SeaDataNet

Octopus Design Documentation

History

version	Authors	Date	Comments
0.1	S. Brégent	30/06/2015	Initial document

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1 Scope

The document describes the detailed design of Octopus.

Octopus is a multi-formats splitter & converter tool. It replaces the softwares splitter, medSDN2CFPoint, OdvSDN2CFPoint, offering a unique and ergonomic tool.

2 Relative documents

SeaDataNet Datafile Formats

http://www.seadatanet.org/content/download/16251/106283/file/SDN2_D85_WP8_Datafile_formats.pdf

3 Specifications

3.1 Available formats

Ths Octupus software is a multiple-formats converters, designed to be flexible so that it will be able to manage more formats as input or output in the future.

Available input formats:

- Medatlas (non SDN and SDN)
- Odv SDN
- CFPoint SDN
- MGDv81
- MGDv98

Available conversions and splits are detailed in §4.3.

3.2 Execution

Octopus can be used in two ways:

- GUI mode
- in batch mode

3.3 Languages

Octopus offers two languages: english and french. Default is english.

The language can be defined by the user using the settings panel (menu edit/settings).

3.4 Requirements

Octopus requires java 1.8.0_60 or greater.

Octopus is available for multiple platforms:

Windows, windows 64, linux, linux 64.

3.5 Functionalities

3.5.1 conversion / split

Octopus can split and/or convert one file or multiple files in a directory.
Input directories must contain only files (no sub directories).

- GUI mode: Clic on Export/<format> menu
- Batch mode: execute batch command in a shell

Conversion / split arguments	**GUI mode**	**Batch mode**	**Mandatory**
Choose input file or directory	Menus: • File/open file • File/open directory	Argument: -i <path>	yes
Choose output format	Buttons: - Medatlas - ODV - CFPoint	Argument: -f <format> with <format> in: • Medatlas • ODV • CFPoint	yes
Choose output type	Radio buttons: mono/multi	Argument: -t <type> with <type> in: • monostation • multistations	yes
Choose output directory / filename	GUI fields: • output filename • output directory (directory if input=dir or output=mono)	Argument -o <path>	yes
Choose CDI(s) to export (input file only, not available for input directories)	GUI table: • displays all local_cdi_id read in the input file • displays a checkbox in front of each local_cdi_id • displays a checkbox (“select all”)	Argument -cdi <cdilist> where <cdilist> is a comma separated list of local_cdi_id (“cdi1, cdi2”) If no -cdi argument is set, all CDIs are exported	No (default is all)
Choose output local CDI ID (for MGD only)	GUI field	Argument -l <local_cdi_id>	Yes (for MGD only)

3.5.2 Coupling table

User can enable Coupling Table in the settings panel. The coupling prefix is set in this panel.
For each file generated by Octopus, a new entry is added to the coupling table.
The coupling table can be exported in a semi-colon separated CSV file, with following columns:
LOCAL_CDI_ID;MODUS;FORMAT;FILENAME

The user can clean the Octopus Coupling table using the clean button.

3.5.3 Logs

All messages are logged into a specific log file, in both GUI and batch mode.
In GUI mode, messages are also displayed in a textarea.
See fr.ifremer.octopus.view.LoggerConsoleController

3.5.4 GUI menus

menu	Sub-menu	description
File		
	Open file	Open a file selection browser
	Open directory	Open a directory selection browser
	close	Close the application
Edit		
	Preferences	Open the Preferences panel
	Coupling table	Open the Coupling table panel (read only)
Help		
	Manual	Open the Manual
	About	Open the About panel

3.5.4.1 Preferences panel

- Language (EN/FR)
- Edmo code
- default input directory
- default output directory
- coupling table prefix
- BODC updates

- TODO: EDMO updates

4 Design

4.1 Programmating language

Maven project

Java 8, using javaFX libraries

4.2 Dependencies

dependency	description
medatlasreader	• Read Medatlas files (non SDN and SDN) • validate Medatlas files • write to SDN Medatlas, ODV or CFPoint , adding CDI, CSR and SHIP references
medatlasreader	• Read SDN ODV files • validate SDN ODV files • write ODV SDN or CFPoint , adding CDI references
cfpointLib	• Read CFPoint files • validate CFPoint files • write to CFPoint adding CDI references
sismerToolsLib	• Common code for SDN, dates and coordinates
SDNVocabulary	• BODC vocabularies
mgd	• Read MGD files • write to ODV, adding CDI references

Table 1: dependencies

Dependency hierarchy:

medatlasreader → medatlasreader → cfpointLib → sismerToolsLib
mgd → sismerToolsLib

4.3 Conversion & splits

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

CFPoint	✔	✔	✔	✔	✗	✗