ConsolRate4Mode Samgods 1.2.2

Trafikverket

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ConsolRate4Mode Documentation

This document describes the ConsolRate4Mode module used in Samgods version 1.2.2. ConsolRate4Mode.jar is a Java program that aggregates the submode based consolidation rates for a given commodity.

What does it do?

ChainChoi creates CoVo-files, file with the (filenames consolX_Y.314, where X is the commodity number and Y is the submode). ConsolRate4Mode iterates over these files and saves the highest consolidation rate per OD-relation and mode. This consolidation rates are written to files (with the filenames consolX_Y.314, where X is the commodity number and Y is the mode) to the folder *ConsolidRate4Mode*. The original CoVo-files created by ChanChoi are overwritten using the following data:

- The highest consolidation rates found using the iteration described above
- The exceptions that are read from *Input\General\MaxCapandConsolExcept.dat*
- The upper and lower limits for the consolidation rates per submode found in *ChainChoi_Common.ctl* and *ChainChoi_Special.ctl*.

If the *–UseExoFile* argument is given the original CoVo-files is overwritten using the following priority

1. Parent mode CoVo per relation if consolX_Y.314 exists, where Y is parent mode.
2. Child mode CoVo per relation if consolX_Y.314 exists where Y is child mode.

The source files used for overwriting are from the appointed directory provided in the control file *…\ChainChoi\Exogenous_Consolidation_Rate_Dir.ctl*

Should this file not exist, the *–UseExoFile* argument does not have any impact. A consequence of this is that the argument is always present in the main command file, *commodity.bat*, used when running STD logmod. Whether or not it is used is in fact controlled by the presence of the named control file above.

Program control

Command line

ConsolRate4Mode is a Java command line program. It is run by a command similar to:

```
java -jar ConsolRate4Mode.jar commodityNum -UseExoFile
```

Command line parameters:

commodityNum

The commodity number used to calculate consolidation rates, a value in the interval [1-16].

-UseExoFile

Optional flag, case insensitive. When given, a path is read from the file *…\ChainChoi\Exogenous_Consolidation_Rate_Dir.ctl* which holds the path to files with exogenous consolidation rates to be used during runtime. The purpose of this is to inherit a set of consolidation rates from a reference scenario, for example the base year scenario or the main scenario for the forecast year.

Program structure

The program is originally developed in IntelliJ IDEA.

Main classes

ConsolRate4Mode.java

This class holds the java main procedure, handling arguments, generating and removing files to indicate execution status.

CoVoJAplusUA.java

Handling parent and child functionality, i.e. used when the *–UseExoFile* is given.

CoVoModeAgg.java

Methods for handling the main functionality described under the "*What does it do?*" headline.

Utility classes

ErrorLogger.java

A utility class used for logging.

Logger.java

A utility class with help functions handling logging and file handling.

Util.java

A utility class that has various functions for string handling, parsing and converting.

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