



ifremer

*Training course 2, Ostende, 20-22 May 2014*



PAN-EUROPEAN INFRASTRUCTURE  
FOR OCEAN & MARINE DATA  
MANAGEMENT

## *Tools for generation of SDN NetCDF (CFPOINT) files*

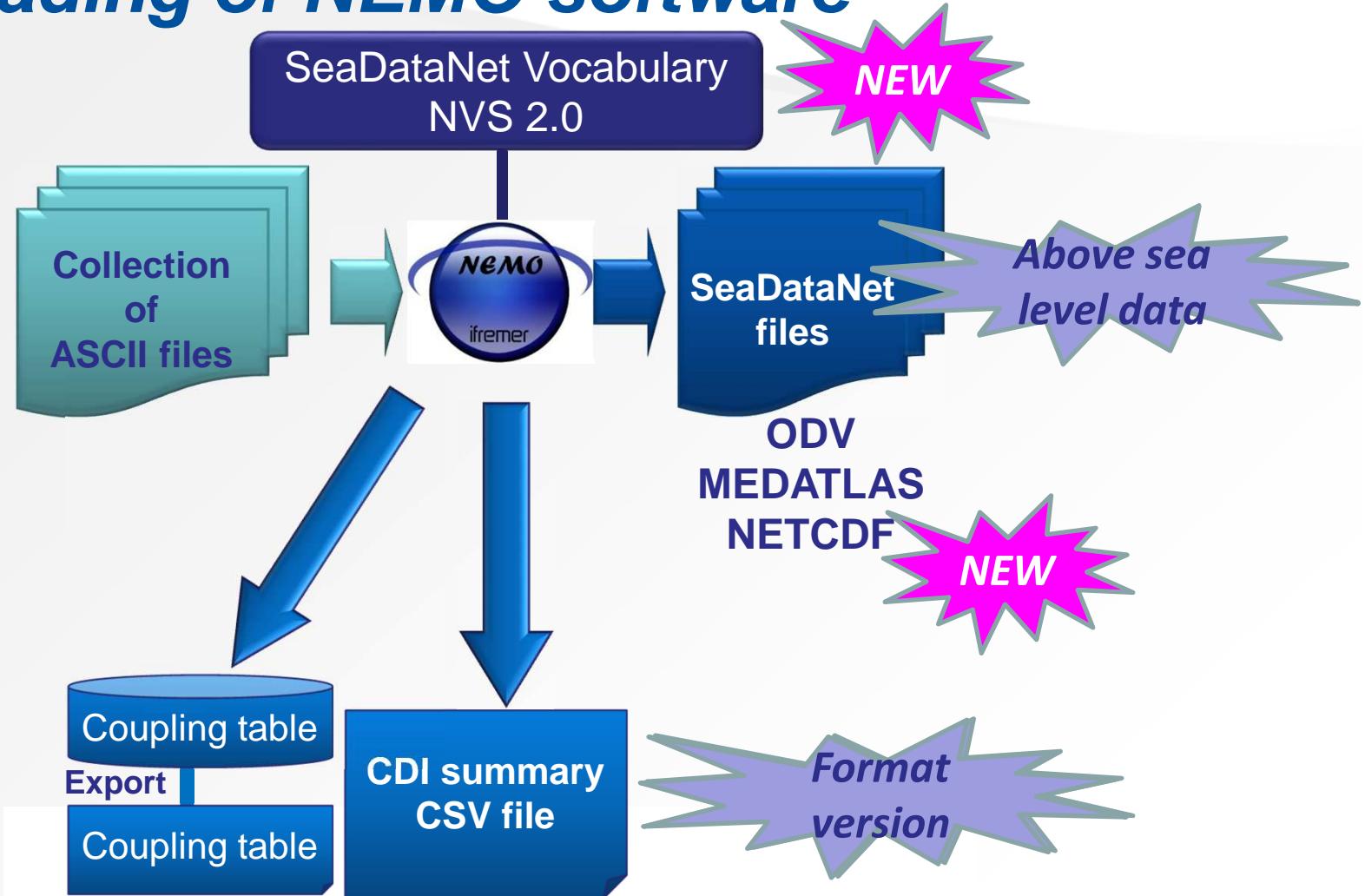
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## ***New format definition implies***

- Upgrading of the existing tools
  - NEMO
  - Download manager
- Development of new tools
  - Format converters
    - OdvSDN2CFPOINT
    - MedSDN2CFPOINT

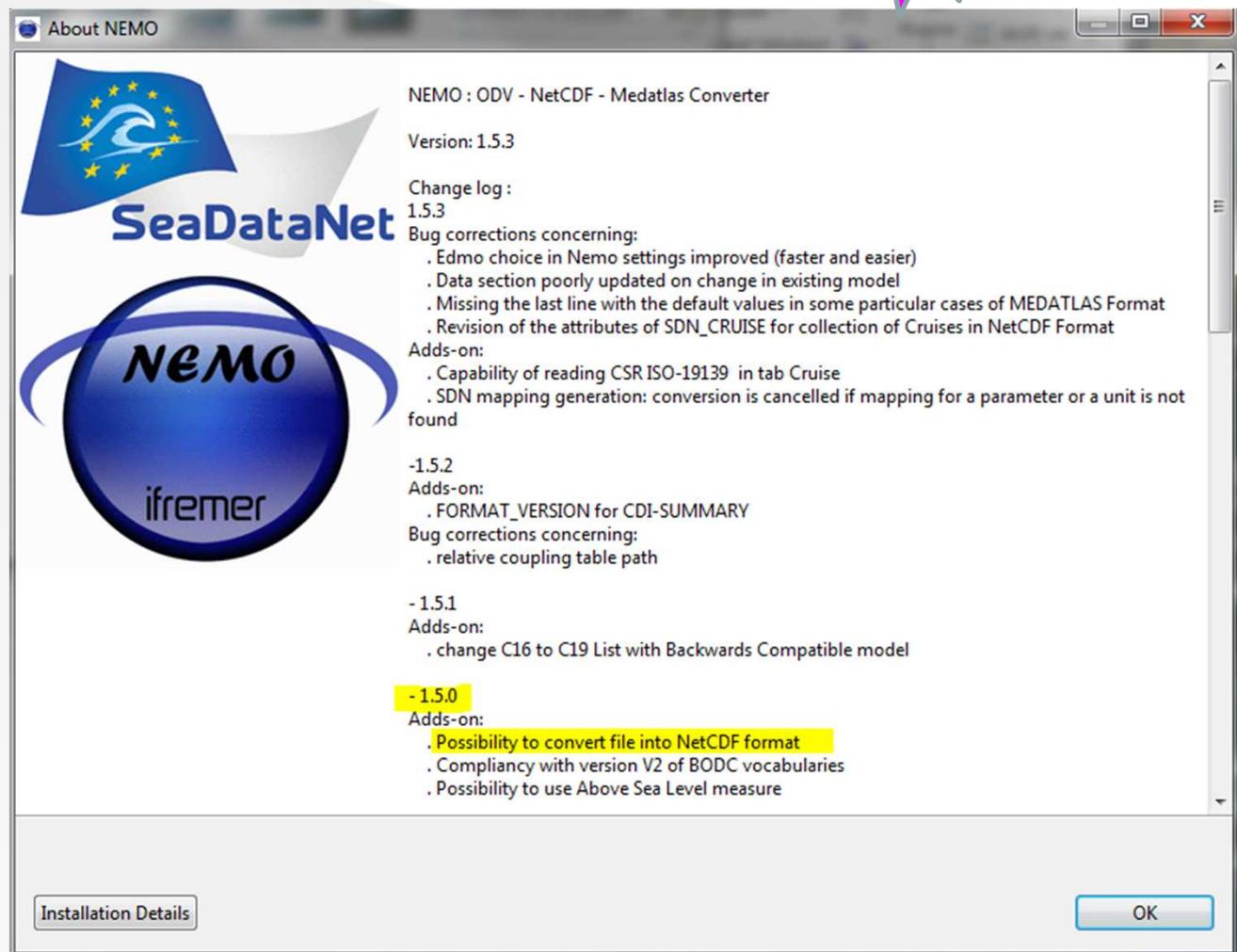
## Upgrading of NEMO software



# Upgrading of NEMO software

since v1.5.0  
released in  
July 2013

Current  
version: v1.5.3



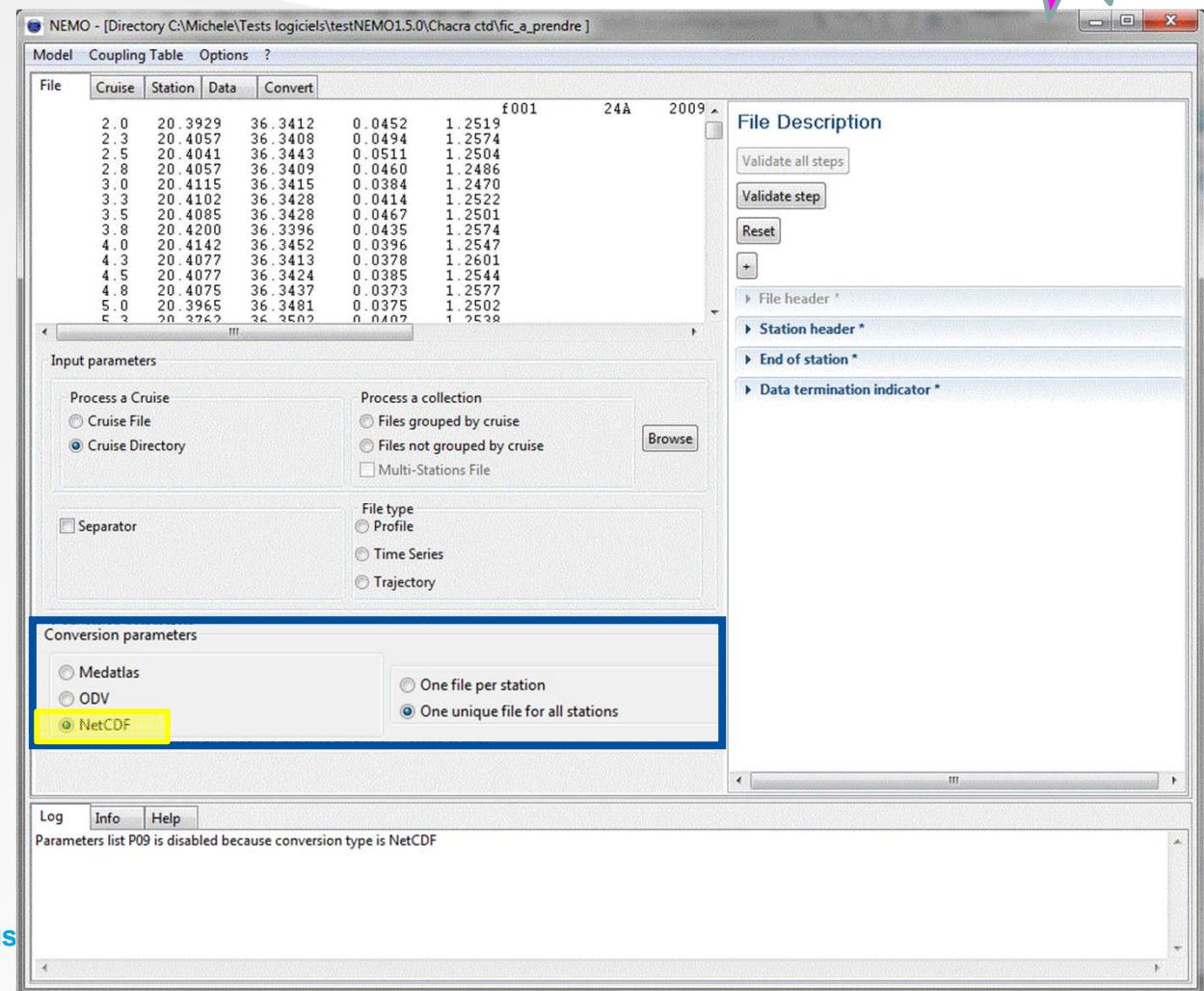
## ***NEMO for NetCDF***

- Same principles than for ODV and MEDATLAS
  - input ASCII file(s)
  - Description in NEMO
  - Output as NetCDF file mono-station or multi-stations

# *NetCDF format mono or multi-station*


 NEW

for vertical profiles,  
time- series and  
trajectories





**SeaDataNet**

PAN-EUROPEAN INFRASTRUCTURE  
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MANAGEMENT

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**NEW**

# NetCDF cruise metadata

NEMO - [Directory C:\Michele\testNEMO1.5.0\Chacra ctd\fic\_a\_prendre ]===== [ Model model\_NetCDFmulti\_15rc6.xml ]

Model    Coupling Table    Options    ?

[File]	[Cruise]	[Station]	[Data]	[Convert]
				f001
2.0	20.3929	36.3412	0.0452	1.2519
2.3	20.4057	36.3408	0.0494	1.2574
2.5	20.4041	36.3443	0.0511	1.2504
2.8	20.4057	36.3409	0.0460	1.2486
3.0	20.4115	36.3415	0.0384	1.2470
3.3	20.4102	36.3428	0.0414	1.2522
3.5	20.4085	36.3428	0.0457	1.2501
3.8	20.4200	36.3396	0.0435	1.2574
4.0	20.4142	36.3452	0.0396	1.2547
4.3	20.4077	36.3413	0.0378	1.2601
4.5	20.4077	36.3424	0.0385	1.2544
4.8	20.4075	36.3437	0.0373	1.2577
5.0	20.3965	36.3481	0.0375	1.2502
5.3	20.3762	36.3502	0.0407	1.2538
5.5	20.3634	36.3515	0.0436	1.2534
5.8	20.3616	36.3503	0.0467	1.2521
6.0	20.3489	36.3547	0.0498	1.2449
6.3	20.3372	36.3574	0.0528	1.2485
6.5	20.3119	36.3660	0.0552	1.2423
6.8	20.2356	36.3883	0.0573	1.2341
7.0	20.1927	36.3885	0.0584	1.2270
7.3	20.1440	36.4016	0.0594	1.2240
7.5	20.0504	36.4244	0.0595	1.2168
7.8	19.9832	36.4472	0.0598	1.2127
8.0	19.8900	36.4792	0.0607	1.2014
8.3	19.7986	36.5105	0.0602	1.1978
8.5	19.7659	36.5218	0.0598	1.2001
8.8	19.7515	36.5270	0.0592	1.1956
9.0	19.7373	36.5421	0.0586	1.1910
9.3	19.7102	36.6108	0.0587	1.1832
9.5	19.6886	36.7516	0.0601	1.1743
9.8	19.6770	36.8372	0.0611	1.1621
10.0	19.6626	36.8877	0.0617	1.1594
10.3	19.6261	36.9386	0.0623	1.1527
10.5	19.5576	37.0260	0.0624	1.1342
10.8	19.5045	37.0766	0.0634	1.1220
11.0	19.4186	37.1081	0.0620	1.1247
11.3	19.3541	37.1466	0.0610	1.1209
11.5	19.3306	37.1804	0.0634	1.1019
11.8	19.2982	37.2198	0.0677	1.1082
12.0	19.2721	37.2316	0.0699	1.1148

Log    Info    Help

Cruise Description

Validate step

Server initialisation

XML Initialisation

Reset

+ Reference \*

Describe the references of the cruise

Cruise reference \*

F135200945009

Cruise name \*

CHACRA-2009

Ship \*

35TT - Tethys II

Location

Data Source

Archiving Centre

Type of data

Comments

Corresponding URL



# SDN

## NetCDF format

### Cruise information

- Reference
  - Name
  - Ship
- Mandatory

**▼ Reference \***  
Describe the references of the cruise

**Cruise reference \***  
FI35200945009

**Cruise name \***  
CHACCRA-2009

**Ship \***  
35TT - Tethys II

**► Type of data**

**► Comments**

**► Corresponding URL**

# **SDN** **NetCDF** **format**

## Cruise information

- Location is  
a C19  
vocabulary

### ▼ Location

Describe the location of the cruise

Start date : DD/MM/YYYY

24/05/2009

End date : DD/MM/YYYY

25/05/2009

Region

3\_1\_1 - Mediterranean Sea, Western Basin





**NetCDF**

Not Mandatory  
but  
recommended  
P07 vocab

Mandatory  
Free text

**NEW**

**Description**

* CODE	STANDARD NAME	* LONG NAME	* UNIT
ADEPZZ01 - D...	depth	Depth	Metres
PSSTZZ01 - Te...	sea_water_temperature	Temperature	Degrees Cels...
PSLTZZ01 - Pr...	sea_water_practical_salinity	Salinity	Dimensionless
ATTNZZ01 - A...		Light attenuation	per metre
CPHLM01 - ...	mass_concentration_of_c...	Chlorophylle-a	Milligrams p...

## *Upgrading of DM software*

- Download manager v1.4.4
  - Still under test
  - Next release planned on 26 May 2014
  - Able to
    - **Generate NetCDF on the fly** from data in database
    - **Reformat SDN ODV or SDN MEDATLAS files** to SDN NetCDF files on the fly
    - **Split multi-station SDN NetCDF files** into mono-station SDN NetCDF file

## Possible conversions with DM 1.4.4

### Input format:

Format at which files are stored in the data centre

### Output format:

Format at which the DM delivers the data

mono: 1 LOCAL\_CDI\_ID

multi: n LOCAL\_CDI\_IDs

Input format		Modus	Output format (always mono)
Name	Type		
CFPOINT	mono	1	CFPOINT
	multi	3	CFPOINT
MEDATLAS	mono	1	CFPOINT
			MEDATLAS
	multi	3	ODV
ODV	mono	1	CFPOINT
			ODV
	multi	3	CFPOINT
Database	--	2	ODV
	--	2	CFPOINT

## ***To deliver your files under several formats***

- It is mandatory to have all possible formats in the CDI metadata:
- var37 and var38 of MIKADO possible values:

Var 37 : Format name	Var 38: Format version
CFPOINT	1.0
MEDATLAS	2.0
ODV	0.4

## *Then formats are available for downloading*

Please motivate why you want to have access to these data sets and for what purpose.

Text 500

**Submit request list** **Reset** **Cancel request**

Switch all formats to: **Ocean Data View ASCII input (ODV)** **Switch**

CDI-record id	Dataset name	Data access restriction	Data format
<input checked="" type="checkbox"/> 36200	2010070060.ctd(00004)	SeaDataNet licence	<b>Ocean Data View ASCII input (ODV)</b>
<input checked="" type="checkbox"/> 36211	2010070060.ctd(00006)	SeaDataNet licence	<b>Ocean Data View ASCII input (ODV)</b>

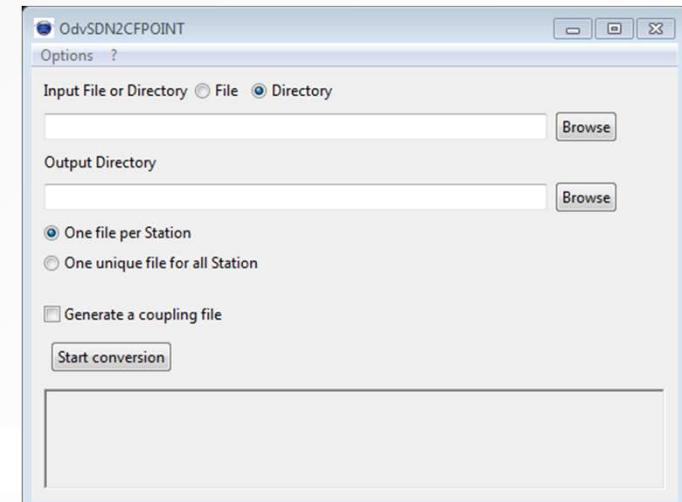
**Ocean Data View ASCII input (ODV)**

Climate and Forecast Point Data NetCDF (CFPOINT)  
MEDATLAS ASCII (MEDATLAS)  
**Ocean Data View ASCII input (ODV)**



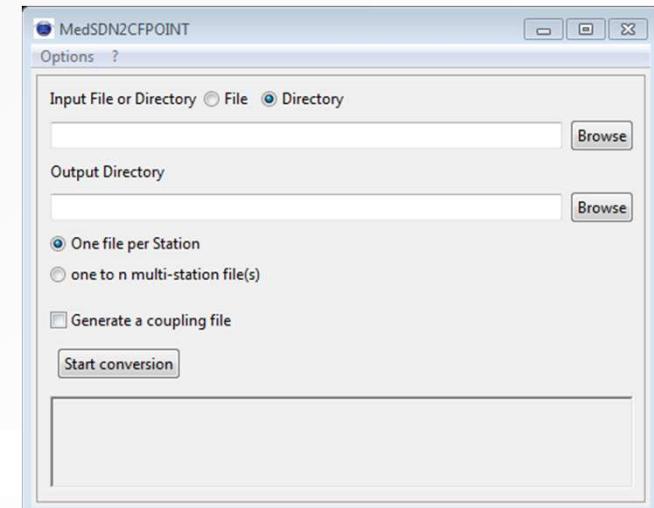
## New tools for format conversion (1)

- **OdvSDN2CFPOINT v1.0.3**
  - Converts files at **SDN ODV** format  
→ to files at **SDN NetCDF** format
    - 1, n ODV mono-station → 1,n NetCDF mono-station
    - 1 to n ODV multi-station → 1,n NetCDF mono-station
    - 1 to n ODV multi-station → 1,n NetCDF multi-station
  - Java tool, needs Java > 1.6

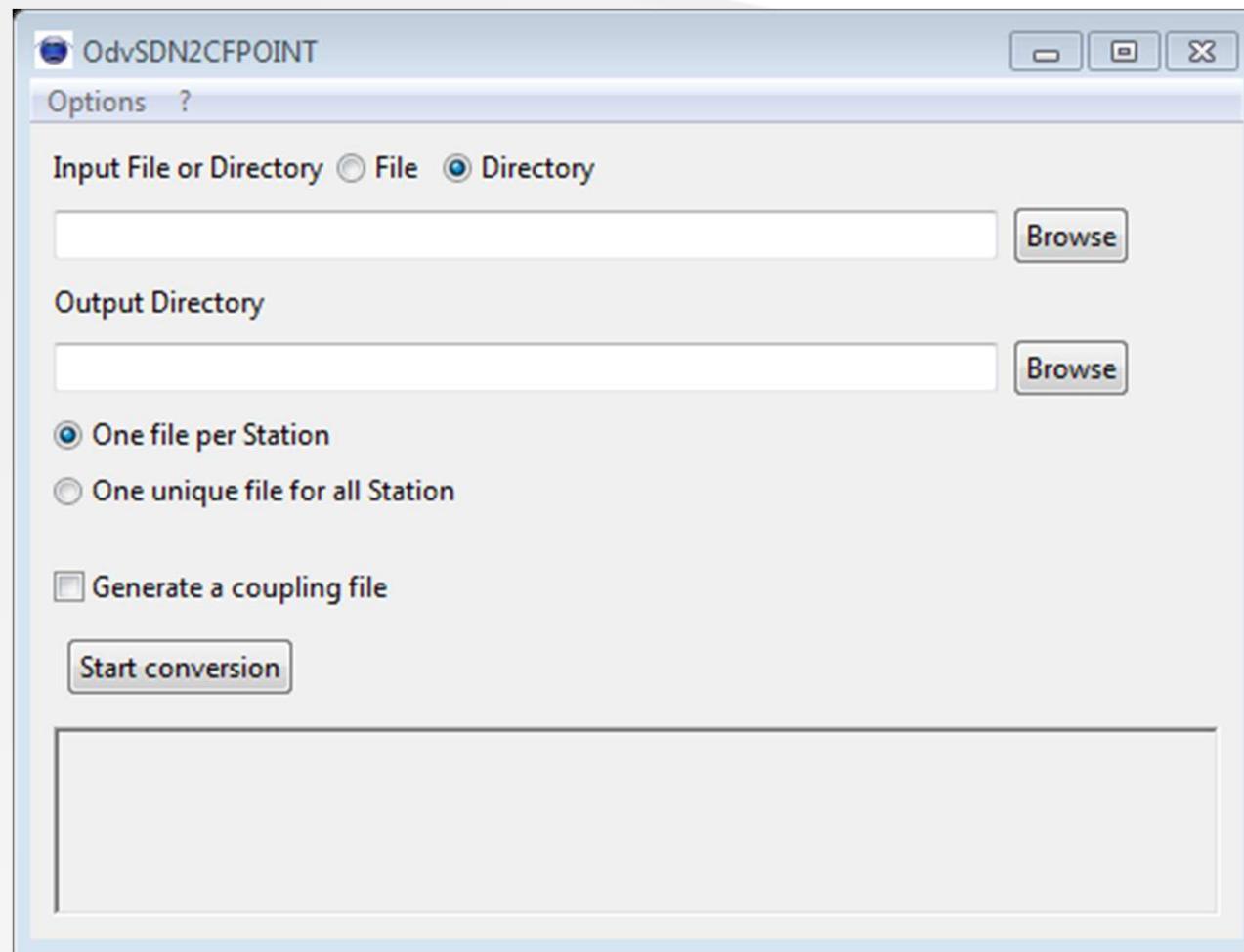


## New tools for format conversion (2)

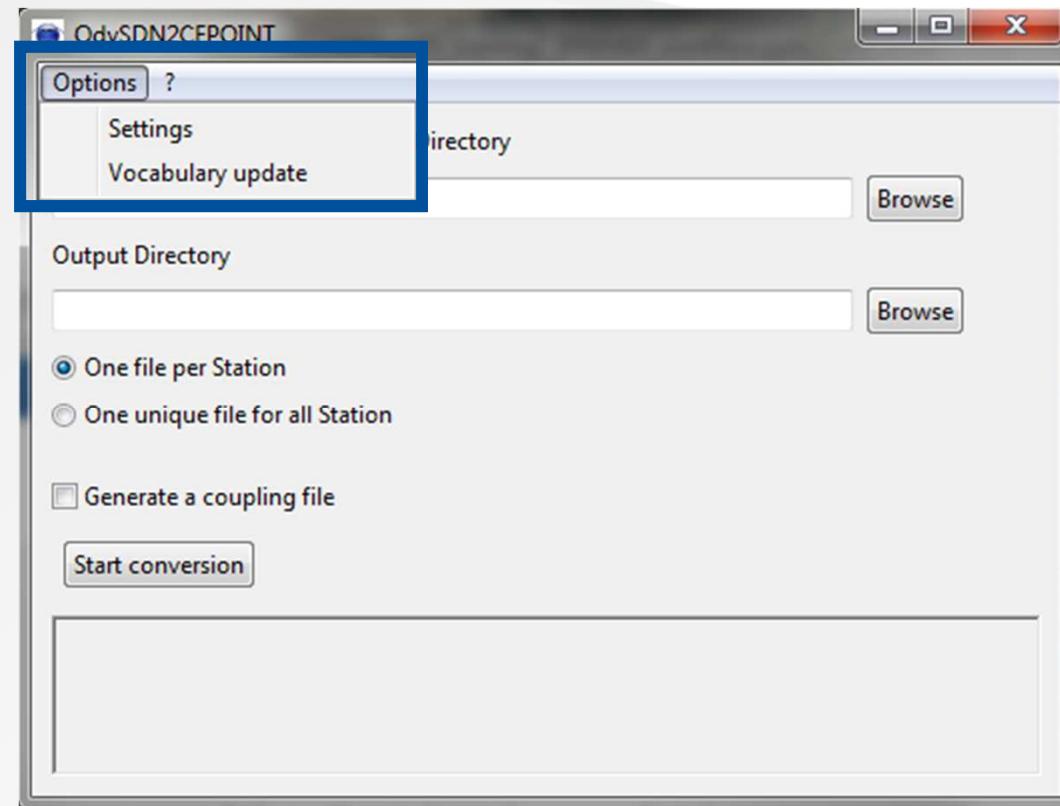
- **MedSDN2CFPOINT v1.0.4**
  - Converts files at **SDN MEDATLAS** format  
→ to files at **SDN NetCDF** format
    - 1, n MEDATLAS mono-station → 1,n NetCDF mono-station
    - 1 to n MEDATLAS multi-station → 1,n NetCDF mono-station
    - 1 to n MEDATLAS multi-station → 1,n NetCDF multi-station
  - Java tool, needs Java > 1.6



## Same user interface for the 2 tools



## Option menu





## Option - Settings

OdvSDN2CFPOINT Settings

Language

English

Use manual Proxy configuration

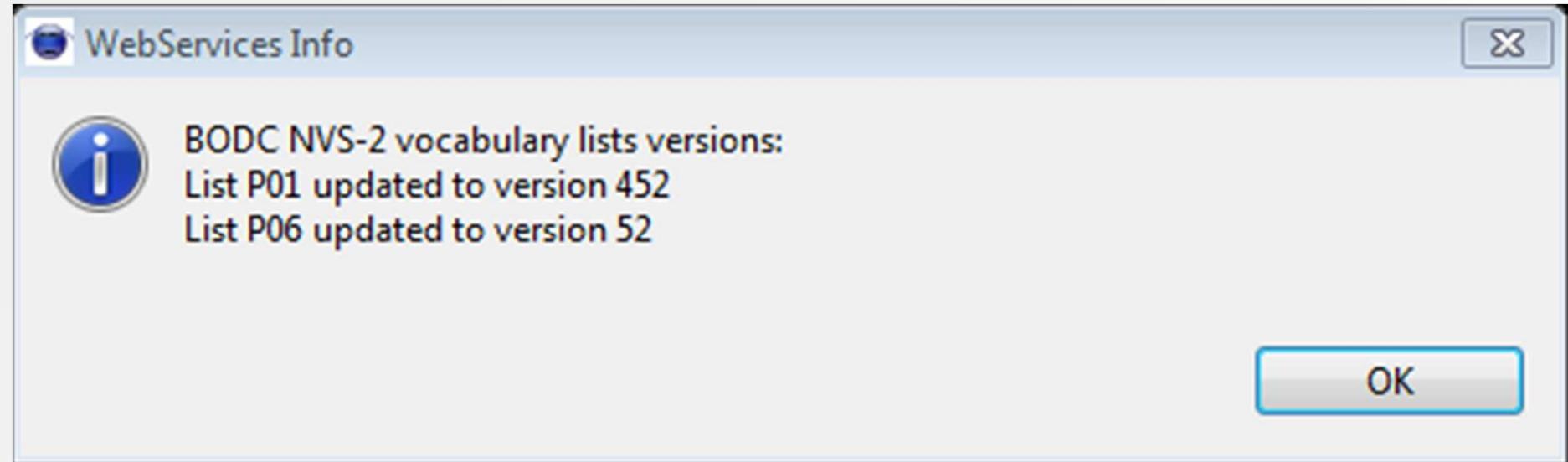
HTTP Proxy address

Login  Port

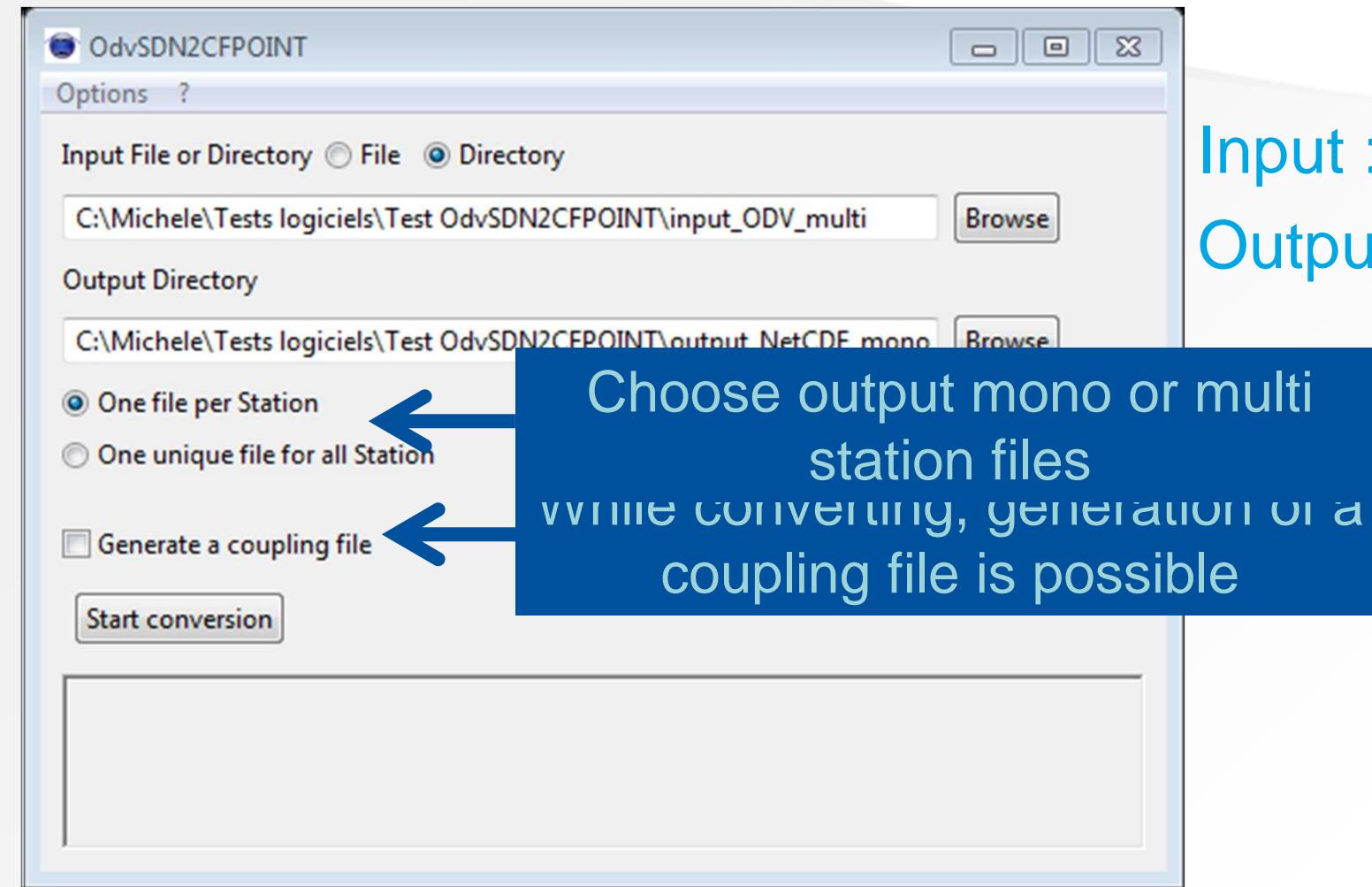
Password

**Restore Defaults** **Validate** **Cancel**

## ***Option – Vocabulary update***



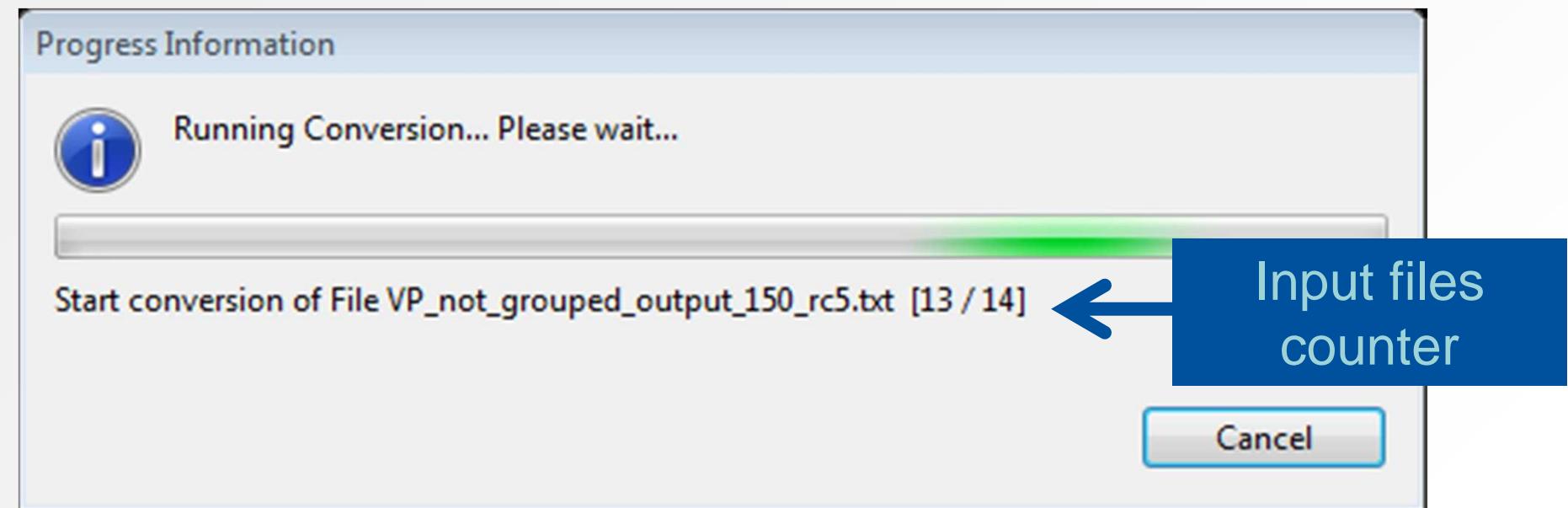
## Main screen : *input and output directories*



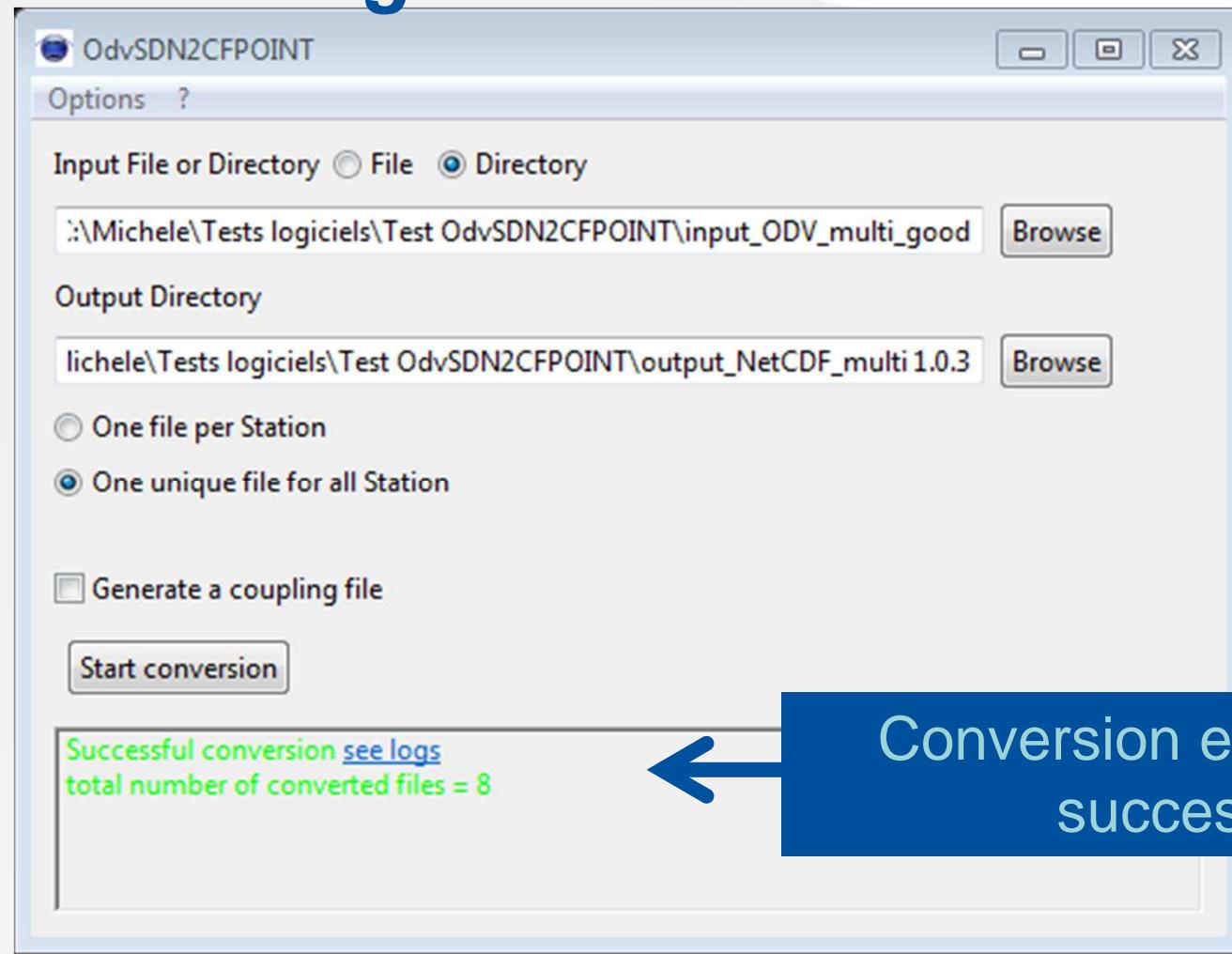
Input : ODV  
Output: NetCDF

Choose output mono or multi  
station files  
While converting, generation of a  
coupling file is possible

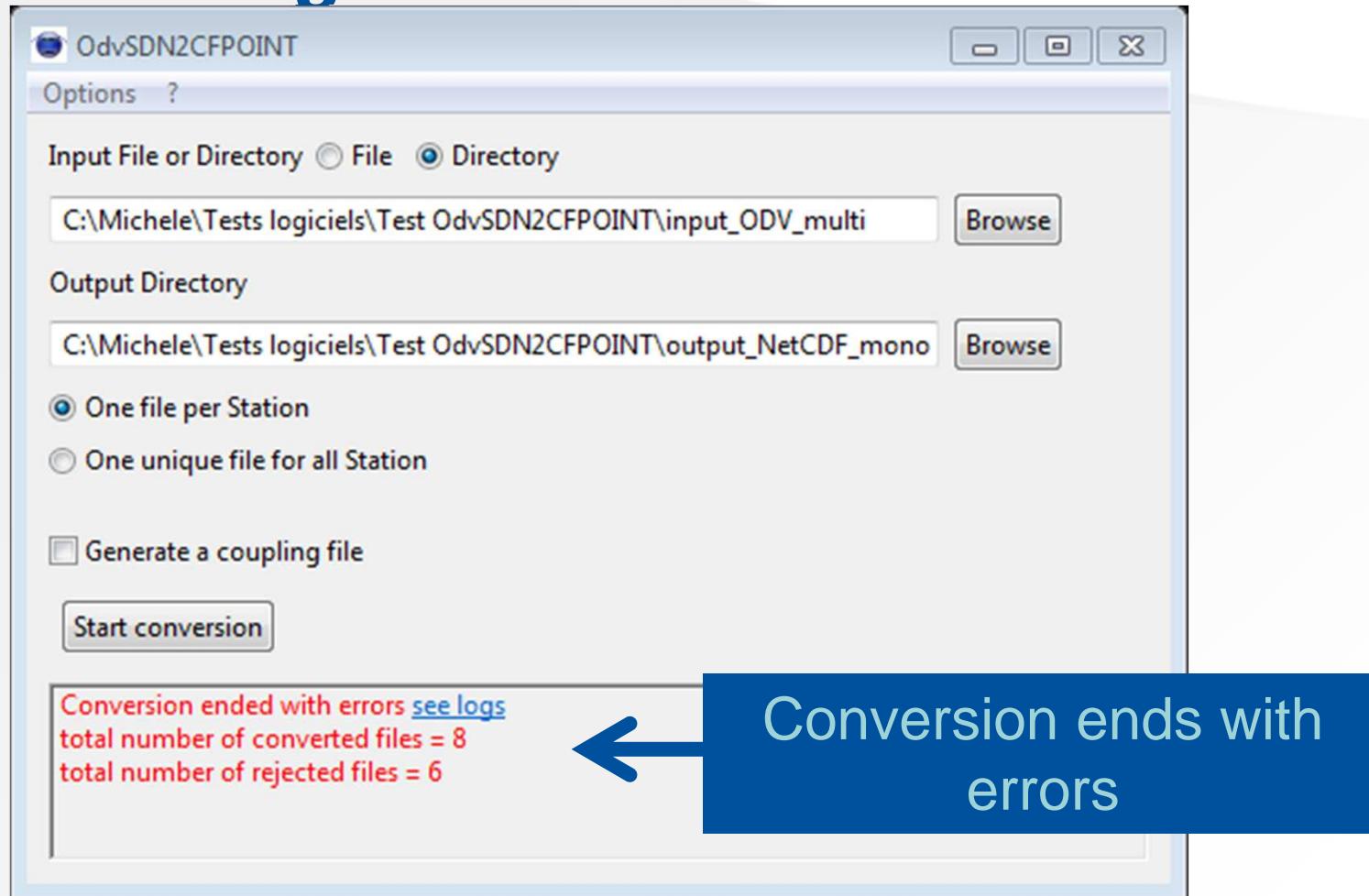
## *Running the conversion*



## Running the conversion



## Running the conversion



## See the log file : look up for **ERROR**

Odv2SDNCFPoint.log - Bloc-notes

```

Fichier Edition Format Affichage ?
OdvSDN2CFFPoint INFO - output file(s) path: C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\output_NetCDF_mono 1.0.3
OdvSDN2CFFPoint INFO - start reading input file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_Diap_output_v150_rc6.txt
OdvSDN2CFFPoint INFO - output file(s) path: C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\output_NetCDF_mono 1.0.3
OdvSDN2CFFPoint INFO - start reading input file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_FI35200945009_15rc10b_CJD.txt
OdvSDN2CFFPointLib ERROR - ERROR 30: SDN parameter object PSSTZZ01 not found in BODC list
OdvSDN2CFFPointLib ERROR - ERROR 28: Error parsing SDN parameter object
OdvSDN2CFFPointLib ERROR - ERROR 26: Error parsing semantic header, line 4
OdvSDN2CFFPointLib ERROR - Error Conversion of file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_FI35200945009_15rc10b_CJD.
OdvSDN2CFFPoint INFO - start reading input file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_FI35200945009_with_bottom_dep
OdvSDN2CFFPointLib ERROR - ERROR 30: SDN parameter object PSSTZZ01 not found in BODC list
OdvSDN2CFFPointLib ERROR - ERROR 28: Error parsing SDN parameter object
OdvSDN2CFFPointLib ERROR - ERROR 26: Error parsing semantic header, line 4
OdvSDN2CFFPointLib ERROR - Error Conversion of file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_FI35200945009_with_bottom_
OdvSDN2CFFPoint INFO - Start reading input file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_hermes1.txt
OdvSDN2CFFPoint INFO - output file(s) path: C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\output_NetCDF_mono 1.0.3
OdvSDN2CFFPoint INFO - Start reading input file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_IBTS_output_REFERENCE.txt
OdvSDN2CFFPoint INFO - output file(s) path: C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\output_NetCDF_mono 1.0.3
OdvSDN2CFFPoint INFO - Start reading input file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_not_grouped_output_150_rc5.tx
OdvSDN2CFFPoint INFO - output file(s) path: C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\output_NetCDF_mono 1.0.3
OdvSDN2CFFPoint INFO - start reading input file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_test_mona.txt
OdvSDN2CFFPointLib ERROR - ERROR 30: SDN parameter object PSSTZZ01 not found in BODC list
OdvSDN2CFFPointLib ERROR - ERROR 28: Error parsing SDN parameter object
OdvSDN2CFFPointLib ERROR - ERROR 26: Error parsing semantic header, line 4
OdvSDN2CFFPointLib ERROR - Error Conversion of file C:\Michele\Tests logiciels\Test OdvSDN2CFPOINT\input_ODV_multi\VP_test_mona.txt
OdvSDN2CFFPoint ERROR - Conversion ended with errors
OdvSDN2CFFPoint INFO - total number of converted files = 8
OdvSDN2CFFPoint INFO - total number of rejected files = 6
OdvSDN2CFFPoint INFO - ----- END CONVERSION -----

```

ERROR 30: SDN parameter object **PSSTZZ01** not found in BODC list

# *PSSTZZ01 has been deprecated*

## P01 (BODC Parameter Usage Vocabulary)

[Overview](#) | [Export subset of list](#) | [Export full list](#) | [New query](#) | Found 1 | Current | Previous | Next

ConceptID	Preferred label	Alt label	Definition	Modified
PSSTZZ01	Temperature of the water body	WC_temp	This is an obsolete term for this definition. Use TEMPPR01 instead	3/26/2014 15:22:08

[Overview](#) | [Export subset of list](#) | [Export full](#)  | [New query](#) | Found 1 | Current | Previous | Next

It is recommended to use TEMPPR01 in stead of  
PSSTZZ01

