



SeaDataCloud

OCTOPUS, SDN formats conversion software

Michèle Fichaut

SeaDataCloud 1st training session, Ostende, Belgium, 20-27 June 2018

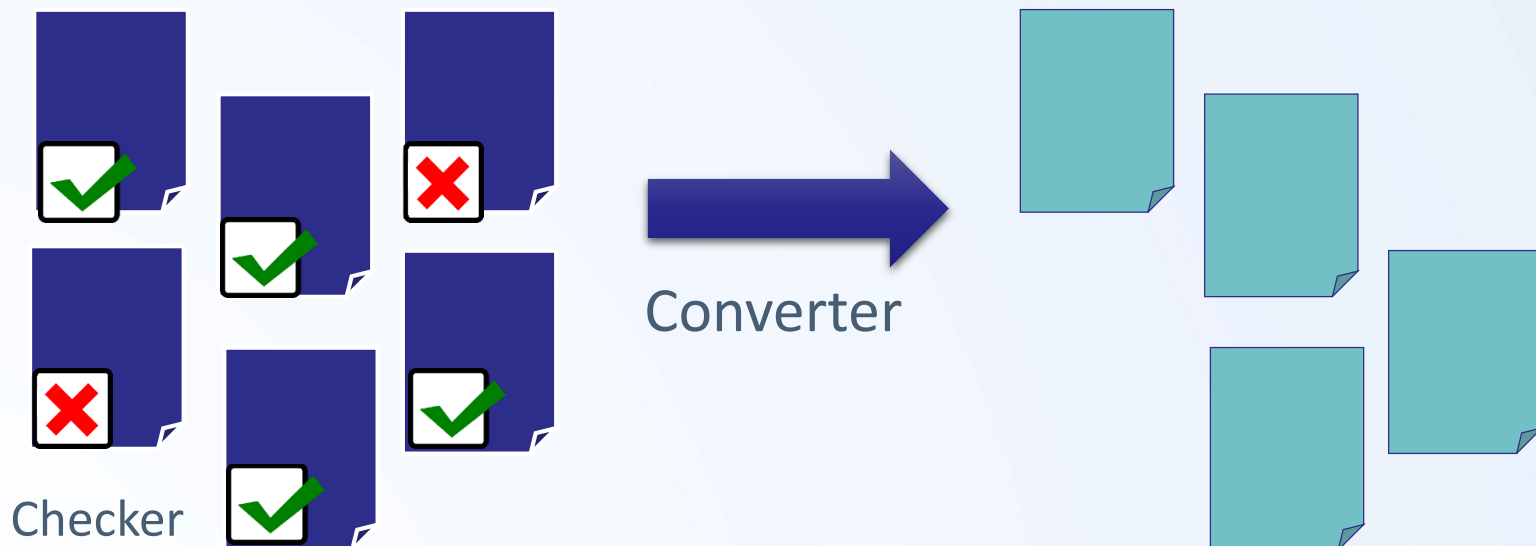
sdn-userdesk@seadatanet.org – www.seadatanet.org

Summary

- Reminder on OCTOPUS, and all its functions
- Releases of Octopus
- New developments
- Next release
- Detailed presentations of the functions

OCTOPUS, main functions

- for SeaDataNet data files: checker, converter



Data files at one SDN format
(multi and/or mono station)

Data files at one SDN format
(multi and/or mono station)

OCTOPUS, additional functions



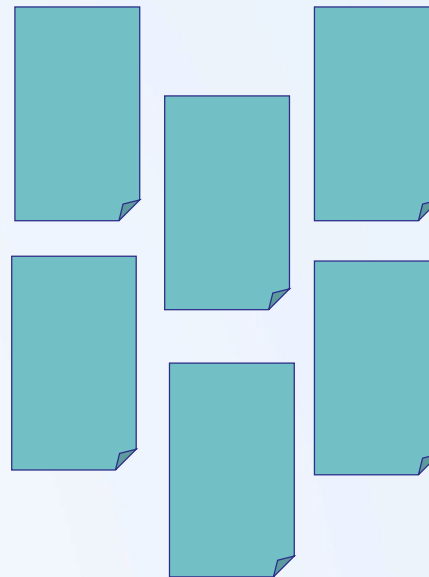
- Split multistation file in monostation ones



Multistation data file
at one SDN format

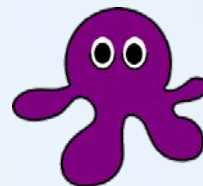


Splitter

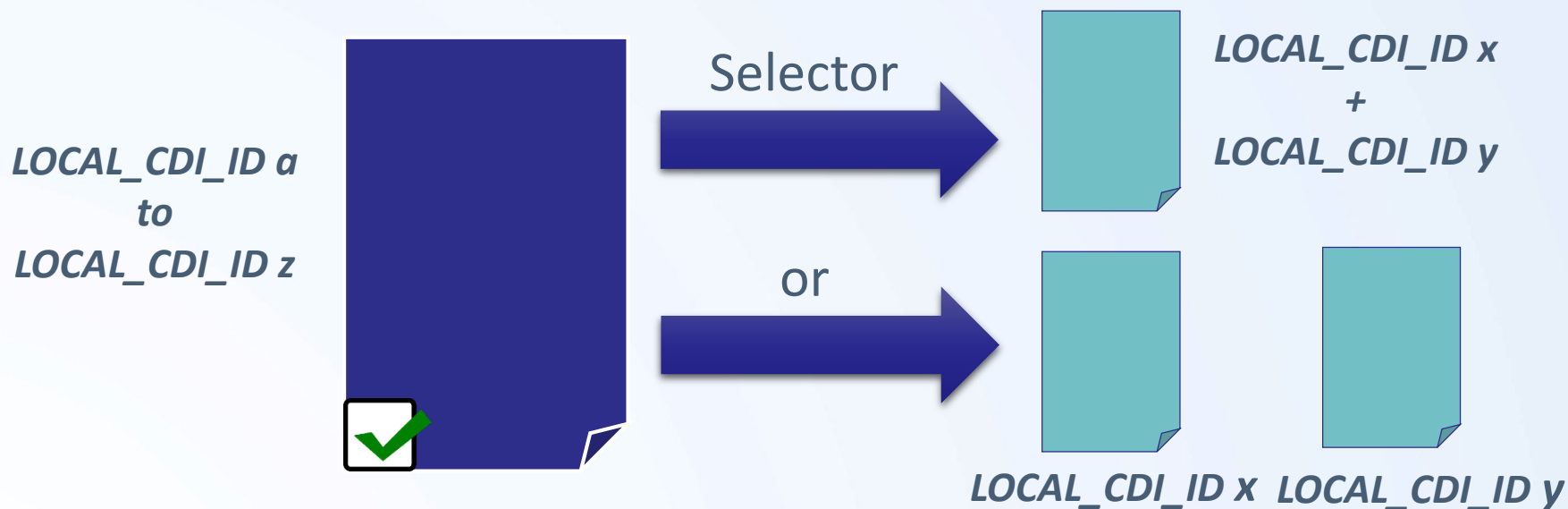


Monostation data files at
one SDN format

OCTOPUS, additional functions



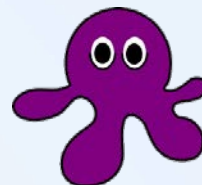
- Selector of LOCAL_CDI_ID(s)



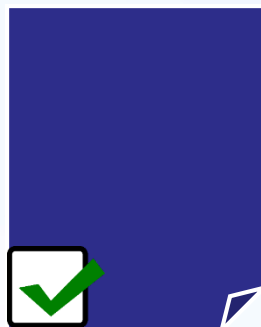
Multistation data file at
one SDN format

Multistation or
Monostation data files at
one SDN format with the
selected LOCAL_CDI_IDs

OCTOPUS, additional functions



- Conversion of MGD files to SDN ODV format
 - Magnetism, Gravity and Depth



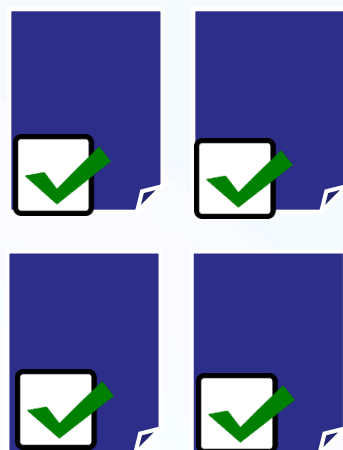
ASCII MGD
V81 and V98



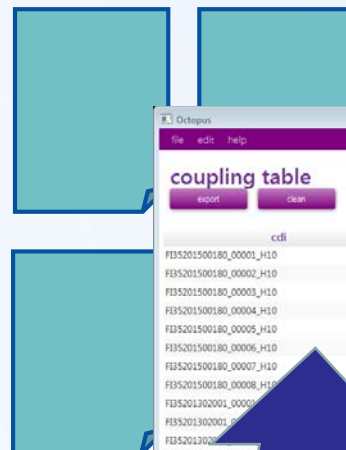
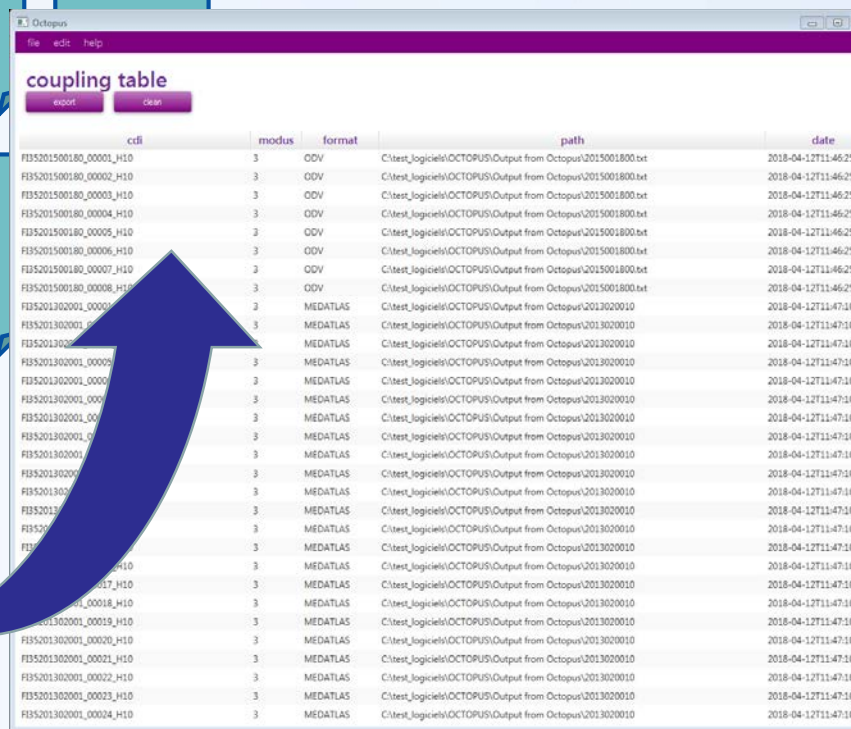
MGD file at SDN
ODV format

OCTOPUS, additional functions

- While converting OCTOPUS can generate the the coupling table for SDN, on demand



Converter

cdi	modus	format	path	date
F35201500180_00001_H10	3	ODV	C:\test_logiciels\OCTOPUS\Output from Octopus\2015001800.txt	2018-04-12T11:46:21
F35201500180_00002_H10	3	ODV	C:\test_logiciels\OCTOPUS\Output from Octopus\2015001800.txt	2018-04-12T11:46:21
F35201500180_00003_H10	3	ODV	C:\test_logiciels\OCTOPUS\Output from Octopus\2015001800.txt	2018-04-12T11:46:21
F35201500180_00004_H10	3	ODV	C:\test_logiciels\OCTOPUS\Output from Octopus\2015001800.txt	2018-04-12T11:46:21
F35201500180_00005_H10	3	ODV	C:\test_logiciels\OCTOPUS\Output from Octopus\2015001800.txt	2018-04-12T11:46:21
F35201500180_00006_H10	3	ODV	C:\test_logiciels\OCTOPUS\Output from Octopus\2015001800.txt	2018-04-12T11:46:21
F35201500180_00007_H10	3	ODV	C:\test_logiciels\OCTOPUS\Output from Octopus\2015001800.txt	2018-04-12T11:46:21
F35201500180_00008_H10	3	ODV	C:\test_logiciels\OCTOPUS\Output from Octopus\2015001800.txt	2018-04-12T11:46:21
F35201302001_00001_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00002_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00003_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00004_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00005_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00006_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00007_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00008_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00009_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00010_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00011_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00012_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00013_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00014_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00015_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00016_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00017_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00018_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00019_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00020_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00021_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00022_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00023_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11
F35201302001_00024_H10	3	MEDATLAS	C:\test_logiciels\OCTOPUS\Output from Octopus\2013020010.txt	2018-04-12T11:47:11

Creation of corresponding records in the coupling table

OCTOPUS releases

- OCTOPUS 1.2 in January 2017
- OCTOPUS 1.3.9 in July 2017
 - Improvement of log messages
 - Management of deprecated vocab terms
- OCTOPUS 1.4.0 in March 2018

New developments ➔ 1.4.0

- Major release
 - New format conversion: SDN netCDF to SDN ODV
 - New SDN netCDF format checker
 - Major improvement of SDN ODV format checker
 - Batch mode available for format checkers

New developments ➔ 1.4.0

- New conversion

input→ output ↓	Med non SDN	Med SDN	ODV	netCDF- <u>CFPoint</u>	MGDv81	MGDv98
<u>MedSDN</u>	✓	✓	✗	✗	✗	✗
ODV	✓	✓	✓	✓	✓	✓
netCDF - <u>CFPoint</u>	✓	✓	✓	✓	✗	✗

New developments → 1.4.0

- ODV format checker upgraded
 - 49 checks implemented
 - Listed in FAQ Octopus with the corresponding error
 - Help for users to correct their files

MY ODV FILE CAN BE OPENED WITH ODV, BUT IS DETECTED WITH ERRORS BY THE FORMAT CONVERTERS

I HAVE ERRORS DETECTED WHEN I CHECK/CONVERT MY ODV FILES

The document below lists all checks and corresponding errors in ODV files, it will help you to correct your file.

ODV FORMAT CHECKS AND CORRESPONDING ERRORS

 [DOWNLOAD \(151.7 KB\)](#)

I HAVE ERRORS DETECTED WHEN I CHECK/CONVERT MY NETCDF FILES

New developments → 1.4.0

- FAQ = ODV checks and corresponding errors

N°	Check	Type	Message
14	Comparison of the column headers for variables and the number of SDN_Mapping lines	Error	expected xx columns, found yy columns in line expected parameter <code>, but found <othercode> ERROR 34: Error parsing Column header row, line xx
26	Column Longitude [degrees_east] exists	Error	Error on column header: 5th column name shall be Longitude [degrees_east] ERROR 34: Error parsing Column header row, line xx

New developments → 1.4.0

- New netCDF format checker
 - 243 checks implemented
 - Listed in FAQ Octopus with the corresponding error
 - Help for users to correct their files

I HAVE ERRORS DETECTED WHEN I CHECK/CONVERT MY ODV FILES

I HAVE ERRORS DETECTED WHEN I CHECK/CONVERT MY NETCDF FILES

The document below lists all checks and corresponding errors in netCDF files, it will help you to correct your file.

NETCDF FORMAT CHECKS AND CORRESPONDING ERRORS



[DOWNLOAD \(26.77 KB\)](#)

New developments → 1.4.0

- FAQ = netCDF checks and corresponding errors

N°	Check	Type	Message
1	Global attribute 'Conventions' is present	Error	[global attributes] Mandatory global attribute 'Conventions' not found.
1a	Global attribute 'Conventions' value contains 'SeaDataNet_1.0' and 'CF1.6'	Error	[global attributes] Mandatory global attribute 'Conventions' value is not valid:<value> (expecting string containing : SeaDataNet_1.0 CF 1.6)
11e	SDN_BOT_DEPTH units attribute is present	Error	[attributes] Variable <varName> : Mandatory attribute <attributeName> not found.

OCTOPUS user manual

- User manual is provided on line on SeaDataNet website:
<https://www.seadatanet.org/Software/OCTOPUS>
- Available also on this page
 - FAQ
 - a presentation of OCTOPUS and the corresponding video

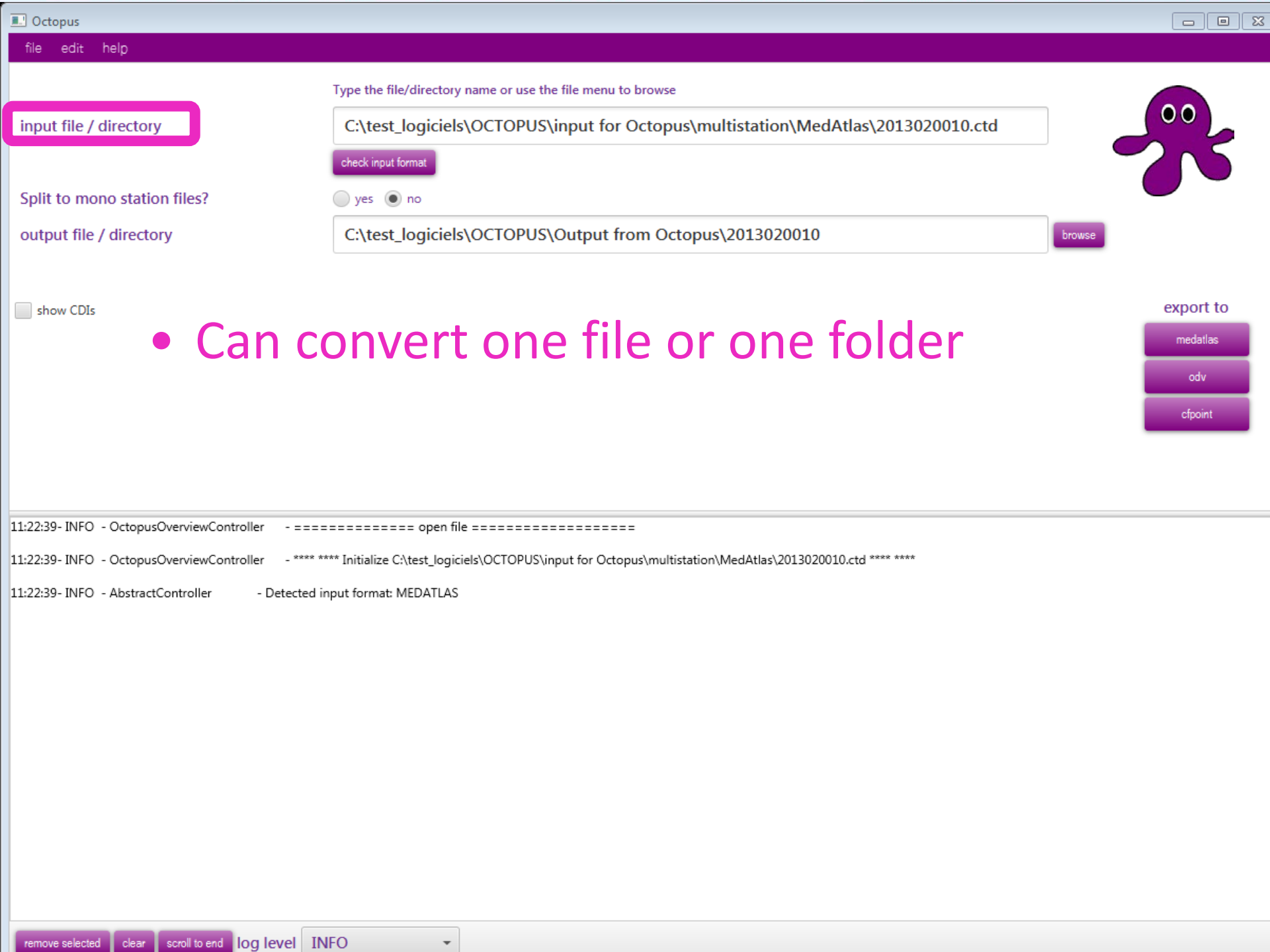
New developments → 1.4.0

- Checkers can be run in batch mode
 - Check a file or a directory
- ```
java -jar octopus.jar -i <input file/directory> -check
```
- Add creation info in the output file: “*Generated by Octopus <version> <date>*”
  - Automatic default output file name and extension
  - Warning on Octopus version
  - Check of CSR reference in CSR catalogue

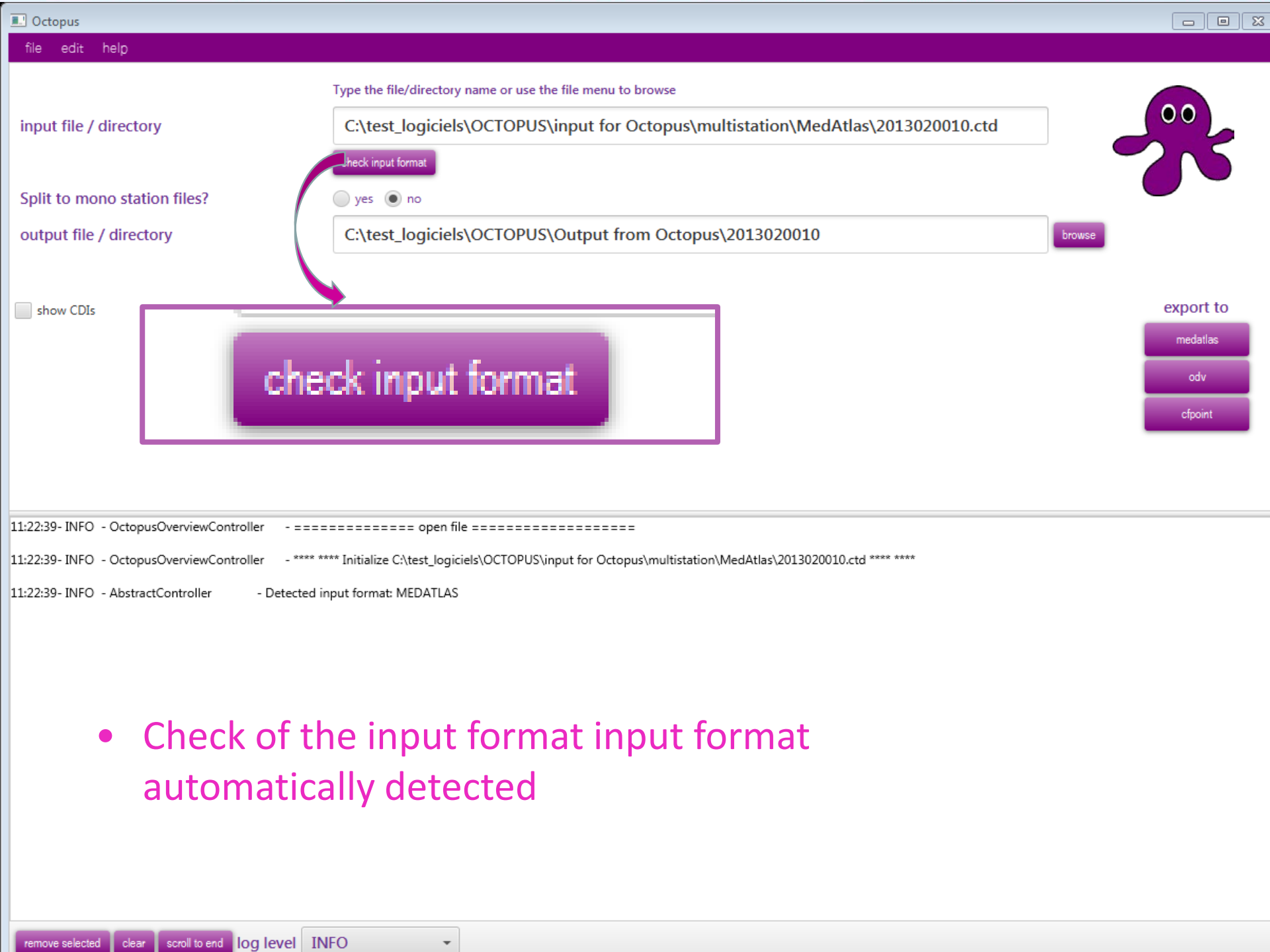


## Next release and plans

- Will focus on the development of conversions and checks to the other SeaDataNet formats designed specifically for
    - Biological data
    - Microlitter data
    - Flow cytometry data
  - Checks results will be available in JSON format, in a dedicated file (one per check batch). The JSON format will be documented so that a third party software can read the results
- ➔ The Octopus functions are available in the cloud for **automatic checking** of the files uploaded by the Replication Manager (RM) and also for **the transformation services**



- Can convert one file or one folder



- Check of the input format input format automatically detected

Octopus

file edit help

Type the file/directory name or use the file menu to browse

input file / directory

C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

check input format

yes no

Split to mono station files?

output file / directory

C:\test\_logiciels\OCTOPUS\Output from Octopus\2013020010

browse


show CDIs

export to

medatlas

odv

cfpoint



11:22:39- INFO - OctopusOverviewController - ===== open file =====

11:22:39- INFO - OctopusOverviewController - \*\*\*\*\* Initialize C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd \*\*\*\*\*

11:22:39- INFO - AbstractController - Detected input format: MEDATLAS

11:34:31- INFO - AbstractController - check file: 2013020010.ctd

11:34:33- INFO - MetadataReader - read file: C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

11:34:34- INFO - AbstractController - [OK] Format is valid. Detected format is MEDATLAS.

- If format OK, green message

Octopus

file edit help

Type the file/directory name or use the file menu to browse

input file / directory

C:\test\_logiciels\OCTOPUS\input for Octopus\Tests ODV toutes erreurs\Test17\_PV\_xFS351!

check input format

Split to mono station files?

yes no

output file / directory

C:\test\_logiciels\OCTOPUS\Output from Octopus\Test17\_PV\_xFS35199420813

browse

show CDIs

export to

medailles

odv

cfpoint

11:52:24- INFO - AbstractController - check file: Test17\_PV\_xFS35199420813.txt



- error on parameter TEMP line 23: [BODC Vocab error] The BODC term "xTEMPPU01" does not exist in list P01.
- [BODC Vocab error] The BODC term "xTEMPPU01" does not exist in list P01.
- ERROR 26: Error parsing semantic header, line 23. Check that the semantic descriptions are terminated by an e
- ERROR 26: Error parsing semantic header, line 23. Check that the semantic descriptions are terminated by a
- Invalid file C:\test\_logiciels\OCTOPUS\input for Octopus\Tests ODV toutes erreurs\Test17\_PV\_xFS35199420813.txt

Octopus

fileedithelp

input file / directory

Type the file/directory name or use the file menu to browse

C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

check input format

☐ yes ☒ no

Split to mono station files?

output file / directory

C:\test\_logiciels\OCTOPUS\Output from Octopus\2013020010

browse

☐ show CDIs

export to

medatlas

odv

cfpoint

Split to mono station files?

☐ yes ☒ no

11:22:39- INFO - OctopusOverviewController - ===== open file =====

11:22:39- INFO - OctopusOverviewController - \*\*\*\* Initialize C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd \*\*\*\*

11:22:39- INFO - AbstractController - Detected input format: MEDATLAS

remove selected

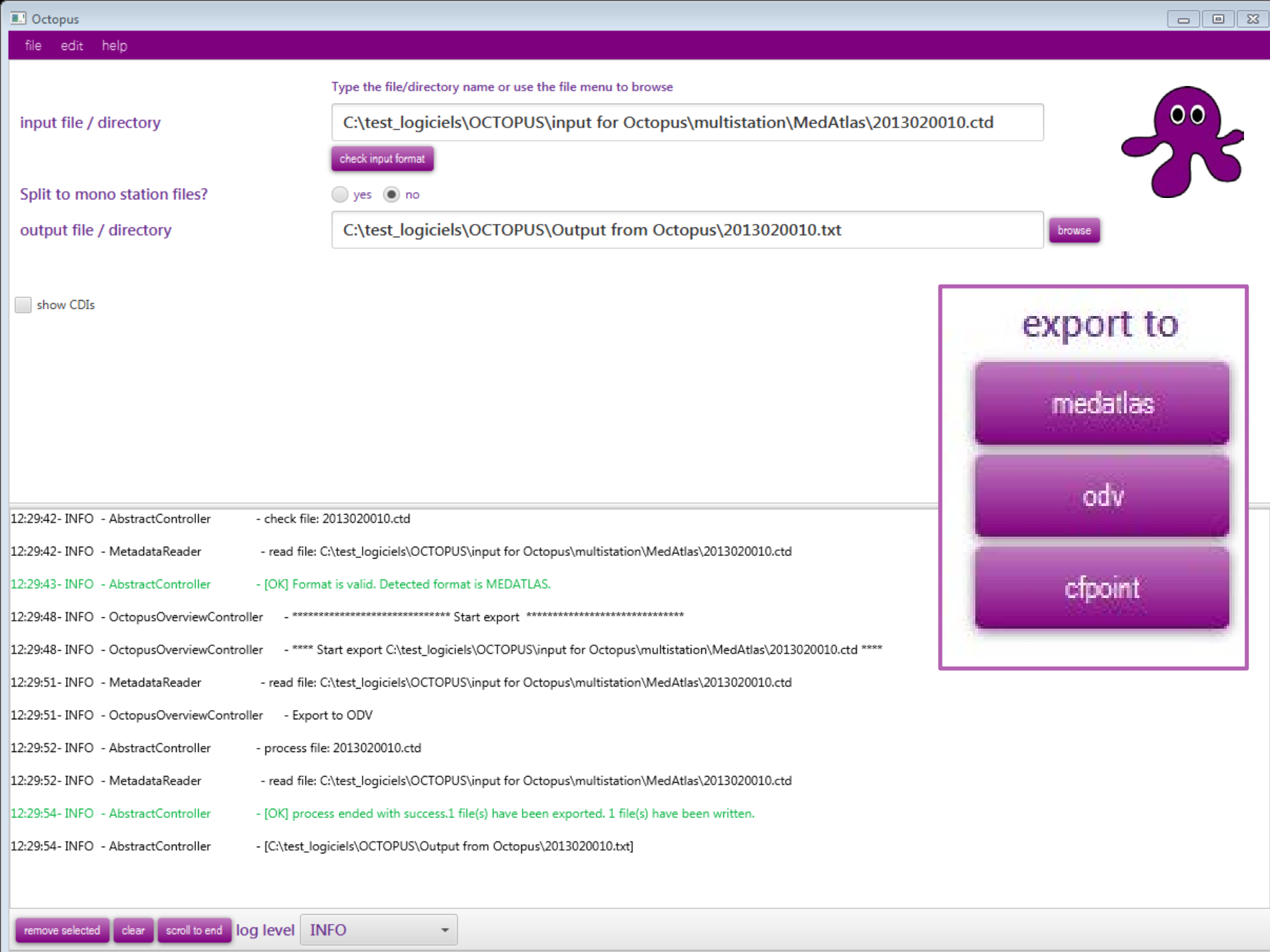
clear

scroll to end

log level

INFO

- Choose to split Multistation file into Monostation files (no is the default value)



input file / directory

Type the file/directory name or use the file menu to browse

C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

check input format

Split to mono station files?

☐ yes ☒ no

output file / directory

C:\test\_logiciels\OCTOPUS\Output from Octopus\2013020010.txt

browse

☐ show CDIs

export to

medatlas

odv

cfpoint

12:29:42- INFO - AbstractController - check file: 2013020010.ctd

12:29:42- INFO - MetadataReader - read file: C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

12:29:43- INFO - AbstractController - [OK] Format is valid. Detected format is MEDATLAS.

12:29:48- INFO - OctopusOverviewController - \*\*\*\*\* Start export \*\*\*\*\*

12:29:48- INFO - OctopusOverviewController - \*\*\*\* Start export C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd \*\*\*\*

12:29:51- INFO - MetadataReader - read file: C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

12:29:51- INFO - OctopusOverviewController - Export to ODV

12:29:52- INFO - AbstractController - process file: 2013020010.ctd

12:29:52- INFO - MetadataReader - read file: C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

12:29:54- INFO - AbstractController - [OK] process ended with success.1 file(s) have been exported. 1 file(s) have been written.

12:29:54- INFO - AbstractController - [C:\test\_logiciels\OCTOPUS\Output from Octopus\2013020010.txt]

remove selected

clear

scroll to end

log level

INFO

Octopus

fileedithelp

input file / directory

Type the file/directory name or use the file menu to browse

C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

check input format


☐ yes ☒ no

output file / directory

C:\test\_logiciels\OCTOPUS\Output from Octopus\2013020010.txt

browse

☐ show CDIs



export to

medatlas

adv

cfpoint

☐ show CDIs

- Extract CDIs from the input file

remove selectedclearscroll to end

log level

INFO



Octopus

fileedithelp

Type the file/directory name or use the file menu to browse

input file / directory

C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

check input format

Split to mono station files?

yes

no

output file / directory

C:\test\_logiciels\OCTOPUS\Output from Octopus\2013020010.txt

browse

show CDIs

| CDI                                                         |
|-------------------------------------------------------------|
| <input checked="" type="checkbox"/> FI35201302001_00001_H10 |
| <input checked="" type="checkbox"/> FI35201302001_00002_H10 |
| <input checked="" type="checkbox"/> FI35201302001_00003_H10 |
| <input checked="" type="checkbox"/> FI35201302001_00005_H10 |
| <input checked="" type="checkbox"/> FI35201302001_00006_H10 |
| <input checked="" type="checkbox"/> FI35201302001_00007_H10 |

export to

medatlas

odv

cfpoint

12:33:12- INFO - MetadataReader

- read file: C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

remove selected

clear

scroll to end

log level

INFO

• List all CDIs of the input file

Octopus

file edit help

Type the file/directory name or use the file menu to browse

input file / directory

C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

check input format

Split to mono station files?

☐ yes ☒ no

output file / directory

C:\test\_logiciels\OCTOPUS\Output from Octopus\2013020010.txt

browse

☒ show CDIs


|                                     | CDI                     |
|-------------------------------------|-------------------------|
| <input type="checkbox"/>            | FI35201302001_00001_H10 |
| <input checked="" type="checkbox"/> | FI35201302001_00002_H10 |
| <input type="checkbox"/>            | FI35201302001_00003_H10 |
| <input type="checkbox"/>            | FI35201302001_00005_H10 |
| <input checked="" type="checkbox"/> | FI35201302001_00006_H10 |
| <input type="checkbox"/>            | FI35201302001_00007_H10 |

export to

medatlas

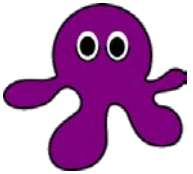
odv

cfpoint

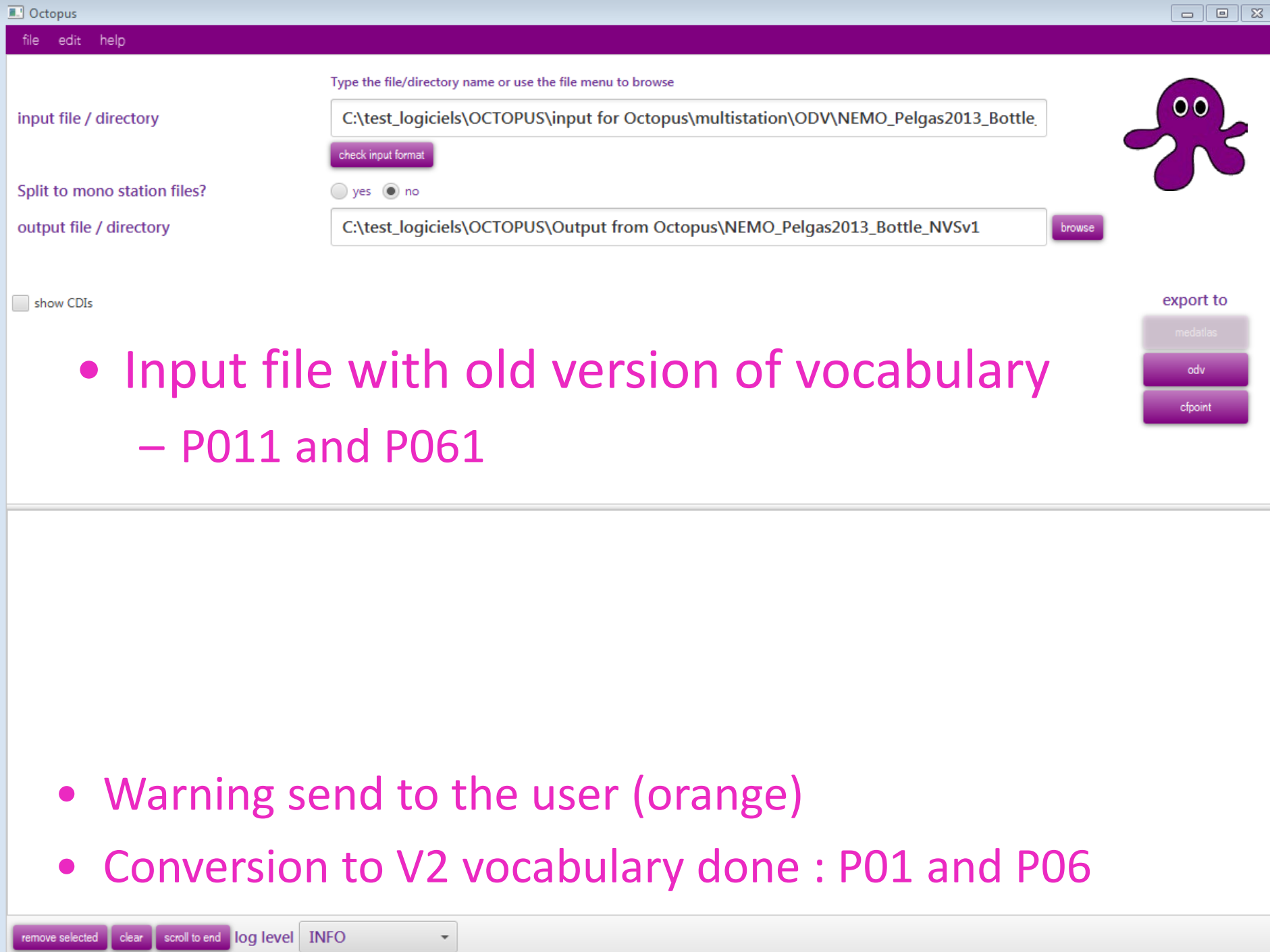


12:33:12- INFO - MetadataReader - read file: C:\test\_logiciels\OCTOPUS\input for Octopus\multistation\MedAtlas\2013020010.ctd

- Select the CDIs that you need to extract



- Only the 2 stations selected are extracted



- Input file with old version of vocabulary  
– P011 and P061

- Warning send to the user (orange)
- Conversion to V2 vocabulary done : P01 and P06



## OCTOPUS in batch mode for check

- *java -jar octopus.jar [-i <arg>] -check*

---

|          |           |                              |
|----------|-----------|------------------------------|
| -i <arg> | Mandatory | input path: </home/user/...> |
|----------|-----------|------------------------------|

---

|        |          |                                       |
|--------|----------|---------------------------------------|
| -check | Optional | To check the files without conversion |
|--------|----------|---------------------------------------|

---



# OCTOPUS in batch mode for conversion

- `java -jar octopus.jar [-c <arg>] [-f <arg>] [-i <arg>] [-l <arg>] [-o <arg>] [-t <arg>]`

|                       |                        |                                                                                                        |
|-----------------------|------------------------|--------------------------------------------------------------------------------------------------------|
| <b>-c &lt;arg&gt;</b> | Optional               | list of local_cdi_id, eg <FI35AAB, FI35AAC>, all cdi are exported if this argument is omitted          |
| <b>-f &lt;arg&gt;</b> | Mandatory              | output format: <medatlas>, <odv> or <cfpoint>                                                          |
| <b>-i &lt;arg&gt;</b> | Mandatory              | input path: </home/user/...>                                                                           |
| <b>-l &lt;arg&gt;</b> | Mandatory              | if local CDI Id value if input is a file, mapping file is input is MGD input is a directory (see §5.5) |
| <b>-o &lt;arg&gt;</b> | Mandatory              | output path (file or directory): </home/user/...>                                                      |
| <b>-t &lt;arg&gt;</b> | Mandatory              | output type: <split> or <keep>                                                                         |
|                       | except if input is MGD |                                                                                                        |

Thank you  
for your  
attention





# SeaDataCloud

## Hands-on session

SeaDataCloud 1st training session, Ostende, Belgium, 20-27 June 2018

[sdn-userdesk@seadatanet.org](mailto:sdn-userdesk@seadatanet.org) – [www.seadatanet.org](http://www.seadatanet.org)



# Objectives

## Be trained on the OCTOPUS software

- Test all the functions
- Work on the file previously created using NEMO
- Find errors in data files

## Time permitting:

- Work on your own files

## Step 1: Insert the OCTOPUS settings

1. Menu ***edit> settings***
2. Set your **EDMO code** (only used for conversion MGD77 and none SDN MedAtlas files)
3. Default input and output directories
4. Coupling table prefix, if you want to use the coupling table function

Octopus

file edit help

Settings

SeaDataCloud 1st training session, Ostende, Belgium, 20-27 June 2018

language: uk theme: octopus

EDMO Code: 486 - IFREMER / IDM / SISMER - Scientific Information Systems for the SEA choose

default directories:

input ... C:\Hands-on\OCTOPUS\input for Octopus

output ... C:\Hands-on\OCTOPUS\output from Octopus

☒ use coupling table

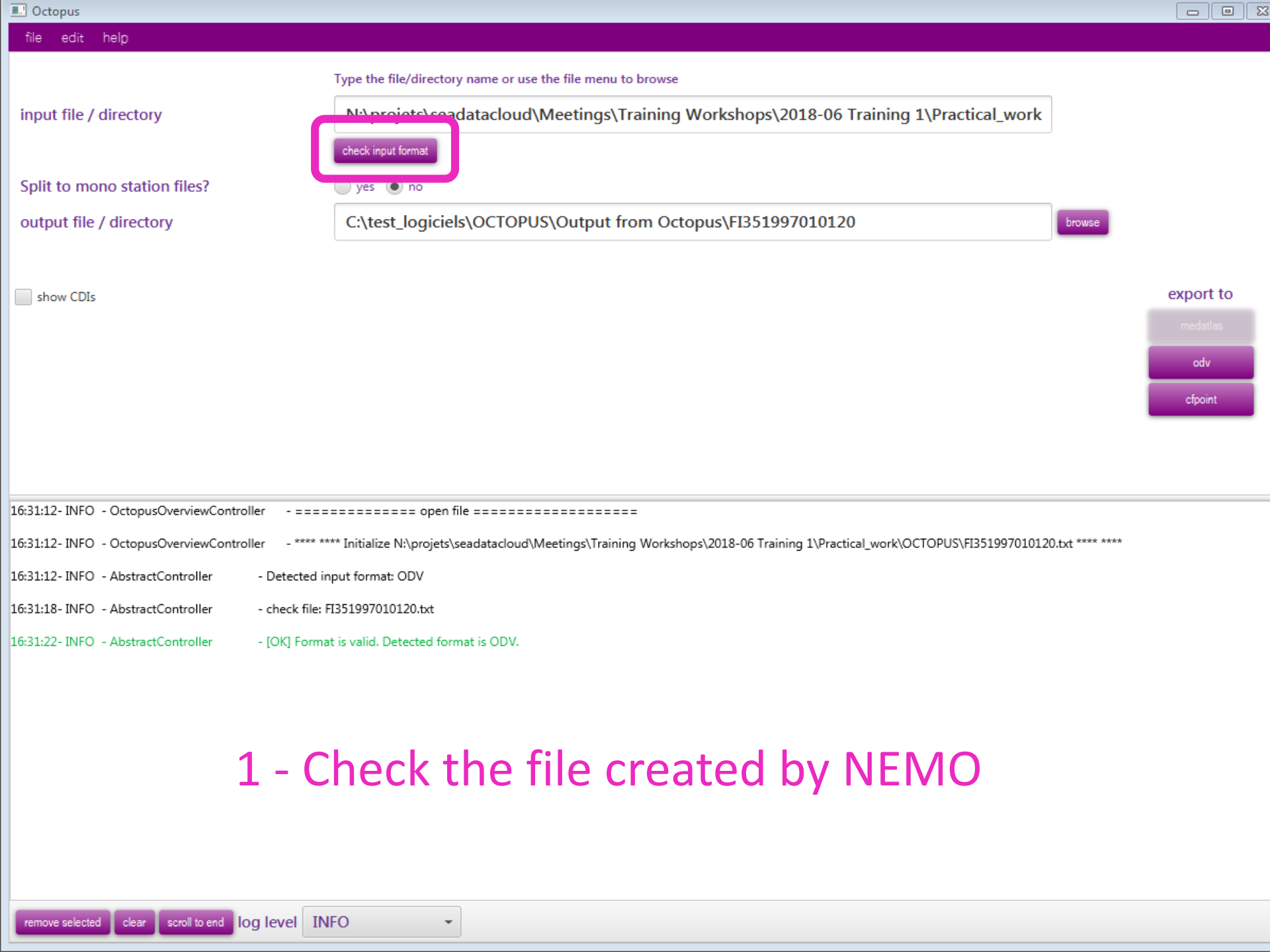
prefix ... C:\Hands-on\OCTOPUS\output from Octopus

update Lists

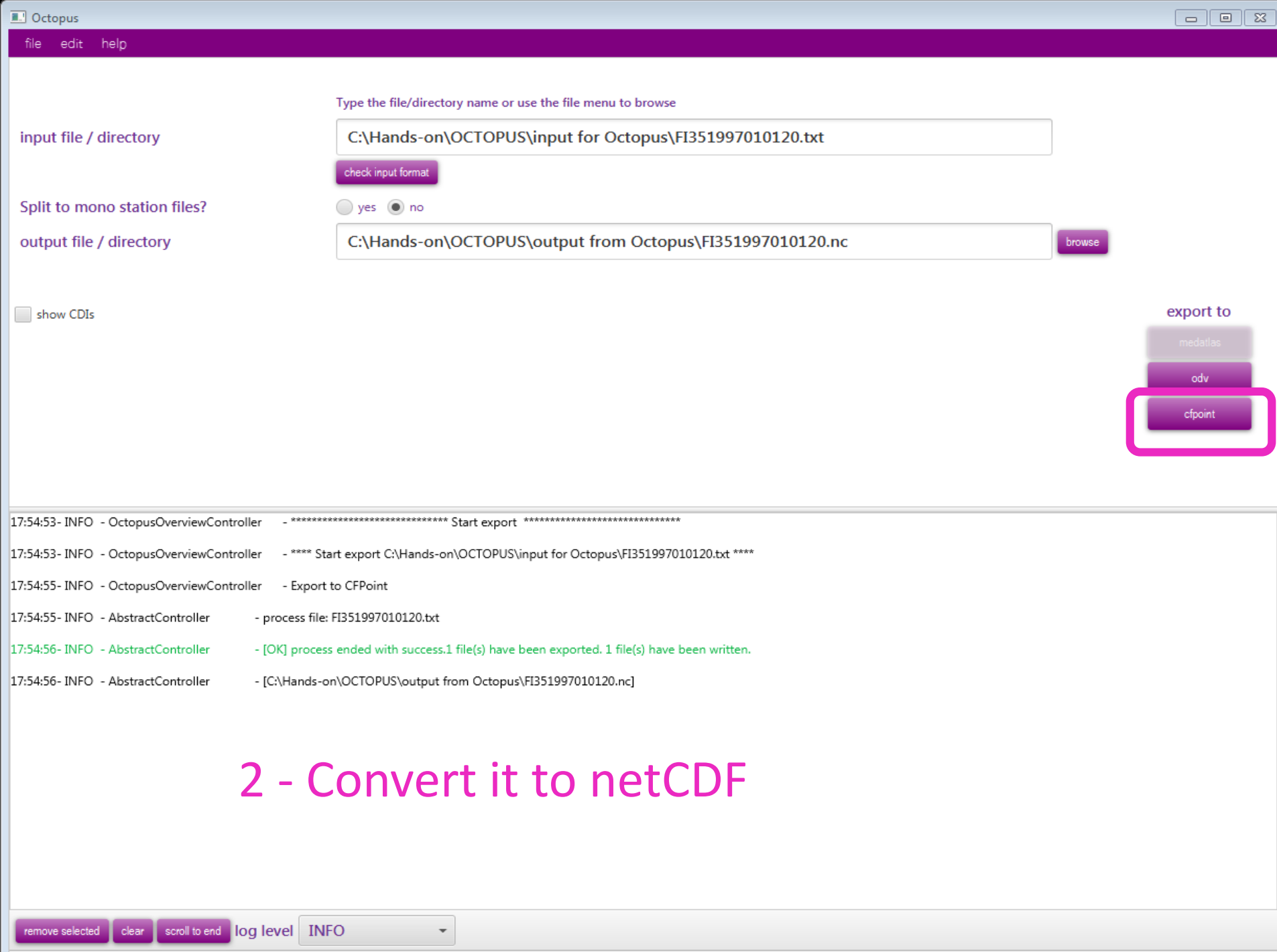
Insert the OCTOPUS settings

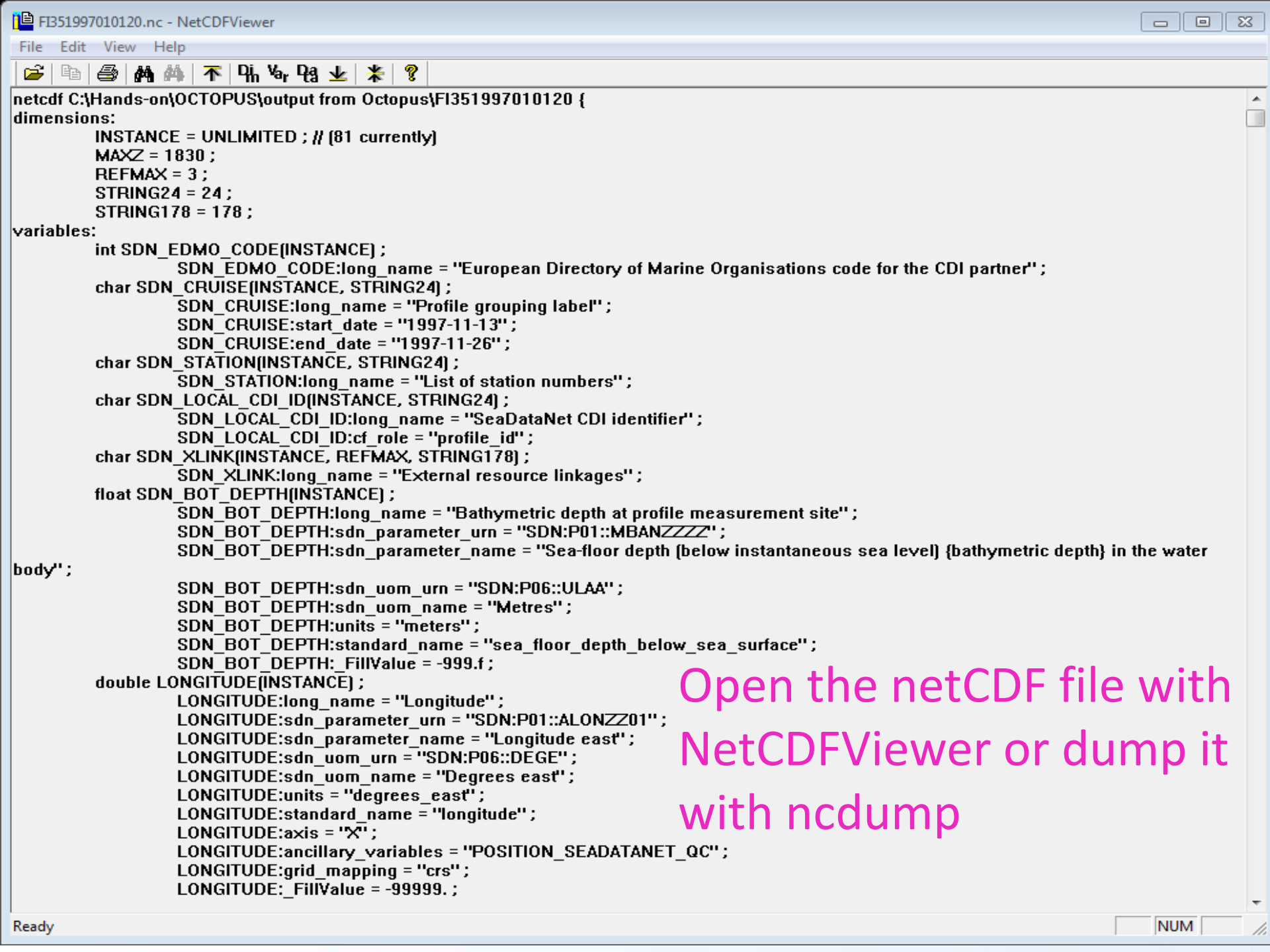
## Step 2: Work on the file created by NEMO

1. Check the file
2. Convert it to netCDF, Open the netCDF file with NetCDFViewer or dump it with ncdump
3. Split the file into monostation files
4. Extract 2 stations from the file and create a unique file with the 2 stations
5. Generate the coupling table



1 - Check the file created by NEMO





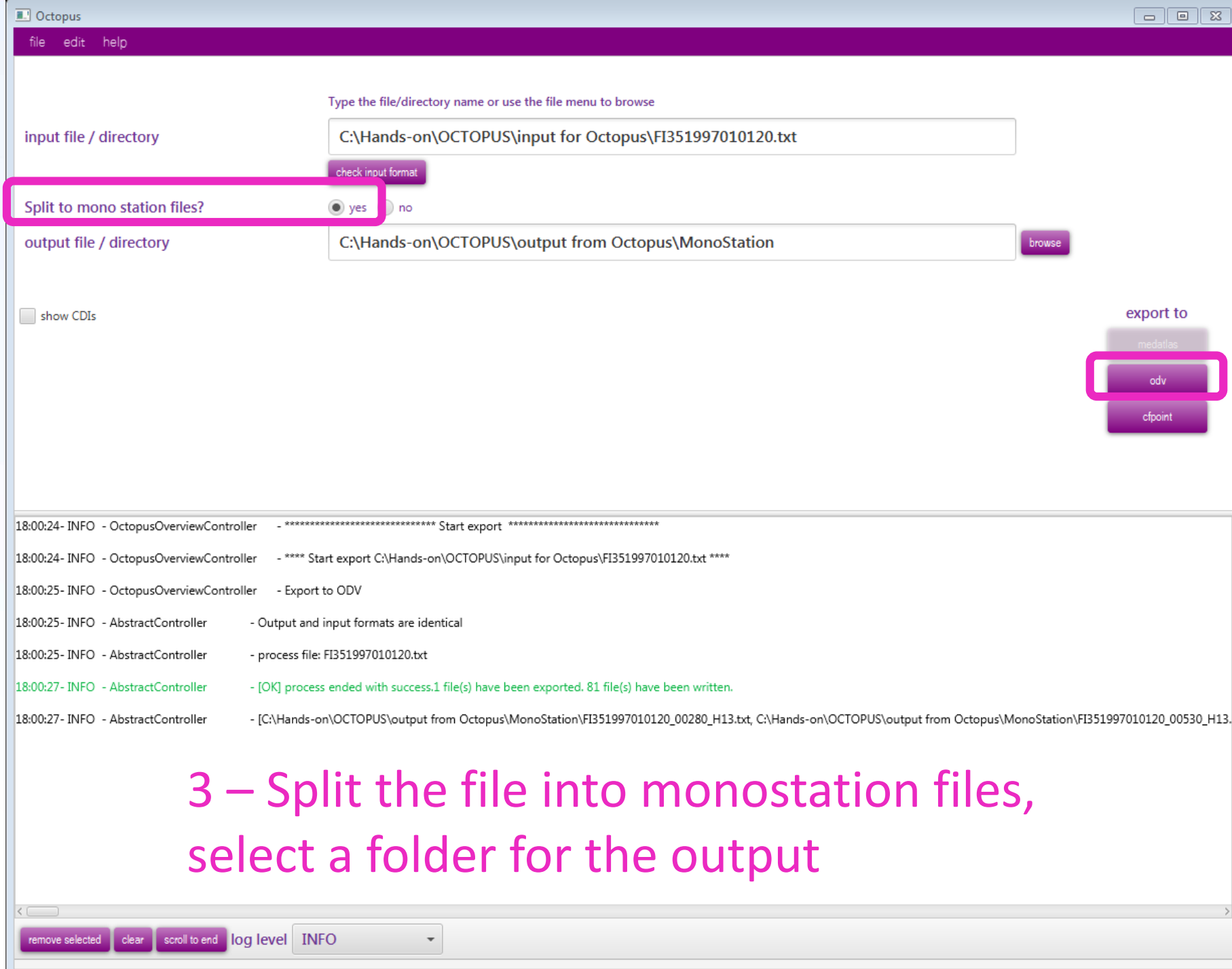
netcdf C:\Hands-on\OCTOPUS\output from Octopus\FI351997010120 {  
dimensions:

INSTANCE = UNLIMITED ; // (81 currently)  
MAXZ = 1830 ;  
REFMAX = 3 ;  
STRING24 = 24 ;  
STRING178 = 178 ;

variables:

```
int SDN_EDMO_CODE(INSTANCE) ;
 SDN_EDMO_CODE:long_name = "European Directory of Marine Organisations code for the CDI partner";
char SDN_CRUISE(INSTANCE, STRING24) ;
 SDN_CRUISE:long_name = "Profile grouping label";
 SDN_CRUISE:start_date = "1997-11-13";
 SDN_CRUISE:end_date = "1997-11-26";
char SDN_STATION(INSTANCE, STRING24) ;
 SDN_STATION:long_name = "List of station numbers";
char SDN_LOCAL_CDI_ID(INSTANCE, STRING24) ;
 SDN_LOCAL_CDI_ID:long_name = "SeaDataNet CDI identifier";
 SDN_LOCAL_CDI_ID:cf_role = "profile_id";
char SDN_XLINK(INSTANCE, REFMAX, STRING178) ;
 SDN_XLINK:long_name = "External resource linkages";
float SDN_BOT_DEPTH(INSTANCE) ;
 SDN_BOT_DEPTH:long_name = "Bathymetric depth at profile measurement site";
 SDN_BOT_DEPTH:sdn_parameter_urn = "SDN:P01::MBANZZZZ";
 SDN_BOT_DEPTH:sdn_parameter_name = "Sea-floor depth (below instantaneous sea level) {bathymetric depth} in the water";
body";
 SDN_BOT_DEPTH:sdn_uom_urn = "SDN:P06::ULAA";
 SDN_BOT_DEPTH:sdn_uom_name = "Metres";
 SDN_BOT_DEPTH:units = "meters";
 SDN_BOT_DEPTH:standard_name = "sea_floor_depth_below_sea_surface";
 SDN_BOT_DEPTH:_FillValue = -999.f;
double LONGITUDE(INSTANCE) ;
 LONGITUDE:long_name = "Longitude";
 LONGITUDE:sdn_parameter_urn = "SDN:P01::ALONZZ01";
 LONGITUDE:sdn_parameter_name = "Longitude east";
 LONGITUDE:sdn_uom_urn = "SDN:P06::DEGE";
 LONGITUDE:sdn_uom_name = "Degrees east";
 LONGITUDE:units = "degrees east";
 LONGITUDE:standard_name = "longitude";
 LONGITUDE:axis = "X";
 LONGITUDE:ancillary_variables = "POSITION_SEADATANET_QC";
 LONGITUDE:grid_mapping = "crs";
 LONGITUDE:_FillValue = -99999.;
```

Open the netCDF file with  
NetCDFViewer or dump it  
with ncdump





Octopus

file edit help

Type the file/directory name or use the file menu to browse

input file / directory C:\Hands-on\OCTOPUS\input for Octopus\FI351997010120.txt

check input format

Split to mono station files? ☐ yes ☒ no

output file / directory C:\Hands-on\OCTOPUS\output from Octopus\FI351997010120\_028\_061.txt browse

☒ show CDIs

| <input type="checkbox"/>            | CDI                      |
|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | FI351997010120_00280_H13 |
| <input type="checkbox"/>            | FI351997010120_00530_H13 |
| <input type="checkbox"/>            | FI351997010120_00140_H13 |
| <input type="checkbox"/>            | FI351997010120_00220_H13 |
| <input type="checkbox"/>            | FI351997010120_00670_H13 |
| <input checked="" type="checkbox"/> | FI351997010120_00610_H13 |

export to

medatlas

odv

cfpoint

```
18:10:13- INFO - OctopusOverviewController - ***** Start export *****
18:10:13- INFO - OctopusOverviewController - **** Start export C:\Hands-on\OCTOPUS\input for Octopus\FI351997010120.txt ****
18:10:13- INFO - OctopusOverviewController - Export to ODV
18:10:13- INFO - AbstractController - Output and input formats are identical
18:10:13- INFO - AbstractController - process file: FI351997010120.txt
18:10:13- INFO - AbstractController - [OK] process ended with success.1 file(s) have been exported. 1 file(s) have been written.
18:10:13- INFO - AbstractController - [C:\Hands-on\OCTOPUS\output from Octopus\FI351997010120_028_061.txt]
```

remove selected clear scroll to end log level INFO

## 4 – Extract 2 stations from the file and create a unique file with the 2 stations. Verify the stations in the file

Octopus

file edit help

coupling table

export clean

close

| cdi                      | modus | format  | path                                     | date                    |
|--------------------------|-------|---------|------------------------------------------|-------------------------|
| FI351997010120_00710_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00710_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00720_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00730_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00740_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00750_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00760_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00770_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00780_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00790_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00800_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00810_H13 | 3     | CFPOINT | FI351997010120.nc                        | 2018-06-12T17:54:56.552 |
| FI351997010120_00280_H13 | 1     | ODV     | MonoStation\FI351997010120_00280_H13.txt | 2018-06-12T18:00:26.185 |
| FI351997010120_00530_H13 | 1     | ODV     | MonoStation\FI351997010120_00530_H13.txt | 2018-06-12T18:00:26.206 |
| FI351997010120_00140_H13 | 1     | ODV     | MonoStation\FI351997010120_00140_H13.txt | 2018-06-12T18:00:26.227 |
| FI351997010120_00220_H13 | 1     | ODV     | MonoStation\FI351997010120_00220_H13.txt | 2018-06-12T18:00:26.233 |
| FI351997010120_00670_H13 | 1     | ODV     | MonoStation\FI351997010120_00670_H13.txt | 2018-06-12T18:00:26.252 |
| FI351997010120_00610_H13 | 1     | ODV     | MonoStation\FI351997010120_00610_H13.txt | 2018-06-12T18:00:26.279 |
| FI351997010120_00750_H13 | 1     | ODV     | MonoStation\FI351997010120_00750_H13.txt | 2018-06-12T18:00:26.289 |
| FI351997010120_00450_H13 | 1     | ODV     | MonoStation\FI351997010120_00450_H13.txt | 2018-06-12T18:00:26.305 |
| FI351997010120_00060_H13 | 1     | ODV     | MonoStation\FI351997010120_00060_H13.txt | 2018-06-12T18:00:26.312 |
| FI351997010120_00300_H13 | 1     | ODV     | MonoStation\FI351997010120_00300_H13.txt | 2018-06-12T18:00:26.322 |
| FI351997010120_00590_H13 | 1     | ODV     | MonoStation\FI351997010120_00590_H13.txt | 2018-06-12T18:00:26.335 |
| FI351997010120_00190_H13 | 1     | ODV     | MonoStation\FI351997010120_00190_H13.txt | 2018-06-12T18:00:26.353 |

5 – Have a look at the coupling table – Try the functions Export - Clean

## Step 3: Work on the files with errors and/or warnings

1. Select files in the directory  
**OCTOPUS\input for Octopus\Files with errors**
2. Run OCTOPUS on each of them
3. Find the errors
  - FAQ table can be used
    - [For ODV files](#)
    - [For netCDF files](#)
4. Correct the file when possible
5. Run the check again

## In the error folder

- Name of the file is
  - ErrorXX\_AA\_BBB.ext
    - AA can be VP for vertical profiles, TS for Time Series and TJ for Trajectory
    - BBB is the format

## Step 4 : Work on your own files

- Check your files at ODV, NetCDF or MedAtlas formats
- Check file per file or folder per folder
- Convert your files to different formats (file per file or a whole folder)