All numbers are fake
This document just
describes a plan for
processing data.

cbm_runner pipeline - Data flowchart
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1) Input data: Historical inventory data.
- The source is "The National Forest inventories" (NFI).
- A bit different for each country.

Invento.???
Invento.???
Invento.???
Inventory.???

harvest.???

2) Input data: Historical harvest data.
- From 1995 to 2015.
- The source is "Food and Agriculture Organization". Called FAO stat.

Unkown provenance
Manual interventions?

Calibration done by R.P.
Manual interventions
?

3) Calibration:
- Contains the back inventory as well as growth curves. 82 tables.

BEF_FIS
* Classifer_1_check
* Classifer_2_check
* Classifer_3_check

calibration.mdb

4) Silvicultural treatment:
- Describes futures disturbances.
- Will be responsible for "dist_events_scenario.csv"

silviculture.sas

aidt
aidt
aidt
aidb_eu.mdb

5) AIDB-eu: An archive index database specific for each europeen country

We only use about 10 tables from this file

Generate CSV files
Converts the calibration database to several CSV files. (Look at upd_aws.py)

Generate new distrubances
Uses information from dist_events_hist and silviculture to create scenario disturbances

Files that have two icons are files that will be used differently for the period before the year 2000 and after.

Coefficients are stored in the calibration.mdb

Versioned

ageclass.csv

classifiers.csv

inventory.csv

transition_rules.csv
transition_rules_hist.csv

yield.csv
yield_hist.csv

dist_events.csv
dist_events_hist.csv

dist_types.csv

coefficients.csv

dist_events_scen.csv   dist_types_scen.csv

Scenario Genration
Can modify the input files according to current scenarios

Combine CSV To XSL
Combine the CSVs into a multi-sheet excel file.

Assocation
Maps the name of administrative, ecology region, species, disturbances between the calibration.db and the aidb

associations.xls

() Input XLS: an excel file with seven sheets:

* ageclass
* classifiers
* disturbance_events
* disturbance_types
* inventory
* transition_rules
* yield

input.xls

config.json

() Config JSON: Autogenerated JSON file containing:

* excel file path (c.f. 1)
* output path
* spatial_units
* disturbance_type_mapping
* species_classifier
* nonforest_classifier

StandardImportToolPlugin
- Written in Microsfot Visual Studio C#
- Open source
- Binary distribution

() MS Access database: containing these 121 tables:

tblToolTurnoverScoplit
* tblRunBiomassConversionScenario
* tblRunBiomassTurnoverScenario
* tblRunBiomassTurnoverScenarioLookup
* tblRunClimateScenario

project.mdb

Why are there so many tables given the small input?

() Archive index database: MS Access database containing these 71 tables:

tblGenusTypeDefault
* tblGrowthMultiplierDefault
* tblInput2OutputColMapping
* tblInputDB
* tblInputTable4BRDBTable

cbm3_python
- Written in Python
- Open source
- Wrapper scripts to call CBM

s.CleanupRunDirectory()
s.CreateMakelistFiles()
s.copyMakelist()
s.runMakelist()
s.loadMakelistSVLS()
s.DumpMakelistSVLs()
s.copyMakelistOutput()
s.CreateCBMFiles()
s.CopyCBMExecutable()
s.RunCBM()
s.CopyTempFiles()
s.LoadCBMResults()

aidb.mbd

CBM-CFS3
- Written in ???
- Closed source
- Dependency on dot net
- Binary distribution

() MS Access database: containing these 51 tables:

tblHylile
* tblLandClasses
* tblManagementType
* tblMaturityType
* tblNIRDomainOutput

project.mdb

Why is there a reduction in the number of tables?

Custom Post Processing
Written in Python

coefficients.csv

initialize_carbon_pools

() Updated Inventory: containing the volume of forest of different species and different ages

	Age	Area	Other
1	10	5000	a
2	30	3000	B
3	50	1000	c

() Visulaize: The inventory age according the time step, with area as a third parameter

() Report: Produce a PDF report containing statistics and summarizing the run of the pipeline. This is useful for checking that everything went well.

() Data: Provide access to all the data that was generated

PDF

Orig
Input
Output

Area
0.0
800.0
1600.0
2400.0
AverAge
TimeStep