REPORTER AUXILIARY DATABASE

Technical description of the
ReportER auxiliary database format

Prepared for the European Environment Agency

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Background

Within the framework of the CORINAIR programme the European Environment Agency (EEA) and its European Topic Centre on Air Emissions (ETC-AE) have developed a set of software tools to support national experts in compiling annual emission inventories. These tools allow for a transparent and standardised, hence comparable, data collecting and emissions reporting procedure within the framework of different international conventions and protocols. The basis of the CORINAIR tools is a relational database model covering the data and their relations required. The ReportER tool uses this database to prepare international reports. The important transformations rules used to transform basic CORINAIR nomenclatures (SNAP, Pollutants, Fuels) into those used in the target reports (IPCC, CRF ….) are stored in the ReportER auxiliary database file.

Purpose

The CORINAIR database was designed for purpose of storing and managing emission inventory data by CollectER/ ReportER software tools. Database model represents a consistent structure of data (entity tables and their relations), which reflects the real world of emission data to be collected. The standard software tools (CollectER, ReportER.) use the CORINAIR database based on the nomenclatures of SNAPs, pollutants, fuels and NUTS codes. However, most of the international reports are based on some other classifications e.g. IPCC. The rules of transforming CORINAIR classification to those used in the target reports are stored in the tables into the ReportER auxiliary database file. The transformation rules documents the procedure of preparing reports, at the same time they are editable, i.e. if uncertainty exists, any rule could be improved or changed.

Auxiliary database

ReportER_II.mdb database is used by ReportER II tool to create reports. ReportER II uses CollectER database V4 format as a source of emission data. In the ReportER II two reports are available:

- UNFCCC CRF report - it fills this data into CRF MS Excel tables defined by UNFCCC. ReportER II database contains a set of tables with links and other transformation rules used by ReportER tool during creation of reports. The reason for to do it in this way was possibility of easy modification of links and rules. That means there are no logical relations between tables in the ReportER II.mdb database. Most of them are used to create CRF report.
- NFR annual reporting format – this option creates following reports:
    - Sector and sub-sector report – national sector emissions by NFR categories
    - Energy report –
    - Agriculture report –
    - Transport report –

  In the NFR report, which is similar to previous EMEP report some modifications concerning emissions from some source categories are involved. This modifications are defined in table **UNECE_nem.**

Tables

Coll_Poll defines type of pollutant for calculation (sectoral/background)

Pol_id	char(3)	pollutant identifier
Param	Integer	1 – sectoral tables, 2 – background tables

Crf_fuel_1A defines split of emissions of CORINAIR fuel group into IPCC fuel types (used in fuel option of the UNFCCC report)

Category	char(12)	IPCC source category
Fuel_id	char(3)	CORINAIR fuel group (NAPFUE)
Fuel_type	char(12)	IPCC fuel type
Contrib	double	emission split of CORINAIR fuel group

Fuel_link defines links between CORINAIR and IPCC fuels

Fuel_type	char(12)	IPCC fuel type
Fuel_id	char(3)	CORINAIR fuel group (NAPFUE)
Fuel_name	char(45)	fuel name

Fuel_link_1A **defines emission splits of CORINAIR fuels to IPCC fuels (in current version replaced by Crf_fuel_1A)**

Fuel_type	char(12)	IPCC fuel type
Fuel_id	char(3)	CORINAIR fuel group (NAPFUE)
Contrib	double	

Fuel_type **- definition of IPCC fuel types**

Ftype	char(8)	IPCC fuel type
Definition	char(59)	description of the fuel type
CO2_exclu	char(1)	CO2 exclusion flag

IPCC **- list of IPCC source categories**

Ipcc_id	char(5)	identifier of the IPCC source category
Ipcc_name	char(80)	name of the IPCC source category
Comb	char(1)	combustion flag
Lev_IPCC	integer	level of the IPCC source category
IPCC_ord	integer	IPCC category order for reporting
Uni_id	integer	unit identifier

IPCC_pol **- definition of IPCC pollutants**

Ipcc_pol_id	char(3)	IPCC pollutant identifier
Ipcc_pol_name	char(50)	IPCC pollutant name
Uni_id	integer	unit identifier
Uni_abbr	char(10)	abbreviation of the unit name
Order_pol	integer	pollutant order needed for reporting

Koefs **- used for definition of CO2 contribution of NMVOC**

Name	char(50)
Value	double

Nofuel_CO2 **- CORINAIR fuel groups exclusion from CO2 emission**

Fuel_id	char(3)	CORINAIR fuel group (NAPFUE)
Contrib.	Double	fuels contribution to CO2 emission

NoSNAP_CO2 **- CORINAIR source category exclusion from CO2 emission**

SNAP_id	char(6)	CORINAIR source category identifier
Contrib.	Double	source category contribution to CO2 emission

Pol_link **- enables to define links between CORINAIR pollutants and IPCC pollutants and cumulated pollutants**

Pol_id	char(3)	CORINAIR pollutant identifier
Koef	integer	1 default, 2 – only for HFC, PFC ans SF6
Ipcc_pol_id	char(3)	IPCC pollutant identifier

Pol_table **- assigns IPCC pollutants to CRF tables**

Ipcc_pol_id	char(3)	IPCC pollutant identifier
Table_id	char(10)	identifier of CRF(IPCC) table
F_ceq	char(1)	C – equivalent flag
Uni_id	intager	unit identifier

SheetMask **- table of coordinates in the MS Excel sheets**

Table_id	char(50)	CRF(IPCC) table identifier
Sheet	integer	number of the CRF(IPCC) sheet (in the table)
Excol	integer	sequence number of column in the Excel table
Exrow	integer	sequence number of row in the Excel table

Snap_link **- defines links between SNAP and IPCC source categories**

Snap_id	char(6)	CORINAIR source category identifier
Pol_id	char(3)	pollutant id
Ipcc_id	char(5)	IPCC category identifier
Contrib.	Char(13)	display flag

Table_1A **- IPCC fuel_types grouping and displaying table(for background tables)**

Category	char(12)	IPCC source category identifier
Fuel_type	char(12)	IPCC fuel type identifier
Ordf	integer	sequence number of fuel for display
Sheet	integer	sequence number of sheet in the Excel table
Table_id	char(10)	Excel table identifier

Table_text **- list of IPCC (CRF) tables and their headers**

Table_id	char(10)	identifier of the IPCC (CRF) table
Text	char(80)	name of the table

UNECE_Head **-list of pollutants used for UNECE report**

Pol_id	char(3)	pollutant identifier

UNECE_nem **- table containing list of SNAP categories and pollutants not reported in UNECE report**

Snap_id	char(6)	CORINAIR source category identifier
Pol_id	char(3)	pollutant id

UNFCCC_table **- table describing relations between IPCC categories and CRF tables**

Ipcc_id	char(5)	identifier of the IPCC source category
Table_id	char(10)	CRF table identifier
Sheet	integer	sequence order of the Excel sheet

Table_Excel **- defines rules for direct transfer of data from grid into MS Excel sheets(used with newly added reports)**

table_id	char(10)	identifier of ReportER grid
row	integer	sequence number of row in the grid
col	integer	sequence number of column in the grid
sheet	char(20)	identifier of MS Excel sheet
exrow	integer	sequence number of row in the sheet
excol	integer	sequence number of column in the sheet
koef	double	koeficient – default value is “1”

NFR_EC_T **- defines groups of NFR activities as used in the Energy Consumption tables**

tnfr_id	Text(20)	NFR code
tnfr_name	Text(25)	NFR name as used in the Energy Consumption table
table_id Text	(15)identifier of the Energy Consumption table	
tnfr_order	Integer(2)	order of the field Energy Consumption table

NFR_Excel **- defines relations between fields in the grid and MS Excel tables**

table_id Text	(10)Grid table identifier	
row	Integer(2)	number of row in the grid
col	Integer(2)	number of column in the grid
sheet	Text(15)	identifier of the MS Excel sheet
exrow	Long Integer(4)	number of row in the MS Excel sheet
excol	Long Integer(4)	number of column in the MS Excel sheet
exnrow	Long Integer(4)	position of last row in the MS Excel sheet
exncol	Long Integer(4)	position of last column in the MS Excel sheet
koef	Double(8)	auxiliary coefficient

NFR_fuels **- defines fuels used in the Energy Consumption table**

nfr_fu_id	Text(5)	NFR fuel identifier
nfr_fu_name	Text(20)	NFR fuel name
table_id Text	(15)identifier of the Energy Consumption table	
fu_order	Integer 2	position in the Energy Consumption table

NFR_grp **- defines groups of NFR activities**

NFR_gr_id	Text(2)	NFR group identifier
NFR_gr_name	Text(45)	NFR group name

NFR_pol **- table of pollutants as used in the NFR report**

NFR_pol_id	Text(5)	pollutant identifier
NFR_pol_name	Text(50)	pollutant name
uni_id	Integer 2	unit identifier
uni_abbr	Text(10)	unit abbreviation
order_pol	Long Integer(4)	position of the pollutant in the MS Excel sheet

NFR_pol_link **– defines links between NFR pollutants and CollectER pollutants**

NFR_pol_id	Text(5)	NFR pollutant identifier
pol_id	Text(50)	CollectER pollutant identifier

NFR_pol_table **- defines links between table of pollutants and MS Excel sheets**

nfr_pol_id	Text(3)	NFR pollutant identifier
table_id Text	(10)NFR table identifier	
fl_ceq	Text(1)	CO2 equivalent
uni_id	Integer 2	unit identifier

NFR this table defines NFR activities

nfr_id_EA	Text(20)	NFR EA activity identifier
nfr_id	Text(20)	internal NFR activity identifier
nfr_name	Text(100)	NFR activity name
comb	Text(1)	combustion flag

lev_nfr	Integer 2	NFR level
nfr_ord	Integer 2	activity position
uni_id	Integer 2	unit identifier
enfr_id	Text(20)	activity group for Energy Consumption
tnfr_id	Text(20)	identifier of the Energy Consumption table

NFRtoFuels - defines position of the fuel in the Energy Consumption tables

nfr_id	Text(10)	NFR identifier
table_id Text	(15)NFR	table identifier
nfr_fu_row	Integer(2)	NFR table row position

NFRtoNAPFUElink - defines links between CollectER fuel groups and NFR fuels

fuel_id	Text(3)	CollectER fuel group identifier
nfr_fu_id	Text(5)	NFR fuel identifier

SNAP_to_NFR - defines relations between SNAP activities and NFR activities

snap_id	Text(10)	identifier of the SNAP
pol_id	Text(3)	pollutant identifier
nfr_id	Text(20)	NFR identifier
nfr_gr_id	Text(2)	NFR group identifier
ipcc_id	Text(8)	identifier of the IPCC category
nfr_name	Text(70)	name of the NFR category