SeaDataNet

OCTOPUS

User manual

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Deliverable number	Short title
	OCTOPUS user Manual

Long title

OCTOPUS user Manual

Short description

Octopus is a multi-formats splitter & converter tool. It replaces the following software: med2medSDN, Change_vocab_V1toV2, MedSDN2CFPoint, OdvSDN2CFPoint, offering a unique and ergonomic tool.

It also allows :

- to split a multistation file into monostation ones
- to extract 1 to n stations from a multistation file and export them into another multistation file or several monostation ones.
- to check the compliancy of MedAtlas and ODV format

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Public	

History

Version	Authors	Date	Comments
1.0	S. Brégent, M. Fichaut	07/01/2016	Creation
1.1	S. Brégent, M. Fichaut	19/12/2016	Add installation instructions. Change export types names from “mono” to “split” and from “multi” to “keep” 5.2. Specifications for MGD: 81 and 98 are different formats. They cannot be converted from the same input directory.
1.2	S. Brégent, M. Fichaut	27/01/2017	Add warning on MGD formats: MGD81 and MGD98 are distinct formats (§5.1). Add warning on output path in case of directories: do not write the last separator (§6)
1.3	S. Brégent, M. Fichaut	03/07/2017	Add informations on BODC vocabularies checks (§4.2)

Table of contents

1. Introduction

Octopus is a multi-formats splitter & converter tool. It replaces the following software: med2medSDN, Change_vocab_V1toV2, MedSDN2CFPoint, OdvSDN2CFPoint, offering a unique and ergonomic tool.

It also allows:

- to split a multi-station file into mono-station ones
- to extract *1 to n* stations from a multi-station file and export them into another multi-station file or several mono-station ones.
- to check the compliancy of MedAtlas and ODV format

Octopus can be used in interactive mode or in batch mode.

2. Requirements

Octopus requires java 1.8.0_60 or greater.

Octopus is available for multiple platforms: Windows, windows 64, Linux, Linux 64.

Languages: French, English

3. Installation

Download the Octopus software from SeaDataNet web site, under Standards & Software:

http://www.seadatanet.org/Standards-Software

Copy the zip file on your computer and unzip it.

The change log is available in octopus/resources directory, in the changeLog.pdf file.

3.1. Launch on windows

To launch Octopus, click on octopus.exe in the octopus directory.

3.2. Launch on Linux

To launch Octopus, click on octopus.sh in the octopus directory, or launch it from a terminal:

```
cd octopus
./octopus.sh
```

4. Get started

4.1. Settings

4.1.1. Menu Edit/settings

This item is used to configure OCTOPUS for your own utilization.

You can:

- Choose your language.
- Choose your default input and output directories. The browse button will automatically open these directories.
- Choose your EDMO code (used to convert MGD files).
- Ask Octopus to fill the local coupling table, by checking “Use coupling table” and choosing the coupling prefix (path prefix that will NOT be written in the coupling files path).
- Update external lists (EDMO codes and BODC NERC Vocabularies).

4.1.2. Menu Edit/Coupling table

The “Coupling Table” menu of OCTOPUS allows basic management of the content of the coupling table used by the SeaDataNet download manager to retrieve the LOCAL_CDI_IDs requested by a user downloading.

4.1.2.1. Export

This export function generates a coupling file that will be used by SeaDataNet Download Manager for retrieving stations in the files.

The coupling file used by SeaDataNet download manager is unique and called “coupling.txt”. This file must not contain duplicates (the coupling file ID is LOCAl_CDI_ID + format) It’s up to OCTOPUS user to create only one file called “coupling.txt” for SeaDataNet purpose by using the coupling table facilities.

The format of this coupling file is the following:

Local_cdi_ID;Modus;Format;File_name

The export function will replace the previous coupling file if the name of the export file is the same.

4.1.2.2. Delete all

The delete all button is used to empty the coupling table. All records will be deleted. The table should be first exported if the user wants to keep the information in a flat file.

4.2. Features

Available conversions/splits are listed in Table 1

Table 1 - Possible conversions using OCTOPUS

input→ output ↓	Med non SDN	Med SDN	ODV	CFPoint	MGDv81	MGDv98
MedSDN	✔	✔	✗	✗	✗	✗
ODV	✔	✔	✔	✗	✔	✔
CFPoint	✔	✔	✔	✔	✗	✗

Input can be a file, or a directory containing several files (all files using the same format, no sub-directory).

Automatic format updates:

- For all conversion/split cases, Octopus will automatically add SDN CDI references.
- For conversion/split from MedAtlas (SDN or non SDN) to MedAtlas SDN, SDN CSR and SHIP (NVS2CON) references will be added to output file(s).
- For conversion/split from MedAtlas non SDN to MedAtlas SDN, SDN mapping lines will be added to output file(s).
- For all conversion/split cases, Octopus will automatically check the BODC vocabularies terms. Octopus will automatically replace deprecated term, and display an error if term does not exists or is deprecated and has no “ReplacedBy” attribute.

5. Use of OCTOPUS in interactive mode

5.1. Open input file or directory

This step allow to select the file(s) to be converted/split.

OCTOPUS is able to process one file or one directory containing files at the same format.

WARNING: MGD81 and MGD98 are not the same format. They must be gathered in separated directories.

There are two possible ways to open a file:

- Menu file/open file
- Write or paste the input path in the input file/directory then TAB or ENTER

There are two possible ways to open a directory:

- Menu file/open directory
- Write or paste the input path in the input file/directory then TAB or ENTER

5.2. Check input file(s)

Once the file of directory has been chosen, it is possible to check the format of the file(s) by clicking on the “Check the input format” button. In the case of a directory, all files are supposed to be at the same format (it is not possible to check a directory containing MedAtlas and ODV files, or MGD81 and MGD98 files, for example).

Only ODV and MedAtlas formats are checked in this version of OCTOPUS software.

5.3. Select the type of output file(s)

This feature is not available for MGD files.

The output files of OCTOPUS can be mono-station file (One LOCAL_CDI_ID only) or multi-station files (1 to n LOCAL_CDI_IDs): OCTOPUS can export each input file to one multi-stations file, or multiple mono-stations files.

Note: if the input is a directory, set output type to *keep* will generate a multi-station file *for each* input file (Octopus does not merge stations of different input files).

5.4. Select the output file or directory

Use the browse button, or write or paste the output path in the output file/directory.

If input is a file, and output type is multi, you have to set a filename.

Otherwise, set a directory name.

Note on output files names:

Except the case of one input file exported as a multi-stations file, Octopus will generate paths as described below.

		Ouput type	
		Split	Keep
Input type	File	**output**/local_cdi_id.ext	output
	Directory	**output/inputFileName**/local_cdi_id.ext	**output**/inputFileName.ext

where : - directories are in red, files are in green.

- Output is the path set in the output file/directory field
- inputFileName is the name of one input file in the input directory
- .ext is the extension of the filename: .txt for ODV, .nc for NetCDF and .free text for MedAtlas

5.5. Select the LOCAL CDI ID(s) for ODV file(s)

This field is available only for MGD input files or directories. MGD files do not have LOCAL CDI IDs. You have to specify it.

In case of an input file, write the LOCAL CDI ID in the field.

In case of an input directory, you will have to write a mapping file. Use the Browse button to select the mapping file path, or write or paste the output path in the field.

Write a mapping file:

The mapping file is a semi-colon separated file, with two columns: file name and LOCAL CDI ID

Example:
20002001ATE.mgd77;FI29_2002AT
20003001ATE.mgd77;FI29_2003AT

6. Use of OCTOPUS in batch mode

Open a console and move to the Octopus installation directory (where the octopus.jar is)

Launch command: *java -jar octopus.jar <options>*

Usage:

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

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

WARNING:

If the output path is a directory, **DO NOT WRITE** a slash or backslash at the end of the path:
–o*"/home/out/exportCFDirectory"*is correct
–o*"/home/out/exportCFDirectory/"* is incorrect

Examples:

- Export all stations from input MedAtlas files directory to mono-stations CFPoint files

java -jar octopus.jar ***–i****"/home/input/profileDir"****–o****"/home/out/exportCFDirectory"****-f****cfpoint****–t****split*

- Export CDI1 and CDI2 stations from input MedAtlas file to multi-stations ODV file

java jaroctopus.jar ***-i****"/home/input/profile.med"****–o*** ***"****/home/out/exportODV1and2.txt"****-f****odv****–t****keep****–c****CDI1,CDI2*

- Export MGD file to multi-stations ODV file using XXX as local CDI ID

java jar octopus.jar ***-i****"/home/input/mgd81.mgd77"****-o****"/home/out/exportODV1and2.txt"****-f****odv-l XXX*