SeaDataNet

Octopus Design Documentation

History

version	Authors	Date	Comments
0.1	S. Brégent	30/06/2015	Initial document
1.0	S. Brégent	21/03/2016	Change presentation Fix dependencies
1.4.2	S. Brégent	22/02/2019	Update requirements (java 8 or none)
1.5.2	S. Brégent	06/01/2020	Add SVN sources path
1.5.2	S. Brégent	15/01/2020	Update conversions – add ODV variants add link to documentation on dependencies
1.5.3	S. Bregent	23/03/2020	Add chapter about delivery

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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 following software : med2medSDN, Change_vocab_V1toV2, MedSDN2CFPoint, OdvSDN2CFPoint, splitter, 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

2 Relative documents

SeaDataNet Datafile Formats

https://archimer.ifremer.fr/doc/00454/56547/

Dependencies
https://scmforge.ifremer.fr/authscm/sb1f76e/svn/sismermco/sismerTools/DOCUMENTATION/sismer_tools_design.odt

3 Developpment environment

Eclipse

Scenebuilder:

https://www.oracle.com/java/technologies/javafx-scene-builder-source-code.html

4 Sources

https://scmforge.ifremer.fr/authscm/sb1f76e/svn/sismermco/sismerTools/octopus/trunk

5 Specifications

5.1 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 §6.3.

5.2 Execution

Octopus can be used in two ways:

- GUI mode
- in batch mode

5.3 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).

5.4 Requirements

Octopus classic requires java 1.8.0_60 or greater, but lower than 9.

A version with embeded jre is built since 1.4.2.

Octopus is available for multiple platforms:

Windows, windows 64, linux, linux 64.

5.5 Functionalities

5.5.1 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	yes

		• multistations	
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)

5.5.2 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.

5.5.3 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

5.5.4 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

5.5.4.1 Preferences panel

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

6 Design

6.1 Programmating language

Maven project

Java 8, using javaFX libraries

Gui (fxml files) can be modified using SceneBuilder

https://www.oracle.com/technetwork/java/javafxscenebuilder-1x-archive-2199384.html

6.2 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
odvSDN2CFPointLib	• 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 → odvSDN2CFPointLib → cfpointLib → sismerToolsLib → sdnVocabulary
mgd → sismerToolsLib → sdnVocabulary

6.3 Conversion & splits

output→ input ↓	MedSDN	ODV	ODV variants	netCDF - CFPoint
Med non SDN	✓	✓	✗	✓
Med SDN	✓	✓	✗	✓
ODV SDN	✗	✓	✗	✓
ODV variants	✗	✗	✓	✗
netCDF-CFPoint	✗	✓	✗	✓
MGDv81	✗	✓	✗	✗
MGDv98	✗	✓	✗	✗

6.4 Entry points

6.4.1 GUI

The fxml files are stored in the directory

/octopus/src/main/resources/fr/ifremer/octopus/view

Use Scenebuilder to modify them.

6.4.2 Preferences

fr.ifremer.octopus.utils.PreferencesManager

6.4.3 Input Format detection

fr.ifremer.octopus.io.driver.DriverManager + implementations : fr.ifremer.octopus.io.driver.impl

7 Delivery

7.1 Checklist

Non regression tests → Jenkins

Update external resources → Jenkins

test in batch mode → manual

Sources files to update:

- Help/About menu (EN)
- Aide/A propos menu (FR)
- Help/Manual menu (EN)
- Aide/Manuel menu (FR)
- /octopus/src/main/resources/bundles/about.properties (update version number)

7.2 build

Build dependencies in correct order:

sismerToolsLib, cfpointLib, mgd, odvSDN2CFPointLib, medatlasreader, octopus

Jenkins will generate and archive artefacts:

octopus_Linux_1.5.3.1-SNAPSHOT_105.zip	31,69 MB	view
octopus_Linux_standalone_1.5.3.1-SNAPSHOT_105.zip	112,69 MB	view
octopus_Win_1.5.3.1-SNAPSHOT_105.zip	31,72 MB	view
octopus_Win_standalone_1.5.3.1-SNAPSHOT_105.zip	103,49 MB	view
octopus-1.5.3.1-SNAPSHOT-javadoc.jar	316,36 KB	view
octopus-1.5.3.1-SNAPSHOT.jar	27,99 MB	view
original-octopus-1.5.3.1-SNAPSHOT.jar	27,99 MB	view

7.3 deliver

Download Standalone clients

octopus_Linux_a.b.c.d-SNAPSHOT_xxx.zip
octopus_Linux_standalone_a.b.c.d-SNAPSHOT_xxx.zip
octopus_Win_a.b.c.d-SNAPSHOT_xxx.zip
octopus_Win_standalone_a.b.c.d-SNAPSHOT_xxx.zip

remove _xxx, which is the Jenkins build number, then store the zips in the delivery directory (create the appropriate sub-directory)

https://projets-brest.altran.com/nextcloud/index.php/apps/files/?dir=/DELIVERIES/OCTOPUS&fileid=1659

Update the delivery web site home page
https://projets-brest.altran.com/nextcloud/index.php/apps/files/?dir=/mcosismer/content&fileid=1099#editor

and the Octpus page
https://projets-brest.altran.com/nextcloud/index.php/apps/files/?dir=/mcosismer/content/sub&fileid=1101#editor