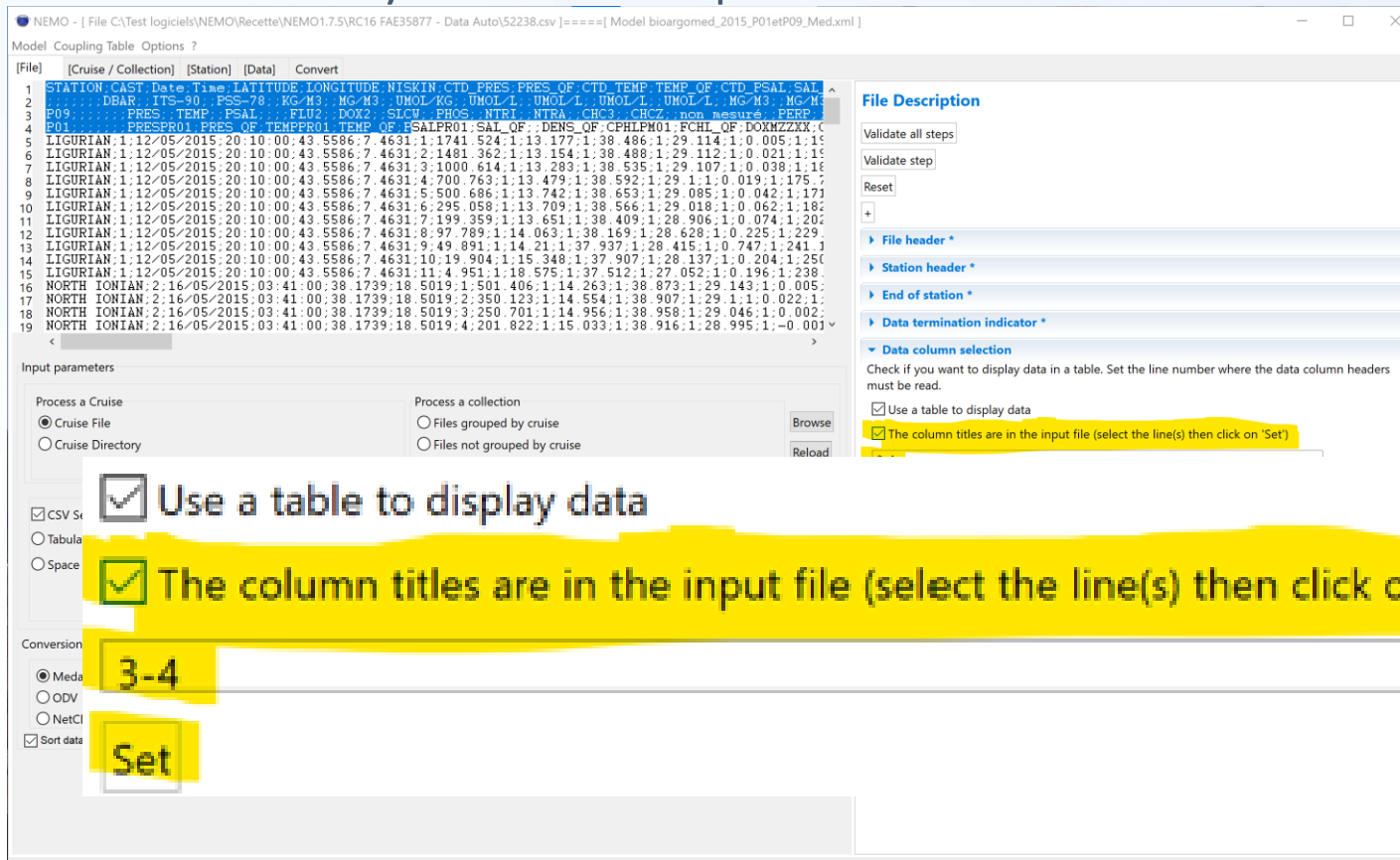
The screenshot shows the NEMO software interface. At the top, the title bar reads "NEMO - [ File C:\Test logiciens\NEMO\Recette\NEMO1.7.5\RC16 FAE35877 - Data Auto\52238.csv ]===== [ Model bio...". Below the title bar is a menu bar with "Model", "Coupling Table", and "Options ?". The main window is divided into several sections:

- [File] [Cruise / Collection] [Station] [Data] Convert**: A list of data rows with columns for station, date, time, latitude, longitude, and various parameters. The first few rows are:
  - 1 STATION:CAST;Date;Time;LATITUDE;LONGITUDE;NISKIN;CTD\_PRES;PRES\_QF;CTD\_TEMP;
  - 2 ;;;DBAR;ITS-90;PSS-78;KG/M3;UMOL/KG;MG/M3;UMOL/KG;UMOL/L;UMOL/L
  - 3 P09;PRES;TEMP;PSAL;DOX2;FLU2;DOX2;SLCW;PHOS;NTRI;NTRA;CHC
  - 4 P01;PRESPR01;PRES\_QF;TEMPPR01;TEMP\_QF;PSALPR01;SAL\_QF;DENS\_QF;DOXMZZ
- Input parameters**:
  - Process a Cruise**:  Cruise File,  Cruise Directory
  - Process a collection**:  Files grouped by cruise,  Files not grouped by cruise,  Multi-Stations File. A **Reload** button is highlighted in yellow.
  - File type**:  Profile,  Time Series,  Trajectory
  - Variant**:  physico-chemical,  biological,  flowcytometry,  microlitter,  microlitter in sediment
  - CSV Separator**:  CSV Separator,  Tabulation,  Semicolon,  Comma,  Space,  Other: [ ]
- Conversion parameters**:  Medatlas,  ODV,  NetCDF. A checkbox for "Sort data within stations by increasing reference parameter (Pressure or time)" is also present.

Reload button added:  
Allows to reload the file after modifications without changing the template and without resetting all

# Changes on the File tab (2)

- Changes in Data column selection for CSV files
  - Ability to enter multiple rows



The screenshot shows the 'File Description' tab in the NEMO software. The 'Data column selection' section is highlighted in yellow and contains the following options:

- Use a table to display data
- The column titles are in the input file (select the line(s) then click on 'Set')

The 'Input parameters' section shows 'Process a Cruise' with 'Cruise File' selected. The 'Conversion' section shows '3-4' in a text box and 'Set' in a button.

**Goal**  
See more info in the data tab, in the column headings

## Changes on the **File tab** (3)

- Changes in Data column selection for CSV files
  - allows for example to display the units if available in the input file

NEMO - [ File C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC16 FAE35877 - Data Auto\52238.csv ]===== [ Model bioargomed\_2015\_P09.xml ]

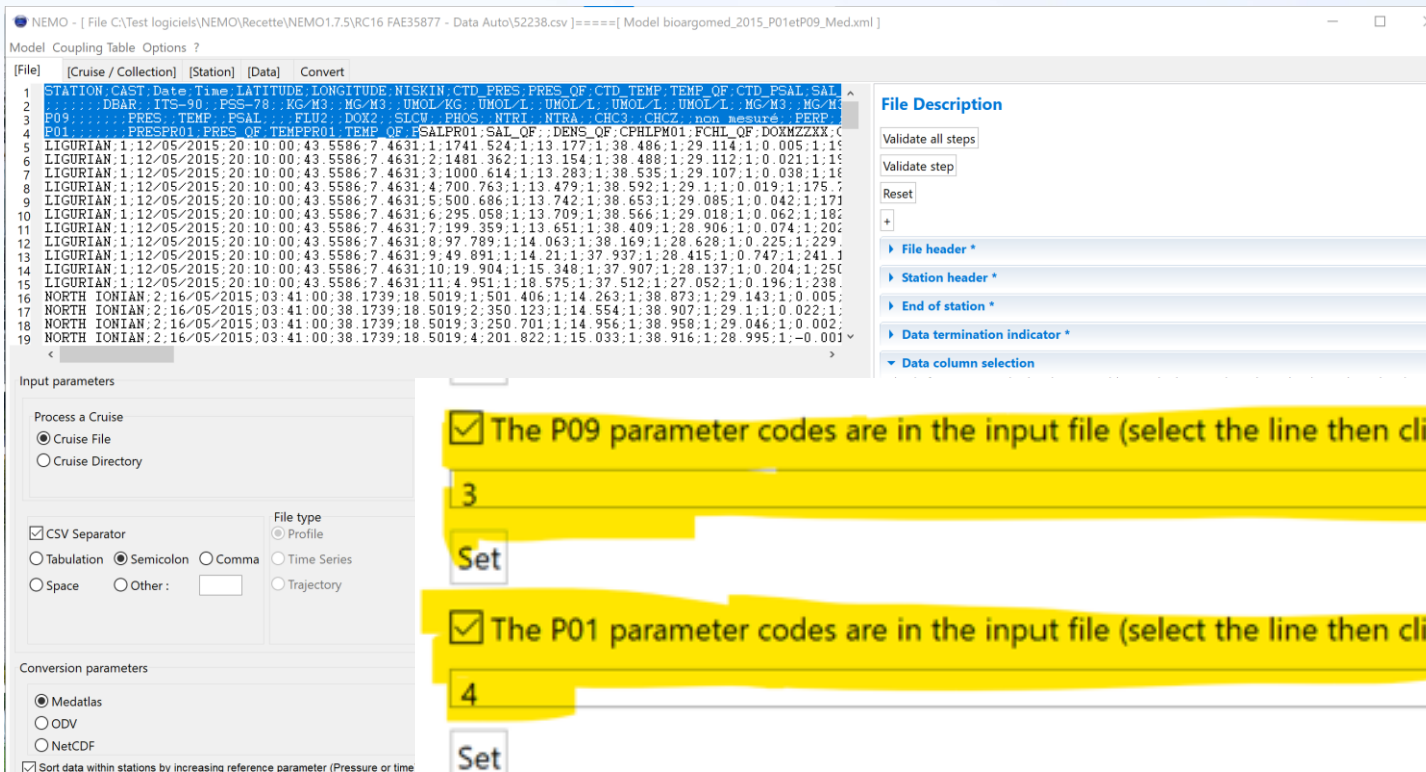
Model Coupling Table Options ?

[File] [Cruise / Collection] [Station] [Data] Convert

CTD_PRES   DBAR   PRES   PRESPR01	PRES_QF   ?   ?   PRES_QF	CTD_TEMP   ITS-90   TEMP   TEMPPR01	TEMP_QF   ?   ?   TEMP_QF	CTD_PSal   PSS-78   PSAL   PSALPR01	SAL_QF   ?   ?   SAL_QF	CTD_DENS   KG/M: ^
1741.524	1	13.177	1	38.480	1	29.114
1481.362	1	13.154	1	38.488	1	29.112
1000.614	1	13.283	1	38.535	1	29.107
700.763	1	13.479	1	38.592	1	29.1
500.686	1	13.742	1	38.653	1	29.085
CTD_PRES   DBAR   PRES   PRESPR01	PRES_QF   ?   ?   PRES_QF	CTD_TEMP   ITS-90   TEMP   TEMPPR01	TEMP_QF   ?   ?   TEMP_QF	CTD_PSal   PSS-78   PSAL   PSALPR01	SAL_QF   ?   ?   SAL_QF	CTD_DENS   KG/M: ^
49.891	1	14.21	1	37.937	1	28.415
19.904	1	15.348	1	37.907	1	28.137
4.951	1	18.575	1	37.512	1	27.052
501.406	1	14.263	1	38.873	1	29.143
350.123	1	14.554	1	38.907	1	29.1
250.701	1	14.956	1	38.958	1	29.046
201.822	1	15.033	1	38.916	1	28.995
102.896	1	15.438	1	38.924	1	28.904
81.703	1	15.515	1	38.904	1	28.871

# Changes on the File tab (4)

- New field in **Data column selection** for CSV files
  - Allows you to describe a row containing the parameter codes P01 or P09:



The screenshot shows the NEMO software interface with the 'File' tab selected. The 'Data column selection' section is highlighted, showing a list of parameters with checkboxes. The 'P09' and 'P01' parameter codes are highlighted in yellow. The 'File Description' panel on the right shows the 'Data column selection' option selected.

Input parameters:

- Process a Cruise
  - Cruise File
  - Cruise Directory
- File type
  - CSV Separator
  - Tabulation
  - Space
  - Other:
  - Profile
  - Time Series
  - Trajectory
- Conversion parameters
  - Medatlas
  - ODV
  - NetCDF

Sort data within stations by increasing reference parameter (Pressure or time)

**GOAL**

Automate the creation of parameter lines in the data tab

The P09 parameter codes are in the input file (select the line then click on 'Set')

3

Set

The P01 parameter codes are in the input file (select the line then click on 'Set')

4

Set

## Changes on Cruise tab (1)

- Changes in Data source
  - Use of EDMERP codes of projects instead of free text label, several projects possible, loaded by XML initialisation or manual input - Possibility to add or remove projects

▼ Data Source

Describe the origins of the Cruise's data

Country

35 - France

Laboratory

Laboratory for Ocean Physics and Satellite remote (LOPS)

Chief scientist

LHERMINIER Pascale

EDMERP codes

CODE	LABEL
12297	Optimizing and Enhancing the Integrated Atlantic Ocean Observing System
11760	Global Ocean Ship-based Hydrographic Investigations Program
11824	LEFE

### GOAL

Increase data  
FAIRness by  
adding  
metadata



## Changes on the Cruise tab (2)

- Added as sdn\_references in the output file:

```
<sdn_reference xlink:href="https://edmerp.seadatanet.org/report/12297"
xlink:role="isObservedBy" xlink:type="SDN:L23::EDMERP"/>
```

```
<sdn_reference xlink:href="https://edmerp.seadatanet.org/report/11760"
xlink:role="isObservedBy" xlink:type="SDN:L23::EDMERP"/>
```

- In the MedAtlas format, list of project codes (4 maximum, even if more in the cruise)

```
*FI35201805100 OVIDE 2018 35HT Thalassa
11/06/2018-15/07/2018 North Atlantic Ocean
35 Laboratory for Ocean Physics and Satellite remote (LOPS)
LHERMINIER Pascale Project=12297;11760;11824;12222
Regional Archiving= FI Availability=L
Data Type=D71 n=30 QC=N
Data Type=H09 n=2220 QC=N
Data Type=H10 n=104 QC=N
Data Type=H21 n=2220 QC=N
Data Type=H22 n=2215 QC=N
Data Type=H24 n=2215 QC=N
```

## Changes on the **Station** tab

- Station comment field increased to 1000 characters instead of 500
- Addition of test field for the Sensor Depth field

### ▼ Sensor's depth or Height \*

Sensor's depth is a mandatory value for time series. For Height input or read a negative value

Manual input

Automatic input

Position

Line  Start  End

Test 1300

## Changes on the **Data tab**

**GOAL**

Ease user life

- "Drag and drop" possible to move parameters in the list
- Multi-lines selection possible: to set the same instrument, the same unit, the same format, the same default value.... to several parameters in a single action
- Possibility to automatically fill the parameter table under certain conditions
- Possibility to automatically fill the parameter and flag positions under certain conditions

## Automatic fill in of the parameter table (1)

- Only possible for
  - CSV files containing P09 or P01 parameter codes
  - If the line containing these codes has been filled in the File tab
- When these conditions are met a new "Auto-fill" menu is available in the data tab Menu

CODE	STANDARD NA...	LONG NAME	UNIT	CONVERSI...	TEST

Update test

Add Parameter

**Auto-Fill P09/P01 parameter**

## Automatic fill in of the parameter table (2)

- A click on the menu and the table of parameters is filled, it remains to check or add the formats and add if necessary the default values, the flags in input and the instruments used

[File]	[Cruise / Collection]	[Station]	Data	Convert			
?   ?		PRES   PRESPR01	?   PRES_QF	TEMP   TEMPPR01	?   TEMP_QF	PSAL   PSALPR01	?   SAL_QF
1		1741.524	1	13.177	1	38.486	1
2		1481.362	1	13.154	1	38.488	1
3		1000.614	1	13.283	1	38.535	1
4		700.763	1	13.479	1	38.592	1
5		500.686	1	13.742	1	38.653	1
6		295.058	1	13.709	1	38.566	1
7		199.359	1	13.651	1	38.409	1
8		97.789	1	14.063	1	38.169	1
9		49.891	1	14.21	1	37.937	1
10		19.904	1	15.348	1	37.907	1
11		4.951	1	18.575	1	37.512	1

T.	CODE	LABEL	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	TEST ...	TEST ...	COLUMN FLAG	INST...
<input type="checkbox"/>	PRESPR01 - Pr...	Pressure	Decibars	x*1		8	%6.1f					
<input type="checkbox"/>	TEMPPR01 - T...	Temperature	Degrees Cels...	x*1		10	%6.3f					
<input type="checkbox"/>	PSALPR01 - Pr...		Dimensionless	x*1		12	%6.3f					
<input type="checkbox"/>	CPHLM01 - ...		Milligrams p...	x*1		16	%8.4f					
<input type="checkbox"/>	DOXMZZXX - ...		Micromoles ...	x*1		18	%7.3f					
<input type="checkbox"/>	MDMAP012 - ...		Micromoles ...	x*1		20	%5.1f					
<input type="checkbox"/>	PHOSZZXX - ...	Phosphate	Micromoles ...	x*1		22	%6.3f					
<input type="checkbox"/>	NTRIZZXX - C...	Nitrite	Micromoles ...	x*1		24	%6.3f					
<input type="checkbox"/>	NTRAZZXX - C...	Nitrate	Micromoles ...	x*1		26	%6.3f					
<input type="checkbox"/>	CHLC03PX - C...		Milligrams p...	x*1		28	%6.3f					
<input type="checkbox"/>	CHLC12PX - C...		Milligrams p...	x*1		30	%6.3f					
<input type="checkbox"/>	PERDXXXX - C...		Milligrams p...	x*1		34	%6.3f					
<input type="checkbox"/>	PBAXXP1 - C...		Milligrams p...	x*1		36	%6.4f					
<input type="checkbox"/>	BUTAXXX - C...		Milligrams p...	x*1		38	%6.3f					

## Changes in the data table menu

- suppressed because replaced by par drag and drop
- new Autofill functions
- new for multiple lines selections
- Set column number or set start/end

Set start/end  
Update test  
Parameter list  
Select an instrument  
Select a P06 unit  
Select a format  
Select a Standard Name  
Move current parameter up to top  
Move current parameter up  
Move current parameter down  
Move current parameter down to bottom  
Delete current parameter  
Set flag  
Delete flag  
Delete all parameters

Replaced  
by




Set column number  
Auto-Fill next parameter column  
Update test  
Select an instrument  
Delete instrument  
Select a P06 unit  
Select Format  
Set Conversion Value  
Set Input Default Value  
Select Standard Name  
Select Long Name  
Add Parameter  
Auto-Fill P09/P01 parameter  
Delete Parameter  
Set Flag  
Auto-Fill next parameter flags  
Delete Flag

## Auto-fill next parameter positions (1)

– Possible only for

- CSV files
- If the list of parameters entered in the data table is in the same order as in the data file
- When the position of the 1st parameter has already been entered

## Auto-fill next parameter positions (2)



DEPH	QC DEPH	PHOS	QC PHOS	NTRA	QC NTRA	NTRI	QC NTRI	SLCA
50.22842437	1	1.940000057	1	9.199999809	1	0.509999999	1	10.94999981
30.51284566	1	1.099999905	1	11.14999961	1	0.75	1	14.88000011
35.72762308	1	0.939999998	1	16.18000031	1	1.360000014	1	9.970000167
30.4652134	1	1.419999957	1	11.07999991	1	1.350000014	1	14.35000038
35.50028544	1	1.870000005	1	7.309999943	1	1.039999961	1	16.5
29.20029348	1	1.5	1	8.340000153	1	0.980000019	1	18.94000053
32.96240385	1	0.610000014	1	6.539999961	1	0.490000001	1	4.130000019
31.35534483	1	0.370000005	1	6.530000011	1	0.519999981	1	3.809999943
35.21355769	1	1.400000095	1	11.64000034	1	0.689999998	1	3.930000067
29.77583333	1	1.049999951	1	8.719999541	1	0.560000001	1	3.99000001
21.50399194	1	0.379999995	1	9	1	0.610000005	1	3.700000048

1. Measured parameters one column out of 2
2. Parameters in the same order in the file and in the table of measurements
3. 1<sup>st</sup> parameter position already set

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INST...
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9				
PHOS - PHOS...	millimole/m3	x*1		0	%6.3f		99.999				
NTRA - NITRA...	millimole/m3	x*1		0	%6.3f		99.999				
NTRI - NITRITE...	millimole/m3	x*1		0	%6.3f		99.999				
SLCA - SILICA...	millimole/m3	x*1		0	%7.3f		999.999				
CPHL - CHLO...	milligram/m3	x*1		0	%5.2f		99.99				
TPHP - TOTAL ...	milligram/m3	x*1		0	%6.3f		99.999				
AMON - AM...	millimole/m3	x*1		0	%6.2f		999.99				
TSMP - TOTAL ...	gram/m3	x*1		0	%7.3f		999.999				
OSMP - ORGA...	gram/m3	x*1		0	%6.3f		99.999				
ISMP - INORG...	gram/m3	x*1		0	%6.3f		99.999				

*Input the position of the 1st parameter*



# Auto-fill next parameter positions (2)

1. Measured parameters one column out of 2
2. Parameters in the same order in the file and in the table of measurements
3. 1<sup>st</sup> parameter position already set

DEPH	QC DEPH	PHOS	QC PHOS	NTRA	QC NTRA	NTRI	QC NTRI	SLCA
50.22842437	1	1.940000057	1	9.199999809	1	0.509999999	1	10.949999981
30.51284566	1	1.099999905	1	11.14999961	1	0.75	1	14.88000011
35.7				16.18000031	1	1.360000014	1	9.970000167
30.4				11.07999991	1	1.350000014	1	14.35000038
35.5				7.309999943	1	1.039999961	1	16.5
29.2				8.340000153	1	0.980000019	1	18.94000053
32.9				6.539999961	1	0.490000001	1	4.130000019
31.3				6.530000011	1	0.519999981	1	3.809999943
35.2				11.64000034	1	0.689999998	1	3.930000067
29.7				8.719999541	1	0.560000001	1	3.990000001
21.5				9	1	0.610000005	1	3.700000048

CODE	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INST...
DEPH	%6.1f		-999.9				
PHOS	%6.3f		99.999				
NTRA	%6.3f		99.999				
NTRI	%6.3f		99.999				
SLCA	%7.3f		999.999				
CPHL	%5.2f		99.99				
TPHP	%6.3f		99.999				
AMOI	%6.2f		999.99				
TSMP	%7.3f		999.999				
OSMF	%6.3f		99.999				
ISMP	%6.3f		99.999				

Choose Auto-Fill next parameter column

# Auto-fill next parameter positions (2)

DEPH	QC DEPH	PHOS	QC PHOS	NTRA	QC NTRA	NTRI	QC NTRI	SLCA
50.22842437	1	1.940000057	1	9.199999809	1	0.509999999	1	10.949999981
30.51284566	1	1.099999905	1	11.149999961	1	0.75	1	14.88000011
35.7				16.18000031	1	1.360000014	1	9.970000167
30.4				11.07999991	1	1.350000014	1	14.35000038
35.5				7.309999943	1	1.039999961	1	16.5
29.2				8.340000153	1	0.980000019	1	18.94000053
32.9				6.539999961	1	0.490000001	1	4.130000019
31.3				6.530000011	1	0.519999981	1	3.809999943
35.2				11.640000034	1	0.689999998	1	3.930000067
29.7				8.719999541	1	0.560000001	1	3.990000001
21.5				9	1	0.610000005	1	3.700000048

CODE	UNIT	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INST...
DEPH		%6.1f		-999.9				
PHOS		%6.3f		99.999				
NTRA		%6.3f		99.999				
NTRI		%6.3f		99.999				
SLCA		%7.3f		999.999				
CPHL		%5.2f		99.99				
TPHP		%6.3f		99.999				
AMOI		%6.2f		999.99				
TSMP		%7.3f		999.999				
OSMF		%6.3f		99.999				
ISMP		%6.3f		99.999				

Auto-Fill next parameter co...

Incremental Value **2**

OK Cancel

1. Measured parameters one column out of 2
2. Parameters in the same order in the file and in the table of measurements
3. 1<sup>st</sup> parameter position already set

*Set the number of column to skip to read the next position*

# Auto-fill next parameter positions (2)

1. Measured parameters one column out of 2
2. Parameters in the same order in the file and in the table of measurements
3. 1<sup>st</sup> parameter position already set

DEPH	QC DEPH	PHOS	QC PHOS	NTRA	QC NTRA	NTRI	QC NTRI	SLCA
50.22842437	1	1.940000057	1	9.199999809	1	0.509999999	1	10.949999981
30.51284566	1	1.099999905	1	11.14999961	1	0.75	1	14.88000011
35.7				16.18000031	1	1.360000014	1	9.970000167
30.4				11.07999991	1	1.350000014	1	14.35000038
35.5				7.309999943	1	1.039999961	1	16.5
29.2				8.340000153	1	0.980000019	1	18.94000053
32.9				6.539999961	1	0.490000001	1	4.130000019
31.3				6.530000011	1	0.519999981	1	3.809999943
35.2				11.64000034	1	0.689999998	1	3.930000067
29.7				8.719999541	1	0.560000001	1	3.990000001
21.5				9	1	0.610000005	1	3.700000048

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9
PHOS - PHOS...	millimole/m3	x*1		10	%6.3f		99.999
NTRA - NITRA...	millimole/m3	x*1		12	%6.3f		99.999
NTRI - NITRITE...	millimole/m3	x*1		14	%6.3f		99.999
SLCA - SILICA...	millimole/m3	x*1		16	%7.3f		999.999
CPHL - CHLO...	milligram/m3	x*1		18	%5.2f		99.99
TPHP - TOTAL ...	milligram/m3	x*1		20	%6.3f		99.999
AMON - AM...	millimole/m3	x*1		22	%6.2f		999.99
TSMP - TOTAL ...	gram/m3	x*1		24	%7.3f		999.999
OSMP - ORGA...	gram/m3	x*1		26	%6.3f		99.999
ISMP - INORG...	gram/m3	x*1		28	%6.3f		99.999

## Autofill next parameter flags positions (1)

- Possible only for
  - CSV files
  - If the list of parameters entered in the data table is in the same order as in the data file
  - When the position of the 1st parameter flag has already been entered
- Same action than for the parameters

## Autofill next parameter flag position (2)

1. QC flags one column out of 2
2. Same order of pthe paramters
3. Position of the 1st flag already set

[File]	[Cruise / Collection]	[Station]	Data	Conver...					
DEPH	QC DEPH	PHOS	QC PHOS	NTRA	QC NTRA	NTRI	QC NTRI	SI	
50.22842437	1	1.940000057	1	9.199999809	1	0.509999999	1	10	
30.51284566	1	1.099999905	1	11.14999961	1	0.75	1	14	
35.72762308	1	0.939999998	1	16.18000031	1	1.360000014	1	9.	
30.4652134	1	1.419999957	1	11.07999991	1	1.350000014	1	14	
35.50028544	1	1.870000005	1	7.309999943	1	1.039999961	1	16	
29.20029348	1	1.5	1	8.340000153	1	0.980000019	1	18	
32.96240385	1	0.610000014	1	6.539999961	1	0.490000001	1	4.	
31.35534483	1	0.370000005	1	6.53000011	1	0.519999981	1	3.	
35.21355769	1	1.400000095	1	11.64000034	1	0.689999998	1	3.	
29.77583333	1	1.049999951	1	8.719999541	1	0.560000001	1	3.	
21.50399194	1	0.379999995	1	9	1	0.610000005	1	3.	

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9			9
PHOS - PHOS...	millimole/m3	x*1		0	%6.3f		99.999			
NTRA - NITRA...	millimole/m3	x*1		0	%6.3f		99.999			
NTRI - NITRITE...	millimole/m3	x*1		0	%6.3f		99.999			
SLCA - SILICA...	millimole/m3	x*1		0	%7.3f		999.999			
CPHL - CHLO...	milligram/m3	x*1		0	%5.2f		99.99			
TPHP - TOTAL ...	milligram/m3	x*1		0	%6.3f		99.999			
AMON - AM...	millimole/m3	x*1		0	%6.2f		999.99			
TSMP - TOTAL ...	gram/m3	x*1		0	%7.3f		999.999			
OSMP - ORGA...	gram/m3	x*1		0	%6.3f		99.999			

Input the position of the 1st flag

# Autofill next parameter flag position (2)

1. QC flags one column out of 2
2. Same order of pthe paramters
3. Position of the 1st flag already set

[File]	[Cruise / Collection]	[Station]	Data	Conversion				
DEPH	QC DEPH	PHOS	QC PHOS	NTRA	QC NTRA	NTRI	QC NTRI	SI
50.22842437	1	1.940000057	1	9.199999809	1	0.509999999	1	10
30.51284566	1	1.099999905	1	11.14999961	1	0.75	1	14
35.72762308	1	0.939999998	1	16.18000031	1	1.360000014	1	9.
30.4652134	1	1.419999957	1	11.07999991	1	1.350000014	1	14
35.50028544	1	1.870000005	1	7.309999943	1	1.039999961	1	16
			1	8.340000153	1	0.980000019	1	18
			1	6.539999961	1	0.490000001	1	4.
			1	6.530000011	1	0.519999981	1	3.
			1	11.64000034	1	0.689999998	1	3.
			1	8.719999541	1	0.560000001	1	3.
			1	9	1	0.610000005	1	3.

COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG
8	%6.1f		-999.9			9
0	%6.3f		99.999			
0	%6.3f		99.999			
0	%6.3f		99.999			
0	%7.3f		999.999			
0	%5.2f		99.99			
0	%6.3f		99.999			
0	%6.2f		999.99			
0	%7.3f		999.999			
0	%6.3f		99.999			

Choose Auto-Fill next parameter flags

- Set column number
- Auto-Fill next parameter column
- Update test
- Select an instrument
- Delete instrument
- Select Format
- Set Conversion Value
- Set Input Default Value
- Set Output Default Value
- Add Parameter
- Delete Parameter
- Set Flag
- Auto-Fill next parameter flags**
- Delete Flag

# Autofill next parameter flag position (2)

1. QC flags one column out of 2
2. Same order of the parameters
3. Position of the 1st flag already set

[File]	[Cruise / Collection]	[Station]	Data	Conversion				
DEPH	QC DEPH	PHOS	QC PHOS	NTRA	QC NTRA	NTRI	QC NTRI	SI
50.22842437	1	1.940000057	1	9.199999809	1	0.509999999	1	10
30.51284566	1	1.099999905	1	11.14999961	1	0.75	1	14
35.72762308	1	0.939999998	1	16.18000031	1	1.360000014	1	9.
30.4652134	1	1.419999957	1	11.07999991	1	1.350000014	1	14
35.50028544	1	1.870000005	1	7.309999943	1	1.039999961	1	16
			1	8.340000153	1	0.980000019	1	18
			1	6.539999961	1	0.490000001	1	4.
			1	6.530000011	1	0.519999981	1	3.
			1	11.64000034	1	0.689999998	1	3.
			1	8.719999541	1	0.560000001	1	3.
			1	9	1	0.610000005	1	3.

- Set column number
- Auto-Fill next parameter column
- Update test
- Select an instrument
- Delete instrument
- Select Format
- Set Conversion Value
- Set Input Default Value
- Set Output Default Value
- Add Parameter
- Delete Parameter
- Set Flag
- Auto-Fill next parameter flags**
- Delete Flag

COLUMN	FORMAT	INDI	OUTPUT DEF	TEST	TEST	COLUMN FLAG
8	%6.1f					9
0	%6.3f					
0	%6.3f					
0	%6.3f					
0	%7.3f					
0	%5.2f					
0	%6.3f		99.999			
0	%6.2f		999.99			
0	%7.3f		999.999			
0	%6.3f		99.999			

Incremental Value **2**

OK Cancel

Set the number of column to skip to read the next position

# Autofill next parameter flag position (2)

1. QC flags one column out of 2
2. Same order of the parameters
3. Position of the 1st flag already set

[File]	[Cruise / Collection]	[Station]	Data	Conversion						
DEPH	QC DEPH	PHOS	QC PHOS	NTRA	QC NTRA	NTRI	QC NTRI	SI		
50.22842437	1	1.940000057	1	9.199999809	1	0.509999999	1	10		
30.51284566	1	1.099999905	1	11.14999961	1	0.75	1	14		
35.72762308	1	0.939999998	1	16.18000031	1	1.360000014	1	9.		
30.4652134	1	1.419999957	1	11.07999991	1	1.350000014	1	14		
35.50028544	1	1.870000005	1	7.309999943	1	1.039999961	1	16		
			1	8.340000153	1	0.980000019	1	18		
			1	6.539999961	1	0.490000001	1	4.		
			1	6.530000011	1	0.519999981	1	3.		
			1	11.64000034	1	0.689999998	1	3.		
			1	8.719999541	1	0.560000001	1	3.		

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9			9
PHOS - PHOS...	millimole/m3	x*1		0	%6.3f		99.999			11
NTRA - NITRA...	millimole/m3	x*1		0	%6.3f		99.999			13
NTRI - NITRITE...	millimole/m3	x*1		0	%6.3f		99.999			15
SLCA - SILICA...	millimole/m3	x*1		0	%7.3f		999.999			17
CPHL - CHLO...	milligram/m3	x*1		0	%5.2f		99.99			19
TPHP - TOTAL ...	milligram/m3	x*1		0	%6.3f		99.999			21
AMON - AM...	millimole/m3	x*1		0	%6.2f		999.99			23
TSMP - TOTAL ...	gram/m3	x*1		0	%7.3f		999.999			25
OSMP - ORGA...	gram/m3	x*1		0	%6.3f		99.999			27
ISMP - INORG...	gram/m3	x*1		0	%6.3f		99.999			29



## Delete an instrument (1) *select the lines*

- For one or more parameters depending on the number of lines selected

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INSTRUMENT
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9			9	Niskin bottle
PHOS - PHOS...	millimole/m3	x*1		0	%6.3f		99.999			11	Niskin bottle
NTRA - NITRA...	millimole/m3	x*1		0	%6.3f		99.999			13	Niskin bottle
NTRI - NITRITE...	millimole/m3	x*1		0	%6.3f		99.999			15	Niskin bottle
SLCA - SILICA...	millimole/m3	x*1		0	%7.3f		999.999			17	Niskin bottle
CPHL - CHLO...	milligram/m3	x*1		0	%5.2f		99.99			19	Niskin bottle
TPHP - TOTAL ...	milligram/m3	x*1		0	%6.3f		99.999			21	Niskin bottle
AMON - AM...	millimole/m3	x*1		0	%6.2f		999.99			23	Niskin bottle
TSMP - TOTAL ...	gram/m3	x*1		0	%7.3f		999.999			25	Niskin bottle
OSMP - ORGA...	gram/m3	x*1		0	%6.3f		99.999			27	Niskin bottle
ISMP - INORG...	gram/m3	x*1		0	%6.3f		99.999			29	Niskin bottle

*Select the parameter lines*

## Delete an instrument (2) *choose Delete Instrument*

- For one or more parameters depending on the number of lines selected

COD		FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INSTRUMENT
DEPH	Set column number	%6.1f		-999.9			9	Niskin bottle
PHO	Update test	%6.3f		99.999			11	Niskin bottle
NTR4	Select an instrument	%6.3f		99.999			13	Niskin bottle
NTRI	<b>Delete instrument</b>	%6.3f		99.999			15	Niskin bottle
SLCA	Select Format	%7.3f		999.999			17	Niskin bottle
CPHI	Set Conversion Value	%5.2f		99.99			19	Niskin bottle
TPHF	Set Input Default Value	%6.3f		99.999			21	Niskin bottle
AMC	Set Output Default Value	%6.2f		999.99			23	Niskin bottle
TSMF	Add Parameter	%7.3f		999.999			25	Niskin bottle
OSM	Delete Parameter	%6.3f		99.999			27	Niskin bottle
ISMP	Set Flag	%6.3f		99.999			29	Niskin bottle
	Auto-Fill next parameter flags							
	Delete Flag							

*Choose Delete instrument*

## Delete an instrument (3) *Result*

- For one or more parameters depending on the number of lines selected

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INSTRUMENT
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9			9	
PHOS - PHOS...	millimole/m3	x*1		0	%6.3f		99.999			11	Niskin bottle
NTRA - NITRA...	millimole/m3	x*1		0	%6.3f		99.999			13	Niskin bottle
NTRI - NITRITE...	millimole/m3	x*1		0	%6.3f		99.999			15	Niskin bottle
SLCA - SILICA...	millimole/m3	x*1		0	%7.3f		999.999			17	Niskin bottle
CPHL - CHLO...	milligram/m3	x*1		0	%5.2f		99.99			19	Niskin bottle
TPHP - TOTAL ...	milligram/m3	x*1		0	%6.3f		99.999			21	Niskin bottle
AMON - AM...	millimole/m3	x*1		0	%6.2f		999.99			23	Niskin bottle
TSMP - TOTAL ...	gram/m3	x*1		0	%7.3f		999.999			25	Niskin bottle
OSMP - ORGA...	gram/m3	x*1		0	%6.3f		99.999			27	
ISMP - INORG...	gram/m3	x*1		0	%6.3f		99.999			29	

*Results*

## Set the input default value (1) *Select the lines*

- For one or more parameters depending on the number of lines selected

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INSTRUMENT
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9			9	
PHOS - PHOS...	millimole/m3	x*1		0	%6.3f		99.999			11	Niskin bottle
NTRA - NITRA...	millimole/m3	x*1		0	%6.3f		99.999			13	Niskin bottle
NTRI - NITRITE...	millimole/m3	x*1		0	%6.3f		99.999			15	Niskin bottle
SLCA - SILICA...	millimole/m3	x*1		0	%7.3f		999.999			17	Niskin bottle
CPHL - CHLO...	milligram/m3	x*1		0	%5.2f		99.99			19	Niskin bottle
TPHP - TOTAL ...	milligram/m3	x*1		0	%6.3f		99.999			21	Niskin bottle
AMON - AM...	millimole/m3	x*1		0	%6.2f		999.99			23	Niskin bottle
TSMP - TOTAL ...	gram/m3	x*1		0	%7.3f		999.999			25	Niskin bottle
OSMP - ORGA...	gram/m3	x*1		0	%6.3f		99.999			27	
ISMP - INORG...	gram/m3	x*1		0	%6.3f		99.999			29	

*Select the parameter lines*

# Set the input default value (2) *choose set Input Default value*

- For one or more parameters depending on the number of lines selected

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INSTRUMENT
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9			9	
PHOS - PHOS	millimole/m3	x*1		0	%6.3f		99.999			11	Niskin bottle
NTRA -				0	%6.3f		99.999			13	Niskin bottle
NTRI - I				0	%6.3f		99.999			15	Niskin bottle
SLCA -				0	%7.3f		999.999			17	Niskin bottle
CPHL -				0	%5.2f		99.99			19	Niskin bottle
TPHP -				0	%6.3f		99.999			21	Niskin bottle
AMON				0	%6.2f		999.99			23	Niskin bottle
TSMP -				0	%7.3f		999.999			25	Niskin bottle
OSMP -				0	%6.3f		99.999			27	
ISMP -				0	%6.3f		99.999			29	

- Set column number
- Update test
- Select an instrument
- Delete instrument
- Select Format
- Set Conversion Value
- Set Input Default Value
- Set Output Default Value
- Add Parameter
- Delete Parameter
- Set Flag
- Auto-Fill next parameter flags
- Delete Flag

*Choose Set Input Default Value*

# Set the input default value (3) *Input the default value*

- For one or more parameters depending on the number of lines selected

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INSTRUMENT
DEPTH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9			9	
PHOS - PHOS	millimole/m3	x*1		0	%6.3f		99.999			11	Niskin bottle
NTRA -				0	%6.3f		99.999			13	Niskin bottle
NTRI - I				0	%6.3f		99.999			15	Niskin bottle
SLCA -				0	%7.3f		999.999			17	Niskin bottle
CPHL -										19	Niskin bottle
TPHP -										21	Niskin bottle
AMON										23	Niskin bottle
TSMP -										25	Niskin bottle
OSMP -										27	
ISMP -										29	

- Set column number
- Update test
- Select an instrument
- Delete instrument
- Select Format
- Set Conversion Value
- Set Input Default Value**
- Set Output Default Value
- Add Parameter
- Delete Parameter
- Set Flag
- Auto-Fill next parameter flags
- Delete Flag

Input Default Value

Set an Input default value for the selected parameters

OK Cancel

*Set the Input Default Value, here 'NaN'*

## Set the input default value (4) *Result*

- For one or more parameters depending on the number of lines selected

CODE	UNIT	CONVER...	TEST	COLUMN	FORMAT	INPU...	OUTPUT DEF. ...	TEST ...	TEST ...	COLUMN FLAG	INSTRUMENT
DEPH - DEPTH...	meter	x*1	50,2	8	%6.1f		-999.9			9	
PHOS - PHOS...	millimole/m3	x*1		0	%6.3f	NaN	99.999			11	Niskin bottle
NTRA - NITRA...	millimole/m3	x*1		0	%6.3f	NaN	99.999			13	Niskin bottle
NTRI - NITRITE...	millimole/m3	x*1		0	%6.3f	NaN	99.999			15	Niskin bottle
SLCA - SILICA...	millimole/m3	x*1		0	%7.3f	NaN	999.999			17	Niskin bottle
CPHL - CHLO...	milligram/m3	x*1		0	%5.2f	NaN	99.99			19	Niskin bottle
TPHP - TOTAL ...	milligram/m3	x*1		0	%6.3f	NaN	99.999			21	Niskin bottle
AMON - AM...	millimole/m3	x*1		0	%6.2f	NaN	999.99			23	Niskin bottle
TSMP - TOTAL ...	gram/m3	x*1		0	%7.3f	NaN	999.999			25	Niskin bottle
OSMP - ORGA...	gram/m3	x*1		0	%6.3f	NaN	99.999			27	
ISMP - INORG...	gram/m3	x*1		0	%6.3f	NaN	99.999			29	

*Results*

# Changes during the conversion

- Station comments
  - Station comments from CNV files can be taken into account
  - Station comments are kept in ODV and added at the beginning of the file as comment lines
- Flag 'B' (nominal value) set on the pressure/depth of time series and trajectories if it is generated in the output file from the sensor depth



# New fields in the CDI-SUMMARY

- Used by MIKADO to generate CDI metadata
- Additional information  
L05 (L22-L05 mapping) and L22 instrument codes, EDMERP codes, Cruise alternative name and CSR id, Cruise start date, Sampling rate and unit, Bounding box for trajectories, Station start and end date, Min and max measurement depth, Bottom depth
- Generation of a file allowing to draw the trajectory route in MIKADO → MIKADO upgrading done to take into account this new file

## GOAL

Increase data  
FAIRness by  
adding  
metadata

## New **Batch Builder** tool (1)

**GOAL**

Ease user life

- to help the user in writing batch procedures for NEMO, especially for a set of files using the same template but for different cruises/datasets
  - Makes it easier to create a batch with arguments that vary from one file to another
  - Arguments are listed in a CSV file: one line per file

## Batch Builder (2)

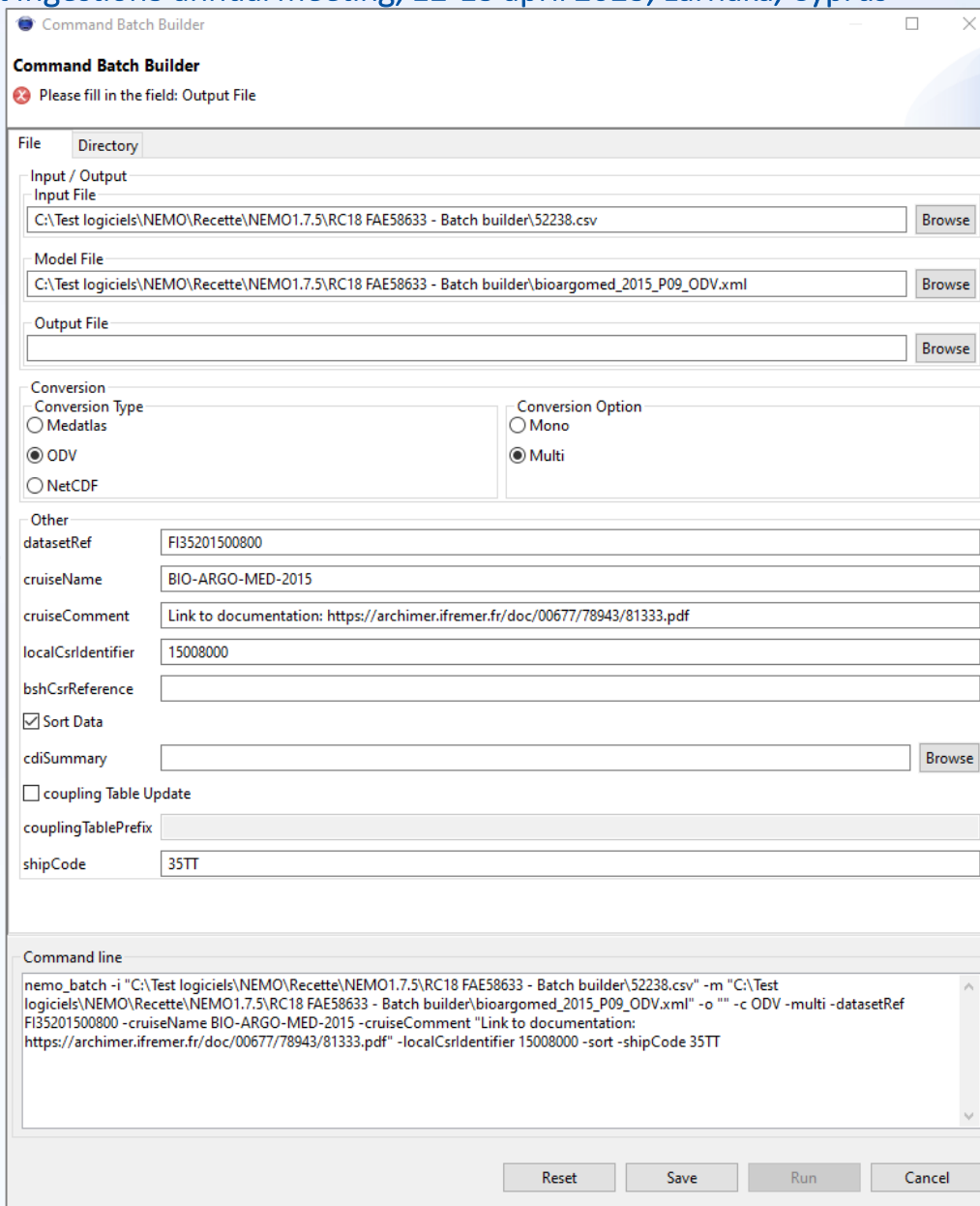
- CSV mapping file
  - Contains the 10 arguments of the batches to be launched, separated by ';'
    - One line per file

fileNameIn	modelName	fileNameOut	datasetRef
000486_ODV_GOSUD_FI352008090050.txt	gosud_model_odv_Fanindien2008.xml	output_GOSUD_FI352008090050_175rc18.txt	FI352008090050
000486_ODV_GOSUD_FI352008090070.txt	gosud_model_odv_Fanindien2008.xml	output_GOSUD_FI352008090070_175rc18.txt	FI352008090070
000486_ODV_GOSUD_FI3520080900780.txt	gosud_model_odv_Fanindien2008.xml	output_GOSUD_FI352008090080_175rc18.txt	FI352008090080
000486_ODV_GOSUD_FI352009030020_TS.txt	gosud_model_odv_Fanindien2008.xml	output_GOSUD_FI352009030020_175rc18.txt	FI352009030020

cruiseName	cruiseComment	localCsrIdentifier	bshCsrReference	cdiSummary	shipCode
MADAGASCAR 2008 - LEG1	Tsg Beautemps-Beaupré cruise off Toamasina	8090050		summary_GOSL	35B5
FANINDIEN 2008	Tsg Beautemps-Beaupré cruise off Toamasina	8090070		summary_GOSL	35B5
MADAGASCAR 2008 - LEG2	Tsg Beautemps-Beaupré cruise off Toamasina	8090080		summary_GOSL	35B5
ESSNAUT 2009	TSG ESSNAUT 2009 cruise	9030020		summary_GOSL	35PK

## Batch Builder (3)

- Main screen, 2 modes
  - write batch command for **one file**



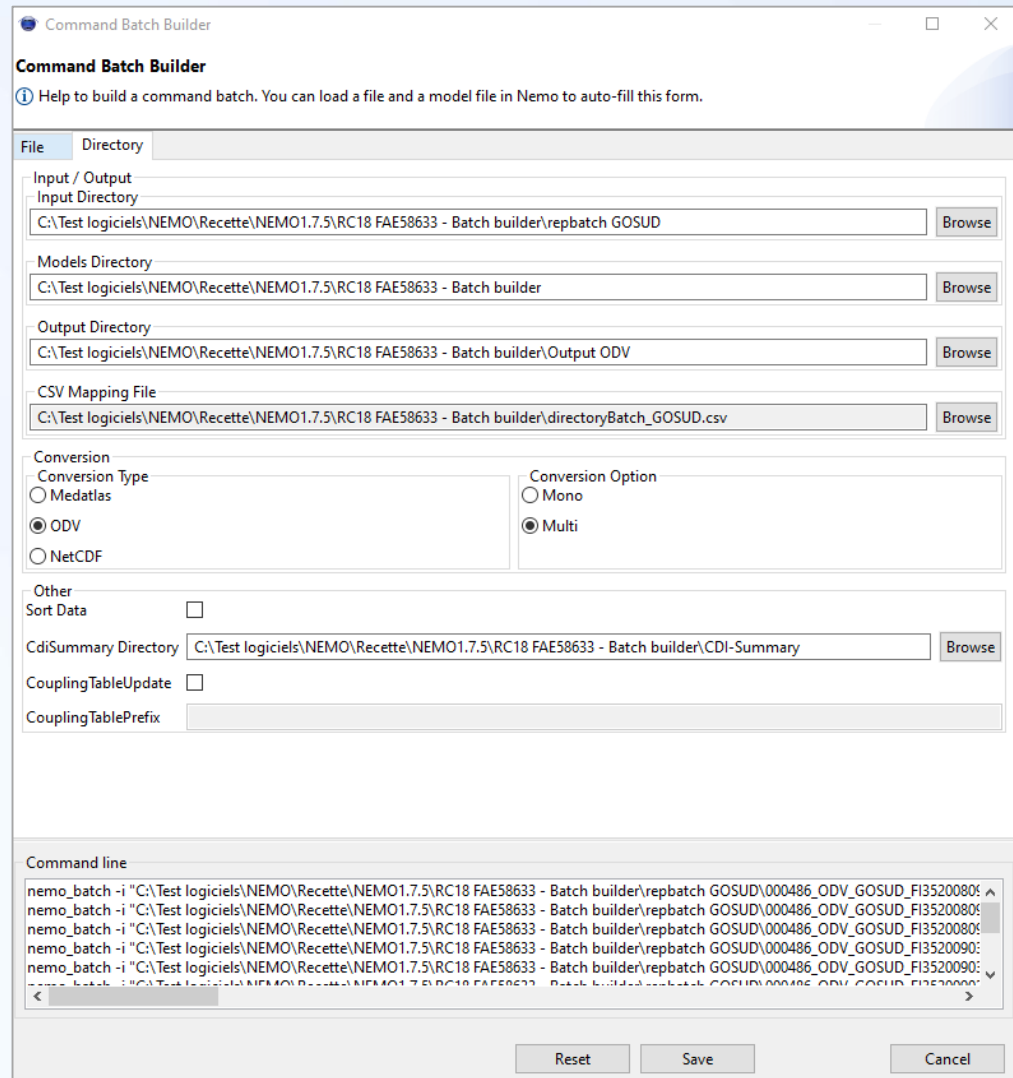
The screenshot shows the 'Command Batch Builder' application window. It features a title bar with standard window controls and a main area with several sections:

- Command Batch Builder**: A header section with a red error icon and the message 'Please fill in the field: Output File'.
- File**: A tabbed section with a 'Directory' sub-tab. It contains three input fields with 'Browse' buttons:
  - Input / Output**: Input File, containing 'C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\52238.csv'.
  - Model File**: containing 'C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\bioargomed\_2015\_P09\_ODV.xml'.
  - Output File**: currently empty.
- Conversion**: A section with two columns of radio buttons:
  - Conversion Type**:  Medatlas,  ODV,  NetCDF.
  - Conversion Option**:  Mono,  Multi.
- Other**: A section with several text input fields:
  - datasetRef**: FI35201500800
  - cruiseName**: BIO-ARGO-MED-2015
  - cruiseComment**: Link to documentation: <https://archimer.ifremer.fr/doc/00677/78943/81333.pdf>
  - localCsrIdentifier**: 15008000
  - bshCsrReference**: (empty)
  - Sort Data
  - cdiSummary**: (empty) with a 'Browse' button.
  - coupling Table Update
  - couplingTablePrefix**: (empty)
  - shipCode**: 35TT
- Command line**: A text area containing the generated command:

```
nemo_batch -i "C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\52238.csv" -m "C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\bioargomed_2015_P09_ODV.xml" -o "" -c ODV -multi -datasetRef FI35201500800 -cruiseName BIO-ARGO-MED-2015 -cruiseComment "Link to documentation: https://archimer.ifremer.fr/doc/00677/78943/81333.pdf" -localCsrIdentifier 15008000 -sort -shipCode 35TT
```
- Buttons**: 'Reset', 'Save', 'Run', and 'Cancel' buttons are located at the bottom right.

## Batch Builder (4)

- Main screen, 2 modes
  - write batch command for a directory with several files



The screenshot shows the 'Command Batch Builder' application window. The title bar reads 'Command Batch Builder'. Below the title bar, there is a section titled 'Command Batch Builder' with a help icon and the text: 'Help to build a command batch. You can load a file and a model file in Nemo to auto-fill this form.'

The main area is divided into several sections:

- File** and **Directory** tabs are visible at the top.
- Input / Output** section: 'Input Directory' is set to 'C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\repatch GOSUD'.
- Models Directory** section: Set to 'C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder'.
- Output Directory** section: Set to 'C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\Output ODV'.
- CSV Mapping File** section: Set to 'C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\directoryBatch\_GOSUD.csv'.
- Conversion** section: 'Conversion Type' has radio buttons for 'Medatlas', 'ODV' (selected), and 'NetCDF'. 'Conversion Option' has radio buttons for 'Mono' and 'Multi' (selected).
- Other** section: 'Sort Data' is unchecked.
- CdiSummary Directory** section: Set to 'C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\CDI-Summary'.
- CouplingTableUpdate** section: Unchecked.
- CouplingTablePrefix** section: Empty text box.

At the bottom, there is a **Command line** section with a text area containing the following command:

```
nemo_batch -i "C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\repatch GOSUD\000486_ODV_GOSUD_F13520080" ^
nemo_batch -i "C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\repatch GOSUD\000486_ODV_GOSUD_F13520080" ^
nemo_batch -i "C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\repatch GOSUD\000486_ODV_GOSUD_F13520080" ^
nemo_batch -i "C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\repatch GOSUD\000486_ODV_GOSUD_F13520090" ^
nemo_batch -i "C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\repatch GOSUD\000486_ODV_GOSUD_F13520090" ^
nemo_batch -i "C:\Test logiciels\NEMO\Recette\NEMO1.7.5\RC18 FAE58633 - Batch builder\repatch GOSUD\000486_ODV_GOSUD_F13520090" ^
```

At the bottom right, there are buttons for 'Reset', 'Save', and 'Cancel'.

## NEMO 2.0 Status

- Last developments finished
- Need some more tests
- Will be distributed soon (end of April – Beginning of May) via SeaDataNet web site

### Help desk

For any help, question :  
[sdn-userdesk@seadatanet.org](mailto:sdn-userdesk@seadatanet.org)

