



CollectER III, a tool for emission inventorying and reporting

“Tinus Pulles





Outline

Software system design and underlying rationale

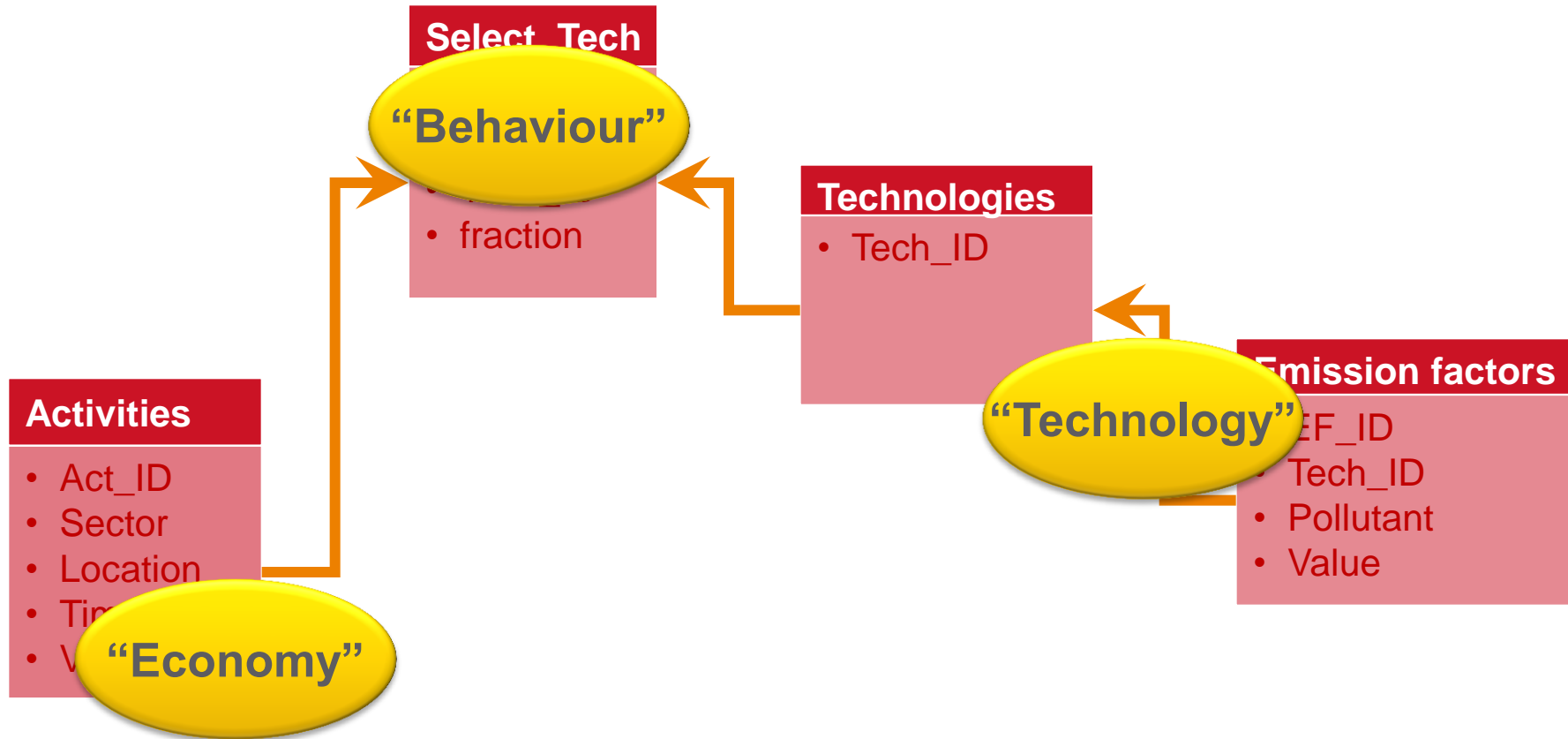
What has been changed

New and updated features of the software

TrainER

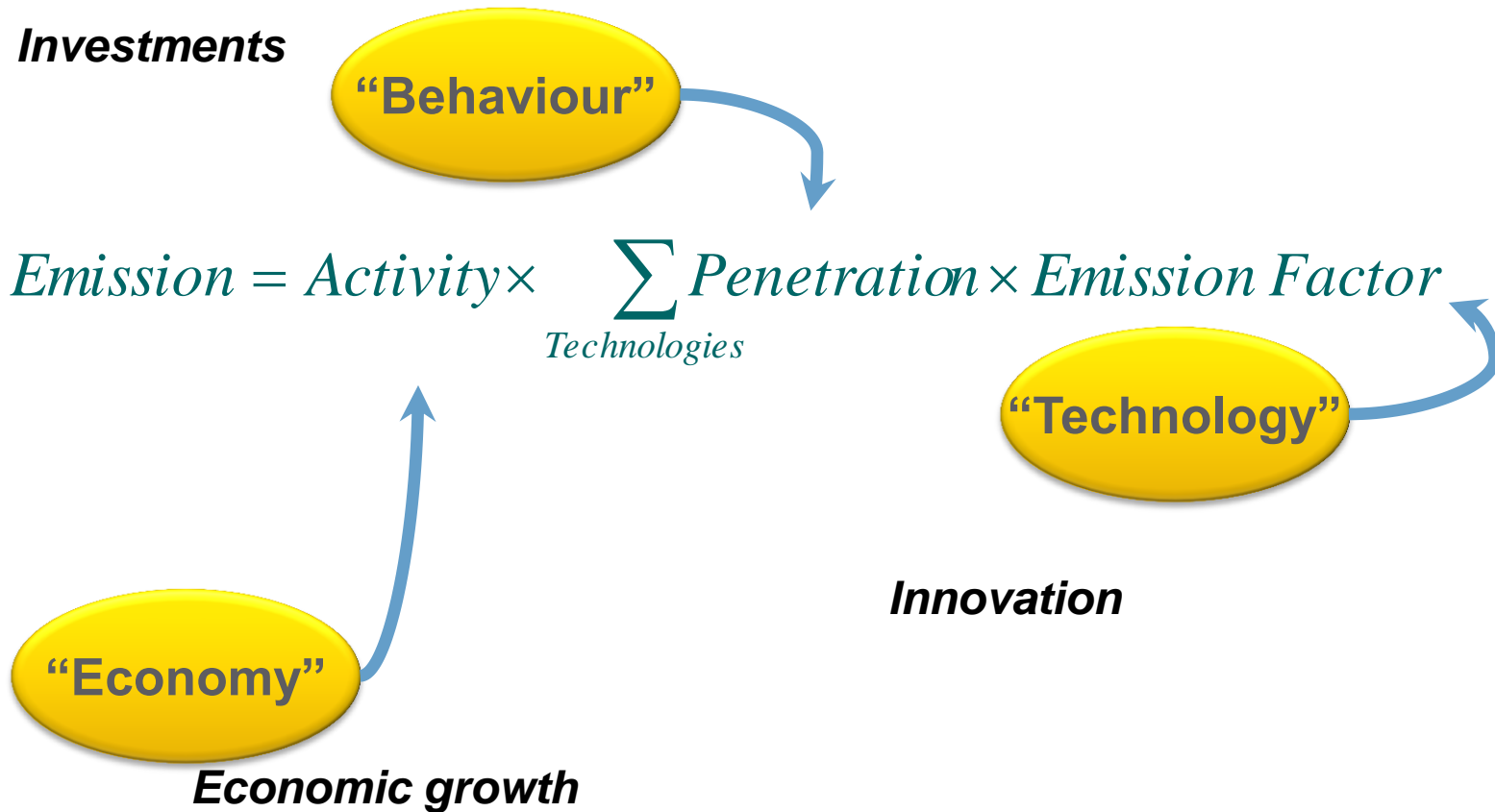


Generalised database structure



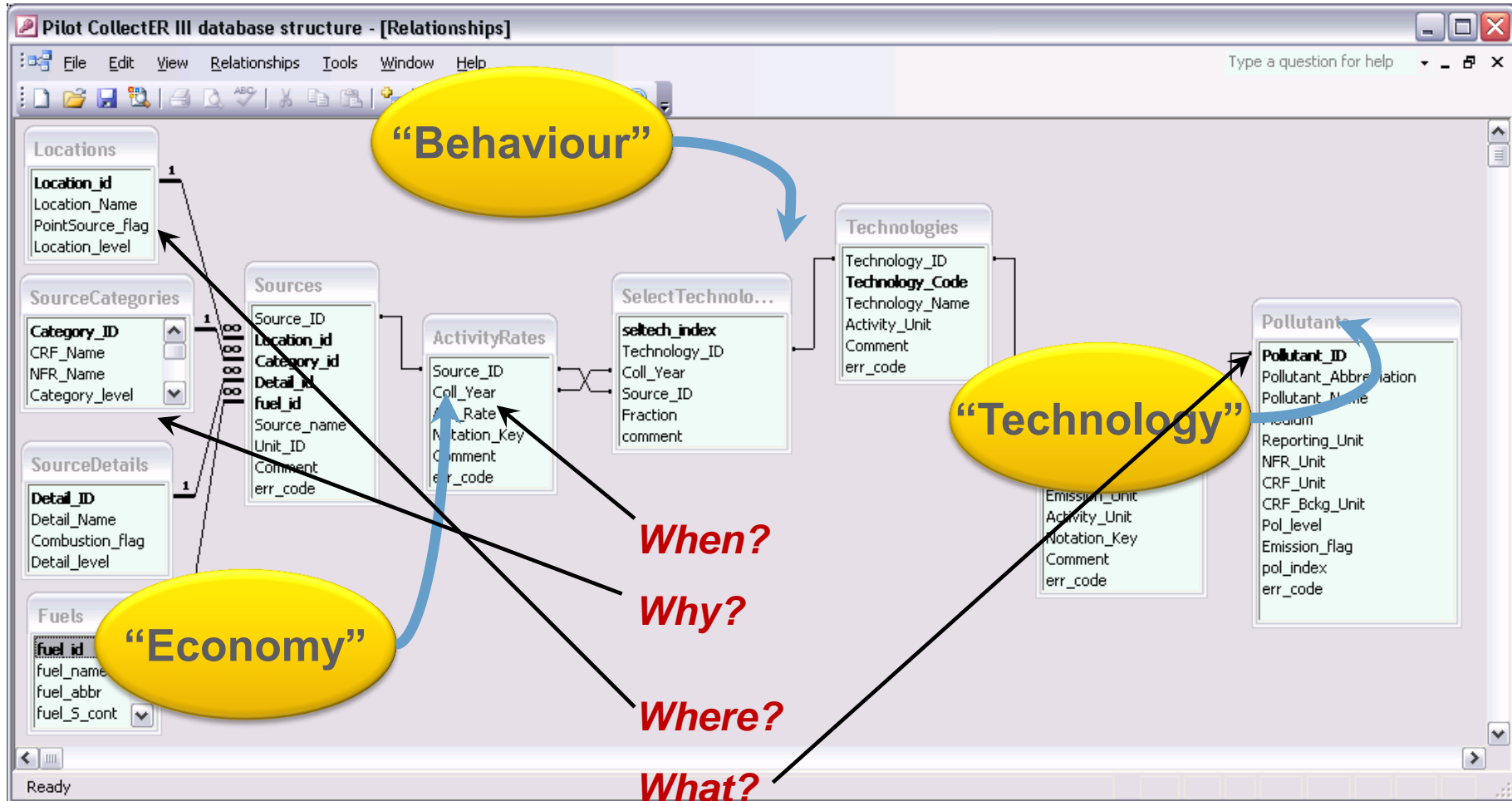


Generalised database structure





Database structure





The interface

Source filter:

- By location
- By source category
- By "SNAP"
- By fuel

Sources matching filter
 Allows selecting source(s)

Activity data for selected sources

Technologies and Emission Factors

Source filter

Locations Categories Details Fuels

Categories

- 0- (total national emissions and removals)
- 1- (total energy)
 - 1.A- (fuel combustion activities (sectoral)
 - 1.A.1- (energy industries)
 - 1.A.1.a-public electricity and heat
 - 1.A.1.b-petroleum refining (petrol)

Activity rates

Source ID	Unit	2000	2001	2002	2003	2004	2005
155	GJ	28000000	32500000	29500000	30400000	36500000	345

Source list

sour	location_id	category_i	detail_i	fuel_id	fuel
178	MI_area	1.A.1.a	010103	301	natu
190	MI_area	1.A.1.a	010103	105	brow
185	MI_area	1.A.1.a	010103	103	sub
189	MI_point_E_2	1.A.1.a	010102	105	brow
155	MI_point_E_P1...	1.A.1.a	010101	103	sub
156	MI_point_E_P1...	1.A.1.a	010101	103	sub
157	MI_point_E_P1...	1.A.1.a	010101	103	sub
158	MI_point_E_P1...	1.A.1.a	010102	301	natu
182	MI_point_M_2_1	1.A.1.a	010101	103	sub
183	MI point M 2 2	1.A.1.a	010101	103	sub

Selected technologies

Year	Code	F	Pol. ID	Pol. Abbreviation	Em. Factor
2005	CoalPowerWetB...	1	02_M01	As	0.007
2004	CoalPowerWetB...	1	02_M02	Cd	0.0007
2003	CoalPowerWetB...	1	02_M03	Cr	0.004
2002	CoalPowerWetB...	1	02_M04	Cu	0.005
2001	CoalPowerWetB...	1	02_M05	Hg	0.002
2000	CoalPowerWetB...	1	02_M06	Ni	0.008
			02_M07	Pb	0.022
			02_M08	Se	0.000433
			02_M09	Zn	0.034

Emission Factors

Selected sources: 1



TrainER III

Self training document

- › Describes the basics of the system.
- › Provides step by step guidance
- › Explains bulk import

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TrainER III	
Compiling a National Emission Inventory using CollectER III	
Authors	<i>Tinus Pulles</i>
Purpose of this document	This document provides a self training course in emission inventory compilation, using version III of the CollectER software tool, developed by ETC-ACC under the work programme of the European Environment Agency. The software and this document can be downloaded free of charge from ETC-ACC's web-site at http://ain.ejiniaat.cinet.europa.eu/country_tools/acc/CollectER_III.html .
Version	III.01 This version of TrainER is a renewed write-up of an earlier version of the document. It now has been linked to the third generation of the CollectER / ReportER system: <i>CollectER III</i> .

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TrainER III

Self training document

- › Uses an example inventory for “Middle Earth”
 - › Manual input
 - › Residential heating
 - › Manure management
 - › A large power plant
 - › An integrated steel works
 - › Bulk input
 - › Road transport
 - › Source category

1.A.1.a: Public Power Plants

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3 Building a national inventory using CollectER III

3.1 An example inventory for Middle Earth

This chapter presents an example inventorying activity in a (non-existent) country called Middle Earth (see Figure 3-1). We take the geography of this country from the story by J.R.R. Tolkien, the Lord of the Rings. A limited number of activities is introduced in this inventory and in the course of this chapter updating these data and adding new sources will be demonstrated. Emission factors are taken from the revised EMEP/EEA Guidebook [1].




Figure 3-1 Map of Middle Earth from <http://fan.theonering.net/roloz/collection/baynes>

3.2 Starting a new inventory

Open a blank database

To start a new inventory, open the *CollectER III* application. The application will open in a database that was open in an earlier session of *CollectER III*. In case of a new



TrainER III

Self training document

- Direct import into the MS Access database structure
- Assumes good knowledge of MS Access
- Uses advanced features of MS Excel

WARNING

- Be sure to always make a back up of your **CollectER III** database before you start working directly in MS Access.
- Always check your import carefully in the **CollectER III** tool after you have made changes in the database and assure yourself that the changes are correctly interpreted by the tool and that the result **indeed is as intended.**

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the fuel code in the Excel table is seen by MS Access as a number, whereas the Sources table expects it to be a string. Therefore the MS Access function Str must be used. Since the Str function in MS Access adds a space before the number, the function Trim should be used on top of this.

The Unit_id should be read from the Units table. The final two columns of the query ensure that this is indeed the case.

To see what has happened in the inventory, the new Source details and sources can be viewed in CollectER III by using the restore (menu item File | Restore) of the application. After restoring to the updated database, the Details tree should look like the screen dump below. The sources shown in the Source list will depend on the selection in the Details tree.

source ID	category ID	fuel name	location ID	fuel ID
001	1.A.30a	0701a	00000000000000000000	001
02	1.A.30a	0701a	xxxxx	002
03	1.A.30a	0701a	xxxxx	003
04	1.A.30a	0701a	xxxxx	004
05	1.A.30a	0701c	xxxxx	005
06	1.A.30a	0701c	xxxxx	006
07	1.A.30a	0701a	xxxxx	007
08	1.A.30a	0701a	xxxxx	008



Teşekkür Ederim
Thank you