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Version 2.9

User Guide

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1. Introduction

EUROTRACE – What does it do?

EUROTRACE is a powerful and flexible software application that provides the structures and tools for the management of statistical data.

EUROTRACE can be used as a production system for the integration, validation and management of statistical datasets and can be use with the following DBMS: MS ACCESS ORACLE SQL Server

EUROTRACE can create and store 'histories' of data processing, thus allowing for the management of historical data processing information.

EUROTRACE enables the efficient exchange of data between applications.

EUROTRACE provides a complete toolset for the processes of statistical production and management.

EUROTRACE is therefore suitable for database administrators who require complex functionality and also for end users who will want less complex features.

EUROTRACE integrates with the standard software tools used by Eurostat. For example, data can be imported and exported, using all of the main file formats used by Eurostat.

Text CubX MS Excel MS Access New Cronos EUROTRACE data Viewer Structured text files

Other data source formats Other data storage formats

EUROTRACE'S broad functionality reflects Eurostat's diverse data processing needs.

The level of sophistication of the software is controlled by the allocation of user permissions. These are granted by the database administrator.

The database administrator should therefore manage the implementation of EUROTRACE. They can set up individual 'user' accounts and assign appropriate 'user profiles' to individuals. These user profiles assign various 'permissions' and

'rights' to access the different levels of features and thus also provide the statistical domains with security.

IMPORTANT NOTICE

The free SQL Server Express edition (2005 or 2008) has a **size limit of 4 gigabytes** for each domain. If you need to create / convert a big domain, you need to install a licensed version of SQL Server.

The length of domains and/or datasets names can be a problem converting a domain from Access to SQL or Oracle, because there are limits, especially in Oracle, regarding the length of names.

In SQL and Oracle all the nomenclature and datasets tables are stored in one single file. To make all the objects visible to the system, the table names have the following structure:

For datasets, DomainName_DATA_datasetName

For dictionaries, DomainName_DIC_dictionaryName

If you will get an error message during the conversion, you should rename in the Access domain the dataset / dictionary name that cannot be converted, and restart the conversion procedure.

Another problem during the conversion is the **use of special characters in Access names**, like spaces, "-","/". These characters are not accepted in SQL and Oracle, and Eurotrace convert them automatically to "_" during the upsizing process. But it could happen that Access names contains other kind of special characters ("&", "\$", "*"and so on). In this case you will get an error message. You should rename in the Access domain the dataset / dictionary name that cannot be converted, and restart the conversion procedure.

SQL Server doesn't support downgrade.

This means that when you create as new or convert one domain with a specific version of SQL Server, this domain cannot be opened and used with earlier versions of SQL.

For example if one domain has been created or converted using SQL 2008, trying to open it with the 2005 version you'll get the following error message:

Eu_Connections
The database 'C:\ANTIGUASQL\ANTIGUA33.MDF' cannot be opened because it is version 655. This server supports version 611 and earlier. A downgrade path is not supported. (-2147467259)
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The same problem can occur trying to open a domain built with SQL standard edition with the Express edition.

2. What's new in EUROTRACE 4.3.x ?

The latest version of Eurotrace has been improved with new outlier detection features:

The virtual datasets definition has been extended in order to enable the definition of a virtual dataset to multi-table datasets in Microsoft Access DBMS storage.

3. EUROTRACE Terminology

To make EUROTRACE easier to use, the application is based upon the terminology commonly used at Eurostat.

Because EUROTRACE has been designed for users who are familiar with Eurostat terminology and operational procedures, some understanding of these terms and procedures is recommended prior to using the software.

Some of the more important terms are described below:

A statistical **DOMAIN** is a like a statistical theme, and consists of an integrated group of datasets and associated classifications.

A **DATASET** is a file of data records. Each record contains many individual fields. There are two main types of field within a record:

Field codes – These store codes such as a country identifier code for example, the 2 digit ISO country identifier codes.

Field values – These store values such as the amount, or cost, of a particular commodity. I.e. - the number of tonnes in weight.

The **field codes** in a record can be automatically checked. This is done by linking the fields to valid lists of appropriate **NOMENCLATURES**. These nomenclatures are lists of officially approved classification codes and labels. When used to validate and cross check records the lists of valid codes are referred to as **DICTIONARIES**.

Each dictionary of valid codes can have limitations applied to the range of codes that are defined for and then associated with, a particular dataset.

For example a global list of country codes might be limited in range to include just the country codes for the European Union Member States. These limits to ranges or sub sets of valid dictionary codes are called dictionary **SCOPES**.

Dictionary scopes allow the validation of record elements, pertaining to specific nomenclatures codes for individual sets of data. Scopes can also be used when importing and exporting data to restrict the sets of data selected. Dictionaries and scopes are therefore used to filter and select data and so control the quality of the data that are stored within datasets and extractions.

Bad records that have field codes that don't comply with the assigned nomenclatures in the specified dictionaries and scopes can therefore either be filtered out for fixing locally, or be filtered out for return to the data providers for correction. The **field values** can also be crosschecked against value **VALIDATION RULES.**

Validation rules can be set up to work with SQL type statements to check the values when importing and loading datasets. For example 'value must be greater than 1' but less than 1 million.

Using validation rules, to test the data, **OUTLIERS** can be detected – these are values that seem extreme compared to the majority of other values in a given set. Extreme outlier values could be values that are in error. EUROTRACE can detect such values and filter these records to a separate file that can then be amended or returned to the data supplier.

Both validation rules and dictionary based nomenclature field code checking can be established to run automatically when importing data into a dataset structure.

Each dataset may have a different structure and is linked to all, or part, of a shared domain **CLASSIFICATION PLAN.**

A classification plan consists of the definitions of the structures and contents of the data sets, dictionaries and rules for the loading validation and storage of the statistical data pertaining to a particular statistical domain.

The classification plans, can be stored and modified as required using the tools within EUROTRACE.

Data can be extracted and exported from datasets ready for importation, analysis and viewing, using the EUROTRACE data viewer/editor.

The database administrator manages the users of the database, by assigning them a particular 'status' or **USER PROFILE**.

The database administrator will establish different user profiles for different types of users depending upon their day to day needs for certain functionalities.

These user profiles determine what the user is able to do, and what they are not able to do within the database. They effectively assign PERMISSIONS. They help to provide security and also to provide the users with the level of functionality that they require – not everyone will want to see or have open access to all of the EUROTRACE DBMS functionality.

The database administrator manages the definition of the user profiles and allocates these user profiles to the different users in accordance with their needs.

If you don't see the functionality that you need, when using the EUROTRACE DBMS – it might be because you need to request from the database administrator a different user profile that has more permissions granted.

Similarly, if you find that your EUROTRACE DBMS environment is too complicated – you could ask the database administrator to provide you with a user profile that is better suited to your needs. This might be a user profile that has different or less permissions granted.

Some people might only need the functionality found within the EUROTRACE Editor Application, rather than all of the functionality found within the EUROTRACE DBMS application.

Establishing which users need what functionality, is the job of the project manager and they, in association with the Database Administrator should set up the User Profile allocations accordingly.

EUROTRACE is therefore fully configurable, in terms of functionality and permissions, via the application of database administrator defined user profiles to the users of the statistical domain.

The EUROTRACE functionality that you have depends upon how your database administrator has configured the specific user profile that they have assigned to you.

If you don't have particular menu options, or if you see some menu buttons 'greyed out' – it is because these particular functions have not been granted by the database administrator within the definition of the user profile that the database administrator has assigned to you.

4. EUROTRACE System Overview

Secure and transparent relational environment Innovating by integrated processing and validation tools User friendly and flexible multidimensional system Integrated with Eurostat's environment and policy

A EUROTRACE Domain is composed of an integrated group of Datasets and Classifications. One domain can contain many different datasets. Each dataset may have a different structure and is linked to all, or part of, a shared Classification Plan.



Clear and Documented Relational Storage

EUROTRACE's storage structure can be accessed and interpreted on standard platforms with applications like Microsoft Excel, Access, etc.

The system is designed to store data in many file formats and structures. Datasets can be optimised for size, speed and consistency by defining how codes and values are stored.

Multiple Data Type Definition

More than one data type can be stored in each dataset. Each data type can be different

(Numeric, text, memo, date, metadata, etc...)

EUROTRACE can exchange data with different file formats

Import	EUROTRACE	Export
Text CubX MS Excel MS Access	MS Access ORACLE SQL Server Other data sources	MS Access EUROTRACE Viewer/Editor Comext MTX
Other data s	sources	

The Basic integrated features of EUROTRACE ensure that only validated data can be stored.

All codes are checked against dataset classification plans and structures. Double and existing records are checked and the user is prompted before any changes to the database are made. The data flow is designed so that error and relocated data are stored in separate historical tables.

Advanced features offer powerful validation possibilities.

User defined validation and transformation rules can be added and stored for more detailed data preparation. Advanced data filters allow you to enhance the quality of your data.

Visual control of data operations and facilitated processing plus error diagnostics

You can see the data at different stages of processing, data processing is displayed step by step, and all operations are automatically registered in a log file. Visual control and storage of errors makes error diagnostics easier. Transformation rules allow for auto-correction during importation. Errors can be processed directly in the EUROTRACE interface.

EUROTRACE is User Friendly and Portable

It is compatible with all the most recent Microsoft Windows operating systems. Familiar Windows interface components and the clear and organised data flow makes EUROTRACE easy to use. It is developed for all levels of users from Database Administrators to the end users

EUROTRACE is integrated with the data flow in Eurostat, and allows bi-directional communication with the reference and diffusion environment of Eurostat. It runs on the platforms and software most commonly used at Eurostat, while remaining open to other Eurostat standards.

A EUROTRACE Domain is a group of Datasets and Classifications. EUROTRACE allows you to generate autonomous extractions containing the tables, their structure definitions and common classification plan in one single file.

Multi-lingual

EUROTRACE is able to store codes and labels in different languages that are accessible throughout the application. The language of the interface is set by the user to either French, or English.



5. The EUROTRACE File System

5.1. Under MS ACCESS

EUROTRACE generates several different files when you create a domain. It is useful for database administrators to understand the file system to make effective use of all the functions of EUROTRACE.

The EUROTRACE files will be stored in the directory that you specify when you create a EUROTRACE Domain. Some can only be opened by the EUROTRACE application others can be opened outside EUROTRACE by using Microsoft Access.

Files that can only be opened by EUROTRACE

All the definitions and structures of the EUROTRACE Domain, including links between the dictionaries and datasets are stored in a file with the **'.dom'** extension. This file can only be opened with EUROTRACE.

.dom Domain definitions and structures.

Files that can be opened by the MS Access DB engine:

When you create a EUROTRACE Domain, the following files will be generated automatically as you work:

- .plc This file contains the nomenclatures used for the domain, as well as the Scope definitions. This file can be viewed and edited with MS Access, and can be protected with a password from within EUROTRACE.
- .bki This file contains schema for text file importation.
- .dta This file is where the actual data are stored as well as the:
- **Error table** This stores any error records that occur when you import data to your EUROTRACE Dataset.
- History table Stores relocated and updated records when you import data.
- **Operations table** This is a log table that keeps track of all operations performed within a dataset, including user name, time and date, types of operations, as well as the number of null, error, new, updated, and deleted records.

For each dataset you create within a domain, EUROTRACE will generate one **'.dta'** file. The name of the **'.dta'** file will be a combination of the domain name and the dataset name (domain name_dataset name.dta).

.bak Backup files are created automatically when you delete a Dataset or change the structure, and will be stored with the **`.bak'** extension.

N.B. If you have a multi-file defined then the title of the .dta files will be in the form domain name_datset name_multi-file item.dta

For example, if the year is part of the multi-file the domain name is XX and the dataset YY the .dta files are called:

XX_YY_1998.dta XX_YY_1999.dta and XX_YY_2000.dta

If you have more than one dimension in a multi-file, for example, year and also period – to illustrate the point we will use period 01 - the names would be :

XX_YY_1998_01.dta, XX_YY_1999.01.dta and XX_YY_2000.dta - plus also however many other periods you specify period 02. 03 etc.

Therefore, normally a domain will have only 1.dta file, but where multi-files have been used, it is possible that the domain can have more than one .dta file. In which case the first set of naming conventions are applied in the case of one dimension being used in the multi-file and the second set of naming conventions apply in the case of two or more dimensions being included in the multi-file.

In all cases a '.dta' file is created once you create a dataset within a domain.

EUROTRACE Environments and Privacy

EUROTRACE has been designed to work in a networked environment.

This means that whilst it <u>CAN</u> be implemented as a stand-alone system on a single PC – it will probably be used most effectively within a network context. This is particularly so where dictionaries and nomenclatures are stored and managed centrally rather than being distributed with multiple copies locally.

It is important therefore for EUROTRACE users to appreciate the concept of **locally stored files** and **files stored at another location via their network.**

A locally stored file is a file that is stored on the users local PC hard disc drive. A file stored at another location is one stored not on the users local PC hard disc drive, but on another storage disc in a different network location. This is important because – not all files that are stored locally are necessarily visible via the network. The Users have the ability - in some cases – to ensure that their local files are not viewable or accessible via the network.

This means that it is possible for the users to establish some degree of privacy at a local PC level using EUROTRACE. This could be most relevant when processing confidential data.

Setting the privacy of an object

Every time a user creates an object, they have the chance to set the objects 'Properties'. For example: a dictionary.

It is within these properties that the privacy status of the object is set. There are 3 levels of privacy status. These relate to the 'ownership' properties of the object. By choosing the most appropriate form of 'ownership', the user can set the privacy status of the object and therefore control how the object is seen by other people connecting to the domain.

Tip! Don't forget that the database administrator has extensive powers to create custom profiles that grant permissions for actions on both objects and their associated data. By allocating appropriate profiles to the users, the database administrator can also control what any specific user is allowed to see, and do.

The three levels of object ownership are:

Public Read only Private

They are described on the properties screen for each object.

🖀 Dictionary Properties 🔋	×
General Structure OwnerShip Fields	
Object Owner 🛛 🕵 Admin	
Take OwnerShip	
_ Visibility	1
 Public : All users, according to their rights, can use this object and modify its definition 	
 Read-Only : All users, according to their rights, can use this object but they can't modify its definition 	
 Private : Definition and Datas can not be accessed by another User 	
OK Cancel	

The database administrator will be able to see all the objects that you create regardless of their ownership / privacy status.

In general it is better to discuss and agree a planned and structured approach to file keeping when using EUROTRACE.

The database administrator should propose a suitable structure given their knowledge of the network available.

The database administrator should also allocate, to the users, suitable user profiles which will in turn grant them appropriate permissions to view, create, delete and edit, the various object structures and also the data within these objects and structures.

It's a good idea for the database administrator to plan the security requirements of the domain before implementing the final working domain.

Privacy and security requirements are usually closely related and can often be managed accordingly.

5.2. Under ORACLE

For **Oracle DB**, users will have to specify the Driver to use as well as the name of the database (where the dedicated table space is available), the user ID and the password for the connection to the database.

The Test button enables you to check if parameters enable you to connect properly to the database.

🛱 Domain Prope	erties	? 🗙
General Structur C Microsoft Acce C SQL Server Da O ORACLE Data	e Security Storage iss Database atabase base	
Driver Oracle in	OraHome92	•
Database	cxt2	
User Login	paola	
User PassWord You must provi	*** de ODBC Driver for ORACLE,	
Database (DBC Access, and a User must have	() to initialise Database Server User Login with Password. (This administrative permission) Parameter	s
	ОК Са	ancel

Oracle storage parameters

When creating a new domain, and after having filled all Oracle connection parameters, some advanced storage features become available. To modify these parameters, connection to Oracle database must be tested and validate. The test is done by clicking on the Test Button.

😫 Domaiı	ı Properties 🔹 🤶 🔀
General C Micros C SQL S © ORAC	Structure Security Storage of Access Database erver Database LE Database
Driver	Dracle in OraHome92
User Lo User Pa	Eurotrace
You m Datab Acces Usern	Parameters checked successfully.
	Parameters
	OK Cancel

Then the button "Parameters" becomes available.

🛱 Domain Prop	erties	?
General Structur C Microsoft Acco C SQL Server D C ORACLE Data	re Security Storage ess Database atabase abase	
Driver Oracle in	1 OraHome92	-
Database	cxt2	
User Login	paola	
User PassWord	жж	
You must prov Database (DBI Access, and a User must hav	ide ODBC Driver for ORACLE, Q) to initialise Database Server User Login with Password. (This e administrative permission) Parameters	
	OK Car	icel

This option "Parameters" give access to the following screens:

Parameters		
Oracle parameters		
Select indexes alternate table	space	
		•
EXAMPLE		~
KP_I		
KP_T META I		
ODM		✓
	OK	Canaal
	UK	Lance
Parameters		
S Parameters		
Parameters Oracle parameters Select indexes alternate table	space	
Parameters Oracle parameters Select indexes alternate table NCR_DATA	space	
Parameters Oracle parameters Select indexes alternate table NCR_DATA Sustem table Index	space	
Parameters Oracle parameters Select indexes alternate table NCR_DATA System table Index Start size :	space	
Parameters Oracle parameters Select indexes alternate table NCR_DATA System table Index Start size : Extend step size :	space	

Parameters		
Oracle parameters		
Select indexes alternate ta	able space	
NCR_DATA		•
System table Index		
Start size :	256	👻 КЬ
Extend step size :	256 512	🔼 КЬ
🔲 Generate log file	1024 2048	
	4096	
	16294	ncel
	32768	✓

Select indexes alternate table space:

Select the table space that will be used to store all indexes generated for the current domain. This is useful to manage available space and separate the table's table space from the indexes table space.

Index Start size:

Indicates the space allocated to the first segment of the new table created. It's possible to specify a custom size.

Index Extend size:

Indicates the space allocated to the second and following segment of the table when new data are added to it. It's possible to specify a custom size.

Generate log file:

Indicates if a log file if generated. A log file could be useful for Oracle optimizations.

By default this option isn't activated.

5.3. Under SQL Server

For **SQL Server DB**, users will have to specify the Driver to use. The driver can be local, and in this case the button "DB Browse" is enabled, to select the path for the new domain. The fields "Database" and "Server" are disabled.

🛱 Domain Properties	? 🗙
General Structure Security Storage Microsoft Access Database SQL Server Database ORACLE Database	
Driver Microsoft SGL Server Express Edition 2 Developee Us Select a path	005 - LOCAL
DE DE dev EuDBMS DE dll dll EN EuConnections	DB Browse
Cancel Select	OK Cance

If the driver is not local, the button "DB Browse" is disabled, because the domain will be created in the remote machine, and the fields "Database" and "Server" are enabled to insert the proper informations.

For the login, in SQL Server there are two possible options: *Window authentication* and *SQL Server security*.

With Window authentication ,user ID and the password for the connection to the database are not required, and the relative fields are disabled.

Domain Properties	? 🔀
General Structure Security Storage Microsoft Access Database SQL Server Database ORACLE Database	
Driver Microsoft SQL Server Express Edition 2005 - LOCAL	•
Database D:\dev\EuDBMS\ User Login	_
User PassWord	
Server Windows authentication SQL Server security	
OK	Cancel

Clicking on SQL Server Security, user ID and the password for the connection to the database are required, and the relative fields are enabled

🛢 Domain Prop	erties	? 🗙
General Structu Microsoft Acc SQL Server D ORACLE Data	re Security Storage ess Database atabase abase	
Driver Microsof	t SQL Server Express Edition 2005 - LOCAL	•
Database	D:\dev\EuDBMS\	_
User Login	paola	_
User PassWord	*****	_
Server	[
C Windows © SQL Ser	authentication DB Browse DB Browse	
	ОК	Cancel

Domain Properties	×
General Structure Security Storage	
 Microsoft Access Database SQL Server Database ORACLE Database 	
Driver Native Client 9.0 - SQL Server Express - LOCAL	
Database C:\dev\	
User PassWord	
Server	
Windows authentication SQL Server security	
0K Cancel	

For SQL Server 2005 or 2008 Express Edition local select the first option.

If this will not work, even with the **express edition** you can use the **third option** of the drop down menu:

Domain Properties	?×
General Structure Security Storage	
 Microsoft Access Database SQL Server Database ORACLE Database 	
Driver Native Client 9.0 - SQL server 2005 / 2008	•
DB/Path C:\dev\	-
User Login	
User PassWord	
Server intra616\SQLEXPRESS	
Windows authentication DB Browse DB Browse	
OK Can	cel

In the Server field write the hostName\SQLEXPRESS

For SQL Standard Edition, LOCAL or REMOTE, select the third option and write the host name in the *Server* field.

Domain Properties	×
General Structure Security Storage	1
 Microsoft Access Database SQL Server Database ORACLE Database 	
Driver Native Client 9.0 - SQL server 2005 / 2008	
DB/Path C:\dev\	
User Login	
User PassWord	
Server intra616	
Windows authentication SQL Server security	
OK Cancel	

6. System Requirements

EUROTRACE is designed to run on most Microsoft Windows operating systems with a minimum of system requirements.

The performance of the application will depend upon a number of factors including: the size of the databases, the speed of the processor, the configuration of the PC, the storage of the domain, the other concurrent tasks that might be running etc.

Please note that when using EUROTRACE with a network – the performance of the network and the volumes of data that you are transferring will influence the overall impression of performance.

Minimum Requirements

Pentium II processor-based personal computer or compatible, Microsoft Windows XP 512 MB RAM, 200 MB of available hard disk space (not including the space required for databases as this could vary).

Recommended Requirements

Pentium IV 2.5 to 3.0 GHz or AMD DualCore 3800+ processor Microsoft Windows XP or Windows7 512 MB to 2 GB of RAM 400 MB of available hard disk space (not including the space required for databases as this could vary).

To make full use of the data stored in the EUROTRACE domains, we recommend that you have a DBMS, spreadsheet, and /or multidimensional browser application installed. For example: Microsoft Access, Microsoft Excel or EUROTRACE Viewer. To build SQL Server or Oracle domains, SQL Server or Oracle standard editions must be installed on the machine.

VERY IMPORTANT: click on control panel - regional and language options and set it to English UK or US

7. Installing EUROTRACE

EUROTRACE installer can be obtained from the User Support web site <u>http://circa.europa.eu/irc/dsis/eurotracegroup/info/data/website/EN/group EN.ht</u> m or on CD ROM available at Eurostat.

The EUROTRACE package installers change depending on the User's Operating system: Windows7 & Windows XP.

7.1. Windows 7 & XP installers

Run **Eurotrace_System_Setup_all.exe** installs the five applications.

Eurotrace_dbms_3_0_6.exe Eurotrace_editor_2_1_15.exe WinTIM_1_0_0.exe Comext_Browser_8_3_0.exe Oracle_XE_Client.exe

Once the installer for the EUROTRACE package is running, the following windows appears:



Click on Next to continue in order to obtain the list of the components that can be installed:

🗑 Eurotrace Setup		
Choose Components Choose which features of Euro	trace you want to install.	Vaio
Check the components you wai install, Click Next to continue,	nt to install and uncheck the com	ponents you don't want to
Select components to install:	 Eurotrace DBMS Eurotrace Editor TIM Indices Module Oracle XE Client 	Description Position your mouse over a component to see its description,
Space required: 87.4MB		
Nullsoft Install System v2,30 ——	<pre>Back</pre>	Next > Cancel

By default all the components are checked for installation.

Oracle XE Client is needed only if the user will run the Web Comext application. Web Comext is not part of the Eurotrace package, but interacting with Eurotrace DBMS needs the installation of the Oracle client.

8. How EUROTRACE works with languages

EUROTRACE supports different languages, in two different ways.

The software user interface

The software user interface can be switched between any one of three languages French, German and English.

You can change this using the Tools Menu, Options sub menu, Misc. Tab and then select your language of choice from the Interface Language Drop down list box.

The second way in which EUROTRACE supports different languages concerns The data storage.

This is a separate and distinct useage of language.

The data storage

The data storage means, the storage of datasets, dictionaries, classification plans and all the objects associated with a EUROTRACE Domain.

Each object, can support labels and memo fields in different languages. You can establish these when you create the objects or later on by changing the objects properties.

All new domains by default support the three working languages of the European Commission – French, German and English and you may add support for any or all of the languages in the list below :

Italian Spanish Portuguese Greek (but not support of the Greek characterset) Dutch Swedish Danish Finnish

Luxembourgish

However each time you do add a language to the default 3 languages you will be increasing the size of the database storage- with very large datasets this might incur costs in performance and storage size.

We therefore recommend that the minimum number of languages necessary be used to reduce the file sizes, reduce the network traffic and increase the system's performance. Thus it is possible to be working in Eurotrace with the Interface working in German and the domains labels and memo fields being displayed for example in Finnish.

Tip ! Remember this – You can independently switch the Language of the interface or the language of the data or change both – but each requires a separate change.

9. SQL Server Configuration

9.1. SQL Server setup

Set up sql server 2005 to accept local and remote connections:

You need SQL server and Window authentication to connect with user name and password to the remote server.

Open SQL server Management Studio. In Object Explorer, right click on the instance name and select Properties.



On the left, select Security and change Server authentication to SQL Server and Windows Authentication mode. If the choice is already selected, that means you have already allowed SQL Server authentication.

🚪 Server Properties - INTR	A111\SQLEXPRESS	
Select a page General Memory Processors Security Connections Database Settings Advanced Permissions	Script	
Connection	Password: ******	
Server: INTRA111\SQLEXPRESS Connection: LUX\pozpao IV View connection properties	Options Enable C2 audit tracing Cross database ownership chaining	
Progress		
C Ready		
	ОК	Cancel

To be able to work both in local and remote we need to enable communications via TCP-IP and pipes.

First of all we enabled remote connection on SQL Server Surface Area Configuration

start-all programs-microsoft sql server 2005 – configurations tools- SQL Server Surface Area Configuration

🛅 Comext System	•			
📷 MOOS Project Viewer	≁			
🖮 Microsoft SQL Server 2005	Þ	🖬 Configuration Tools 🔹 🕨		SQL Server Error and Usage Reporting
📷 Microsoft SQL Server 2008	→	🕵 SQL Server Management Studio Express	۲.	🚡 SQL Server Configuration Manager
🛅 TeamViewer 6	•		6	📅 SQL Server Surface Area Configuration
🛅 Oracle Database 10g Express Edition	→			

Select Surface Area Configuration for Services and Connections.

Microsoft SOI Server 2005	ows Server System
Help Protect Your SQL Server	
 Minimize SQL Server 2005 Surface Area SQL Server 2005 improves manageability and security by giving administrators more control over the surface and remote instances of SQL Server 2005. With the SQL Server 2005 Surface Area Configuration tools, you Disable unused services and network protocols for remote connections. Disable unused features of SQL Server components. For new installations, use these tools to enable required features, services, and network protocols that are dis default. For upgraded instances, use these tools to identify and disable unused features, services, and protocols Users with administrative privileges on Microsoft Windows Vista and later versions will no longer have administrator, below link: 	area of local can easily: sabled by cols. strative click on the
 Add New Administrator Read more about configuring the SQL Server surface area. 	
Configure Surface Area for localhost <u>(change computer)</u> Surface Area Configuration for Services and Connections Surface Area Configuration for Features	

On the left side, expand your SQL Server instance -> Database Engine -> Remote Connections. On the right side, select Local and remote connections -> using both TCP/IP and named pipes.

🐐 Surface Area Configuration for S	Services and Connections - localhost	×
SQL Server 2005 Surfa Help Protect Your SQL Server	ace Area Configuration	
Enable only the services and connection protect your server by reducing the surfa	n types used by your applications. Disabling unused services and connections helps ce area. For default settings, see <u>Help</u> . s services and connections:	
 ☐ SQLEXPRESS ☐ Database Engine Service ★ Remote Connections ⊕ SQL Server Browser 	By default, SQL Server 2005 Express, Evaluation, and Developer editions allow local client connections only. Enterprise, Standard, and Workgroup editions also listen for remote client connections over TCP/IP. Use the options below to change the protocol on which SQL Server listens for incoming client connections. TCP/IP is preferred over named pipes because it requires fewer ports to be opened across the firewall.	ls
	 Local connections only Local and remote connections Using TCP/IP only Using named pipes only Using both TCP/IP and named pipes 	
View by Instance View by Component		
	OK Cancel Apply Help	

Now in the Sql configuration manager we enable shared memory, pipes and TCP-IP in server protocols:

ile Action View Help ■ → 🖻 🖼 🗟 😫		
 SQL Server Configuration Manager (Local) SQL Server 2005 Services SQL Server 2005 Network Configuration Protocols for SQLEXPRESS SQL Native Client Configuration Client Protocols Aliases 	Protocol Name Shared Memory Named Pipes TCP/IP	Status Enabled Enabled Enabled Disabled
And client protocols:

ile Action View Help			
• → 🗈 🗊 🖟 😫			
SQL Server Configuration Manager (Local)	Name	Order	Enabled
SQL Server Configuration Manager (Local)	😙 Shared Memory	1	Enabled
SQL Server 2005 Network Configuration	TCP/IP	Order Enabled ared Memory 1 Enabled P/IP 2 Enabled	
Protocols for SQLEXPRESS	Vamed Pipes	3	Enabled
Solution Client Coordiguration	T VIA		Disabled

Restart sqlexpress and browser services, being sure that are running as network services

Name	State	Start Mode	Log On As
SQL Server (SQLEXPRESS)	Running	Automatic	NT AUTHORITY\NetworkService
SOL Server Browser	Rupping	Manual	NT AUTHORITY\NetworkService

All the previous steps must be done in both client and server machines.

9.2. User account on remote machine

Give generic access on the remote machine to a specific user:

In the remote machine, using the SQL server management studio, select security/logins/new login



Write on the top of the new dialog the new user name you want to add

🖥 Login - New			
Select a page	🔄 Script 🝷 🛐 Help		
Image: General Image: Server Roles Image: Server Mapping Image: Securables Image: Status	Login name: Windows authentication SQL Server authentication Password: Confirm password: Enforce password policy Enforce password expiration User must change password Mapped to certificate Certificate name:	LUX\cadseb Sgan	ch
	 Mapped to asymmetric key 		
Connection	Key name:		
Server: INTRA616\SQLEXPRESS Connection: LUX\pozpao View connection properties Progress Ready	Default database: Default language:	master <default></default>	×
		OK Can	cel

Then click on Server Roles and set the privileges for this user



Click on OK and the user will be able now to connect remotely with the server.

Give access to an existing database on the remote machine to a specific user:

In the server machine we have now to create a user account for the remote user in the sqlserver manager tool run the query:

CREATE USER testUser CREATE LOGIN testUser with password = `testPassword'

then you have to grant privileges to the user.

On the DB list right click on the instance name and select Properties - permissions.

You should have a window with the user name just defined. You should click in ALL the permissions for this user (valid only for that database).

🥫 Database Properties - D:1	DEV\SQLDOMAIN\PAOL	ASQL08.MDF				
Select a page 🚰 General	age Script • Iso Berver name: INTRA333\SQLEXPRESS View server permissions Database name: D:\DEV\SQLDOMAIN\PAOLASQL08.MDF Users or roles: Name Type age pozpao1 User					
i∰ Files ∰ Filegroups	Server name:	INTBA	333\SQLEXPRESS			
Permissions	View server permissions	DIDE			4	
T Extended Properties	Users or roles:	DINER	VISQLDUMAIN (PAU	JLASQLU8.MDF		
	Name			Τy	pe	
	🔔 pozpao1			Use	, Bl	
	🙏 testill ser			Use	a.	
	<					
	Effective Per	missions	ן	Add	Rem	ove
oppering	Effective Per Explicit permissions for tes	missions stUser:]	Add	Rem	ove
Lonnection	Explicit permissions for tes Permission	missions stUser: Grantor	Grant	Add With Grant	Deny	ove
Server:	Effective Per Explicit permissions for tes Permission Alter any application r	missions stUser: Grantor dbo	Grant	Add	Deny	ove
Server: INTRA333\SQLEXPRESS	Effective Per Explicit permissions for tes Permission Alter any application r Alter any assembly	missions stUser: Grantor dbo dbo	Grant	Add	Deny	ove
Server: INTRA333\SQLEXPRESS Connection: LUX\pozpao	Effective Per Explicit permissions for tes Permission Alter any application r Alter any assembly Alter any asymmetric	missions stUser: Grantor dbo dbo dbo	Grant	Add	Deny	ove
Server: INTRA333\SQLEXPRESS Connection: LUX\pozpao	Effective Per Explicit permissions for tes Permission Alter any application r Alter any assembly Alter any assembly Alter any certificate	missions stUser: Grantor dbo dbo dbo dbo	Grant	Add	Deny Composition	ove
Server: INTRA333\SQLEXPRESS Connection: LUX\pozpao View connection properties	Effective Per Explicit permissions for te: Permission Alter any application r Alter any assembly Alter any asymmetric Alter any certificate Alter any contract	missions stUser: Grantor dbo dbo dbo dbo dbo	Grant	Add	Deny Deny	ove
Server: INTRA333\SQLEXPRESS Connection: LUX\pozpao View connection properties Progress	Effective Per Explicit permissions for te: Permission Alter any application r Alter any assembly Alter any asymmetric Alter any certificate Alter any contract Alter any database D	missions stUser: Grantor dbo dbo dbo dbo dbo dbo dbo	Grant	Add	Deny Deny	ove
Server: INTRA333\SQLEXPRESS Connection: LUX\pozpao View connection properties Progress	Effective Per Explicit permissions for te: Permission Alter any application r Alter any assembly Alter any asymmetric Alter any certificate Alter any certificate Alter any contract Alter any database D Alter any database e	missions stUser: Grantor dbo dbo dbo dbo dbo dbo dbo dbo	Grant Grant V V V V V V V V V V	Add	Rem Deny I <td>ove</td>	ove

Now restart sqlserver 2005 services (application and browser).

Now the connection to the remote database is ready.

9.3. Eurotrace Parameters

You must be able to use your user account in the remote machine (in this example, the userTest login just defined).

For sql express use Use option 2 in the drop down down menu (or option 8 if you are using native client 10.0).

For SQL 2005 standard edition, use option 3.

For SQL Express in the local machine use option 1.

9.4. Eurotrace database field

Domain Prop	erties	?
	SQL Server Domain	
Driver Native (lient 9.0 - SQL Server Express - REMOTE	J
Database	D:\DEV\SQLDOMAIN\PAOLASQL08.M	DF
User Login	testUser	
User PassWord	******	
Server	intra333	
G Window	s authentication	- 10
	ver security	Alse
	OK	Cancel

In the database field write exactly yhe name as you see it in the database list and that you already used in the query to create the user account:



9.5. Eurotrace server field

	SQL Server	Domain	
Driver Native (Client 9.0 - SQL Server	Express - REMOTE	•
Database	D:\DEV\SQLDOMA	N\PAOLASQL08.MDF	
User Login	testUser		_
User PassWord	*****		_
Server	intra333		
C Window	s authentication		
G SQL Ser	ver security	DB Browse	

If you connect to **2005 STANDARD edition** use the same name as you see in the login window of the SQL server Management Studio when you login:

Query Di Di	Connect to Serve	er Window	vs Server System
plorer	SQLServ	/er.2005	onnected - SQLQ
	Server type:	Public Engine	
	Server name:	INTRA431\SQLEXPRESS	×
	Authentication:	Windows Admentication	
	User name:	LUXApozpao	~
	Password		
		Remember password	
	Conne	ct Cancel Help	Options >>

If you use EXPRESS edition write only the machine name, NOT the \SQLEXPRESS .

In this example you should just write INTRA431 for express edition but INTRA431\SQLEXPRESS for standard edition (machinName\instance).

Also if you use option 10 in the drop down menu 10 write in server the full sentence machineName\instance (i.e. intra333\sqlexpress)

Use login name and password as defined in the remote machine.

Connections

🖻 Domain Properties 🛛 🖓 🔀
General Structure Security Storage
 Microsoft Access Database SQL Server Database ORACLE Database
Driver Native Client 9.0 - SQL Server Express - LOCAL
Database C:\dev\
User Login
User PassWord
Server
 Windows authentication SQL Server security
OK Cancel

In the *Driver* drop down list select the SQL server.

For SQL Server 2005 or 2008 Express Edition local select the first option.

If this will not work, even with the **express edition** you can use the **third option** of the drop down menu:

🖻 Domain Properties 🔹 💽 🗙
General Structure Security Storage
 Microsoft Access Database SQL Server Database ORACLE Database
Driver Native Client 9.0 - SQL server 2005 / 2008
DB/Path C:\dev\
User Login
User PassWord
Server intra616\SQLEXPRESS
Windows authentication SQL Server security
OK Cancel

In the Server field write the **hostName\SQLEXPRESS**

For SQL Standard Edition select the third option and write the host name in the Server field.

🖻 Domain Properties 📀 💽
General Structure Security Storage
 Microsoft Access Database SQL Server Database ORACLE Database
Driver Native Client 9.0 - SQL server 2005 / 2008
DB/Path C:\dev\
User Login User PassWord
Server intra616
Windows authentication SQL Server security
OK Cancel

Click on the *DB Browse* button to choose the location where to save the new Domain.

Click on OK to start the conversion.

ATTENTION:

It can happen that just after the OK you get the following error message:



It shows an Operating System error message: the process cannot access the file because it is being used by another process.

It means that Eurotrace application is trying to access the new SQL DB just created too fast, that is SQL server didn't release yet the DB, still locked.

This is not a problem: just change the domain name in the Domain Properties dialog and click again on OK.

ATTENTION: Create new or convert from access a SQL domain using remote connection

When you create ET domain locally, you select a path on your machine where the domain will be created, with all the ET specific files, like domaine.str and the .bki files.

When you create a remote ET domain , the domain of course will be created on the remote machine.

This means that you have to write in the DB\path field a path existing in the remote machine, where you have admin permissions (you create a new database).

The same path (like c:\temp) has to exist on your local machine where the ET specific files (domaine.str, .bki etc) will be stored.

Infact the .mdf and .ldf files SQL server specific are stored on the remote machine, but the ET specific files will be located on any local machine from where a user will connect to the remote domain.

This is for the creation with the menu item "new".

If you convert an access domain with remote connection, the procedure is the same: the domain will be physically created in the remote machine, where you need to have admin rights to create/write/delete files, but in this case on the local machine you need the same path of the remote one, in which you should copy the domaine.str file.

All this is not needed of course if for the conversion you use on the remote machine the same path of the original access domain (in this case the original ET specific files will be used).

10.Domains conversion: From Access to SQL Server

IMPORTANT NOTICE

The free SQL Server Express edition (2005 or 2008) has a **size limit of 4 gigabytes** for each domain. If you need to create / convert a big domain, you need to install a licensed version of SQL Server.

The length of domains and/or datasets names can be a problem converting a domain from Access to SQL or Oracle, because there are limits, especially in Oracle, regarding the length of names.

In SQL and Oracle all the nomenclature and datasets tables are stored in one sigle file. To make all the objects visible to the system, the table names have the following structure:

For datasets, DomainName_DATA_datasetName

For dictionaries, DomainName_DIC_dictionaryName

If you will get an error message during the conversion, you should rename in the Access domain the dataset / dictionaty name that cannot be converted, and restart the conversion procedure.

Another problem during the conversion is the **use of special characters in Access names**, like spaces, "-", "/". These characters are not accepted in SQL and Oracle, and Eurotrace convert them automatically to "_" during the upsizing process. But it could happen that Access names contains other kind of special characters ("&", "\$", "*" and so on). In this case you will get an error message. You should rename in the Access domain the dataset / dictionaty name that cannot be converted, and restart the conversion procedure.

10.1. Selection of conversion options:

In the *Tools* menu a new item has been added: *Export Domains to DBMS*

To convert an Access domain to a SQL server domain select the subitem SQL Server.

There are two conversion options:

Nomenclature – DS structure will create a SQL Server domain with the full nomenclature (dictionaries) and Datasets with the same structure as in Access, but the DS data will not be transferred.

Nomenclature – DS structure – Data will create a SQL Server domain with the full nomenclature (dictionaries) and Datasets with the same structure as in Access, with all the data contained into access datasets.

🔀 Eurotrace - DOMINICA		
Domain Language DataSet	Tools Help	
DataSet State	Change PassWord Check Domain Domain Backup/Restore Update Domain Export Domain to DBM5	nition 🔄 Views 🗙 Errors 😭 History 🧔 Import Or 🕩
COURSE OF COURSE	Users Definition	ORACLE Nomenclature - DS structure - Data
	Console Execute SQL Compact Text file interpreters Add-Ins	L→ Period : Period Form : Form no tem : Item no Office : Customs Office Day : Day of declaration Frader : Importer/Exporter
	Options	Fransport : Mode of Transport
	1 고 (1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	I ransportnat : Nationality of Carrier CPC : Customs procedure code Commodity : Commodity Origindestination : Origindestination NetWeight : Net Weight GrossWeight : Gross Weight SUQTY : Supplementquant CustomsValue : Customs Value OtherCharges : Other Charges Freight : Freight Insurance : Insurance
Ready		9:30 AM

10.2. Domain Conversion

After the menu item selection, the following dialog will appear:

	SQL Server Do	main	L
DB name		_	
Driver Native	e Client 9.0 - SQL Server Expr	ess - LOCAL	•
Database	D:\dev\		
Jser Login			
Jser PassWo	rd		_
Server			
C LC L	ws authentication	[2000000000000000000000000000000000000	
(• Windo			

The *DB* name field will contain as default the access domain name, but it can be changed.

In the *Driver* drop down list select the SQL server used.

For SQL Server 2005 or 2008 Express Edition local select the first option.

For SQL Standard Edition select the third option and write the host name in the *Server* field.

🛱 Domain Properti	es	? 🔀
SC	QL Server Don	nain
DB name ASY	CUDACSO	
Driver .NET Framew	vork - SQL server 2005 .	/ 2008
DB / Path	dev\	
User Login		
User PassWord		
Server Intr	a616	
 Windows auth 	nentication	
C SQL Server s	ecurity	DB Browse
		OK Cancel

Click on the *DB Browse* button to choose the location where to save the new Domain.

Click on OK to start the conversion.

ATTENTION:

It can happen that just after the OK you get the following error message:

Eu_Connections	
Impossibile aprire il file fisico "D:\dev\DOMINICA comext\DOMINICAsql.mdf", Errore is being used by another process.)" (-2147467259)	del sistema operativo 32: "32(The process cannot access the file because it
ОК	

It shows an Operating System error message: the process cannot access the file because it is being used by another process.

It means that Eurotrace application is trying to access the new SQL DB just created too fast, that is SQL server didn't release yet the DB, still locked. This is not a problem: just change the domain name in the Domain Properties

dialog and click again on OK.

ATTENTION: Create new or convert a SQL domain using remote connection When you create ET domain locally, you select a path on your machine where the domain will be created, with all the ET specific files, like domaine.str and the .bki files. When you create a remote ET domain, the domain of course will be created on the remote machine.

This means that you have to write in the DB\path field a path existing in the remote machine, where you have admin permissions (you create a new database).

The same path (like c:\temp) has to exist on your local machine where the ET specific files (domaine.str, .bki etc) will be stored.

Infact the .mdf and .ldf files SQL server specific are stored on the remote machine, but the ET specific files will be located on any local machine from where a user will connect to the remote domain.

This is for the creation with the menu item "new".

If you convert an access domain with remote connection, the procedure is the same: the domain will be physically created in the remote machine, where you need to have admin rights to create/write/delete files, but in this case on the local machine you need the same path of the remote one, in which you should copy the domaine.str file.

All this is not needed of course if for the conversion you use on the remote machine the same path of the original access domain (in this case the original ET specific files will be used).

A new dialog will appear, showing step after step the results of the conversion.

🖻 DBMS Export Report 🛛 🔀
Building the DOMINICASql1 SQL Server Domain Connecting to SQL Server Building Domain structure Extracting table Algo Extracting table Constraint Extracting table Design Extracting table Design Extracting table Dictionnary Extracting table Struct_scenario Extracting table Dictionnary Extracting table Dictionnary Extracting table FormDesign Extracting table FormDesign Extracting table Intension Extracting table Dimension Extracting table Dimension Extracting table View Extracting table View Extracting table View Extracting table View Extracting table View Extracting table Groupe Building.DOMINICASQL1_DIC_Commodity dictionary Building.DOMINICASQL1_DIC_Contract_Type dictionary Building.DOMINICASQL1_DIC_CPC dictionary Building.DOMINICASQL1_DIC_CPC to_Trade_Type dictionary Building.DOMINICASQL1_DIC_CPC_to_Trade_Type dictionary
SAVE Log File CLOSE

At the end of the conversion process (that can take several time, depending on the datasets size), the report dialog shows the following messages:

DBMS Export Report		
Building DOMINICASQL1_DIC_Trade_Type dictionary Building DOMINICASQL1_DIC_Trader dictionary Building DOMINICASQL1_DIC_Transport dictionary Building DOMINICASQL1_DIC_XX_Doublon dictionary Building DOMINICASQL1_DIC_XX_Doublon dictionary Building DOMINICASQL1_DER_DECLARATION table Building DOMINICASQL1_DATA_DECLARATION table Building DOMINICASQL1_DATA_DECLARATION dataset Building DOMINICASQL1_DATA_DECLARATION dataset Building DOMINICASQL1_DATA_DECLARATION dataset Building DOMINICASQL1_DATA_DECLARATION dataset Building DOMINICASQL1_DATA_DECLARATION dataset Building DOMINICASQL1_DATA_DECLARATION dataset Building DOMINICASQL1_DATA_SITCCHECKING table Building DOMINICASQL1_DPER_SITCCHECKING table Building DOMINICASQL1_DATA_SITCCHECKING table Building DOMINICASQL1_DATA_SITCCHECKING table Building DOMINICASQL1_DATA_SITCCHECKING table Building DOMINICASQL1_DATA_SITCCHECKING1 table Building DOMINICASQL1_DATA_HSCHECKING1 table Building DOMINICASQL1_DICASQL1_DATA_HSCHECKING1 table Building DOMINICASQL1_DICASQL1_DATA_HSCHECKING1 table Building DOMINICASQL1_DICASQL1_DICASQL1_DICASQL1_DICASQL1_DICASQL1_DICASQL1_DICASQL1_DICASQL1_DICASQL1_DICASQL		
	SAVE Log File	CLOSE

The conversion cannot be fully automatic. Some steps must be completed manually:

- Check carefully the syntax in the validation rules: the SQL language is not the same as in Access

- Check if all the Transcodifications are still valid
- Recreate the Dictionary Classifications
- Check the Datasets scope
- For Derived Datasets: open the Structure and save it without changes.

11.Domains conversion: From Access to Oracle 11.1. Selection options

To convert an Access domain to an Oracle domain select the menu item *Tools* - *Export Domains to DBMS - Oracle*.

There are two conversion options:

Nomenclature – DS structure will create an Oracle domain with the full nomenclature (dictionaries) and Datasets with the same structure as in Access, but the DS data will not be transferred.

Nomenclature – DS structure – Data will create an Oracle domain with the full nomenclature (dictionaries) and Datasets with the same structure as in Access, with all the data contained into access datasets.

11.2. Domain Conversion

After the menu item selection, the following dialog will appear:

ODBC Driver	
ODDO DIIIIOI	
Oracle in OraHome92	-
Oracle server address	
XE	
Oracle UserID	
userOne	
Oracle User's password	

Param	neters

The *Domain* field will contain as default the access domain name, but it can be changed.

Oracle Server address: the Oracle Service name used for the Comext database in the <u>server machine</u>.

Oracle UserID: user name for the Oracle connection

Oracle User's password: password for the Oracle connection

Click on the *Parameters* button to select the Tablespace to be used for the new Oracle tables.

Click on OK and start the conversion.

It will appear the same dialog discussed in the SQL server section, showing step after step the results of the conversion.

At the end of the conversion process (that can take several time, depending on the datasets size), the report dialog will inform the user that the conversion cannot be fully automatic. Some steps must be completed manually:

- Check carefully the syntax in the validation rules: the SQL language is not the same as in Access

- Check if all the Transcodifications are still valid
- Recreate the Dictionary ClassificationsCheck the Datasets scope
- For Derived Datasets: open the Structure and save it without changes.

12.Web Domains Management

The main objective of this section is to explain the management of Eurotrace Domains in order to be accessed by the WEB Comext analytical Interface integrated with Easy Comext.

IMPORTANT NOTICE

Eurotrace application doesn't modify directly the Comext System application DataBase. All the settings related to show/ hide domains or datasets in Eurotrace, are not immediately visible in the Comext System. Eurotrace generates XML files with all the new informations, then the XML file will be sent to Comext System Database to synchronize the two applications.

The Comext System database is an Oracle DB, and **the length of domains and/or datasets names can be a problem** creating an XML file because there are limits regarding the length of names.

If you will get an error message in the XML log file, you should rename in the Access domain the dataset / dictionaty name that is causing the problem, and restart the all procedure: create a new XML file with the *Update* option (see *4.3 Update Domains*) and send again the XML file.

12.1. Menu and login

In the Eurotrace *Tools* menu has been added the new item **Domains Management**



The new item is only available for Eurotrace Administrator. In order to access each one of the three subitems a login is required.

a Password		
Password		

New Password	**********	
	1	OK
New Password	[Close

The default password is "*nontelodico*".

The password can be changed clicking on the *New Password* button.

The *Comext Configuration Parameters* item is used to setup the connection parameters to the Oracle Comext Database to allow the Easy Comext / Web Analytical connections to Eurotrace Domains.

The *Add / Remove Domains* item is used to set the Eurotrace domains and datasets we want to make visible via Web. When we set / change available domains / datasets, the changes are not immediately known by Comext. In order to make these changes available, we have to synchronize Comext setting with Eurotrace settings.

In order to synchronize the applications, we have to click on the *Export XML files* to Comext.

12.2. Comext configuration parameters

Clicking on the *Comext Configuration parameters* menu item the following dialog will appear:

ODBC Driver	
Uracie in UraHome	•92 _
Uracle server XE	
Oracle UserID	
comext	
Oracle User's passv	word

Host [intra898\ad	min
Port 1521	
ocal Oracle Home [Directory
):\oraclexe\app\ora	acle/product/10.2.0

The *Comext DB Parameters* section is related to the Oracle Comext Database that can be local or remote.

ODBC driver: select from the drop-down list the ODBC driver you want to use to set up the connections

Oracle Server: the Oracle Service name used for the Comext database in the <u>server machine</u>.

Oracle UserID: user name for the Oracle connection

Oracle User's password: password for the Oracle connection

Host: (host name) is the host for the Oracle server (remote or local), and *admin* is the name of the folder (accessible from any client) containing the oracle server configuration files (tnsnames.ora and listener.ora).

Port :) is the port number for the Oracle server (remote or local).

Local Oracle Home directory: the Oracle Home directory in the <u>local client</u> <u>machine</u>

13.Doimain Management 13.1.Add Domains

Clicking on the Add / Remove domains menu item the following dialog will appear:

6	i Domains Manag	gement		
	Name ORA01 TESTSQL DOMINICA.dom	Location CXT2 Provider=SQLNCLI.1;Integrated Security= D:\dev\DOMINICA comext\DOMINICA.d	Type Oracle SQL Server Access	Add MS Access Add SQL Server Add Oracle Remove Update
1				Lancel

For each domain are available the following informations: *Name*: domain name

Location: for Access domain (always local) the path on the local machine to the domain, for SQL server domains the connection string with host and path informations, for Oracle domains the server (local or remote).

Type: Oracle, SQL Server or Access.

To add an Access domain click on the Add MS Access button. The following dialog will appear

Select an Acces	s Domain				? 🔀
Look in:	DOMINICA o	omext	•	+ 🗈 💣 🎟	-
My Recent Documents Desktop	Export_LOG	m			
My Documents					
My Computer					
	File name:	I		•	Open
My Network Places	Files of type:	Domain Files		•	Cancel

To navigate on your local machine and select the Access domain you want to make visible.

To add a SQL server domain click on the *Add SQL Server* button. The following dialog will appear

Select a SQL Server D	omain		_ 🗆 🔀
Domain	Adress/SQL UserID	23	
🏟 TESTSQL	@D:\dev\testSQL		
🏟 PAOLASQL08	@D:\dev\sqlD\paolaSQL08		
SRENADAPP	@c:\testsql\grenadapp		
Remove Connection		Open	Close

With the list of Eurotrace SQL Server domains available from your local machine. To add an Oracle domain click on the *Add Oracle* button. It will appear the same dialog as for SQL Server with the list of Oracle domains available from your local machine.

13.2. Remove Domains

To remove a domain from your list just select the domain you want to remove in the *Domains management* dialog and click on the *Remove* button.

Domains Manag	ement		
Name DRA01 JESTSQL DOMINICA.dom	Location CXT2 Provider=SQLNCLI.1;Integrated Security= D:\dev\DOMINICA comext\DOMINICA.d	Type Oracle SQL Server Access	Add MS Acces Add SQL Server Add Oracle Remove Update
			OK Cancel

13.3. Update Domains

The *Update* button must be used when in a domain already set as visible one / more of the following changes have been done:

new datasets have been created

datasets have been deleted

datasets structure has been changed

the list of available datasets have been changed (added or removed)

in an Access domain have been imported new data into a multifile dataset visible.

The domain to be updated will be marked as **

6	Domains Manage	ment		×
	Name ORA01 TESTSQL DOMINICA.dom **	Location CXT2 Provider=SQLNCLI.1;Integrated Security= D:\dev\DOMINICA comext\DOMINICA.d	Type Oracle SQL Server Access	Add MS Access Add SQL Server Add Oracle Remove
				OK Cancel

Then click on OK to generate the new XML file that will be used to synchronize Eurotrace domains with the Comext application.

13.4. Datasets management

To set the list of datasets available for each domain, double click on the domain name in the *Domains Management* dialog. The following dialog will appear:

🖣 Datasets				X
Domain datasets		Available Datasets		CLEAR
Name	Label	Name	Label	
DECLARATION HSCHECKING1 CARICOM SITCCHECKING	Declaration HS GENERAL AND SPECIAL TRADE CARICOM SITC CHECKING	CARICOM	CARICOM	
<) [> <		>
			ок	Close

On the left side there is the list of all the domain datasets, on the right side the list of the datasets available for public access.

To move the datasets from one list to the other, just double click on the dataset name.

Closing the Add/Remove domains window you get the following message:

Eurotrace			X
You must restart t Do you want to re	he Listner.ora fi start it now?	le in \$(Oracle_home)\r	network\admin
		1	

Click on YES and the oracle Listener will be restarted automatically.

13.5. Synchronization of Comext DB with Eurotrace domains

Clicking on the *Export XML files to Comext* menu item the following dialog will appear:

Select an XML	file		?	\mathbf{X}
Look in:	🔁 xmlFiles		• 🖻 🖆 🖭 •	
My Recent Documents Desktop My Documents	Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM Access_DOM	INICA_1122009_8123.xml INICA_1122009_8837.xml INICA_1122009_73318.xml INICA_1122009_74323.xml INICA_1122009_85455.xml INICA_1122009_91528.xml INICA_1122009_101038.xml INICA_1122009_102438.xml INICA_1122009_103217.xml INICA_1122009_103217.xml INICA_1122009_113412.xml INICA_1122009_124055.xml	 Access_DOMINICA_1122009_12413 Access_DOMINICA_1122009_12563 Access_DOMINICA_1122009_12563 Access_DOMINICA_1122009_13103 Access_DOMINICA_1122009_13104 Access_DOMINICA_1122009_13104 Access_DOMINICA_1122009_14343 Access_DOMINICA_1122009_15143 Access_DOMINICA_30112009_1423 Access_DOMINICA_30112009_1423 Access_DOMINICA_30112009_1423 Access_DOMINICA_30112009_1253 Access_DOMINICA_30112009_1253 Access_DOMINICA_30112009_1253 Access_DOMINICA_30112009_1330 	36.xr 33.xr 53.xr 30.xr 47.xr 32.xr 34.xr 34.xr 79.xr 10.xr 958.5 029.5 337.5 029.5
	File name:		▼ Open	
My Network Places	Files of type:	XML Files	Cance	

You can see the list of the xml files generated to synchronize Eurotrace with Comext, into the folder *xmlFiles* in the directory where is installed the Eurotrace application. Select the file you just generated and click on OK.

We recommend to delete or move to another location the XML file after the synchronisation is succesfully completed.

At the end of the synchronisation procedure, the following message will appear:



It contains the name and path of the log file, where you can check eventual transfer errors.

It contains the name and path of the log file, where you can check eventual transfer errors.

Click on YES and a new window with the transfer result will open.



Check the end of the log file. The transfer is OK only if at the end of the file you get the following message:

Main() - +++ It took xx minutes xx seconds for the job

If you don't see this message, the transfer was not OK. Send the log file to the tachnical assistance.

If the transfer is OK, closing the log window you get the message:

Eurotrace		
You must restart	the ComextSystem and your	internet browser
	ОК	

Infact if the Comext System was already running on your machine, to see the new updates you must restart the Comext System and your internet browser.

14. Starting EUROTRACE

Start EUROTRACE by clicking on the 'Start' button, Programs, EUROTRACE, and click on the 'EUROTRACE' icon.

				👼 Eurotrace	×	Ē	Dbms	Þ	₽	Eurotrace
Ë	. <u>222</u>	Programs	1	×					թ	Uninstall
1.9	\bigotimes	Documents	•						8	Online Help EN
ģ									3	Online Help FR
Б		Settings	•						2	User Guide EN
à		Search	•						12	User Guide FR
8		boaren								
N S	2	Help								
1	-	Due								
H	<u> </u>	RUN								
ž	I	Shut Down								

This program group could be different depending on the name you specified during the EUROTRACE installation.

When you start EUROTRACE, you will see the window shown below.

🖌 Eurotrace	_ [] ×
<u>D</u> omain <u>T</u> ools <u>H</u> elp	

The application begins with an empty screen and you must first create a new EUROTRACE Domain or open an existing EUROTRACE Domain to continue.

To navigate through around the interface you use shortcut menus, drop down menus and buttons and different Tabs. Before covering these in detail we will consider different ways of opening a domain.

If you have never used the software before you will want to create a new domain.

To create a new domain

Choose the **Domain menu** and then the option called **New...**

According to the DBMS which will be use for the data storage, parameters will be set by the user.

The description of the parameters are described in the section 4 of this user guide.

🛃 Euro	trace				
<u>D</u> omain	<u>T</u> ools <u>H</u> elp				
New					
Open /	Access Domain				
Open	ORACLE Domain				
Open :	SQL Server Domain				
Open i	new existing ORACLE domain				
Open i	new existing SQL Server domain				
Proper	Properties				
Report	Report				
Log Or	n As Different User				
Close					
MS Ac	cess 🕨				
Exit					

To open an existing domain

The procedure to open an existing domain will also be linked to the DBMS in use.

14.1. To open an existing MS ACCESS Domain

To open an existing MS ACCESS domain, the procedure will be the following:

Choose the **Domain menu** and then the option called **'Open Domain'.** EUROTRACE Domain files have the '.dom' extension.

🔀 Eurotrace				
<u>D</u> omain <u>T</u> ools <u>H</u> elp				
New				
Open Access Domain				
Open ORACLE Domain				
Open SQL Server Domain				
Open new existing ORACLE domain				
Open new existing SQL Server domain				
Properties				
Report				
Log On As Different User				
Close				
MS Access				
Exit				

Open an Existing	Domain					?×
Look jn:	🔁 EDITOR TE	ST	•	두 🗈 😁	-	
History Desktop My Documents	CUSTOMS 1 CUSTOMS DA CUSTOMS DA CUSTOMS IN CUSTOMS IN CD1.dom PFRED.dom pierre.dom SPAIN.dom	dom ITA.dom F02.dom				
My Computer) File <u>n</u> ame: Files of <u>type</u> :	Domaine File		<u>•</u>		<u>O</u> pen Cancel

From the dialog box navigate to and then select a EUROTRACE Domain and click on the 'Open' button.

To access a recently opened domain

Choose the **Domain menu** and then the option called 'Recent'.



Select a recently opened domain from the list.

You can set the length of the list of recently opened files that are displayed in this list to a maximum of eight by using the Tools menu and then the menu option called **'Options'**.

ſ	<u>T</u> ools <u>H</u> elp
I	⊆hange PassWord
4	Check Domain
	Domain Backup/Restore
	Update Domain
	Users Definition
	⊆onsole
	Execute <u>S</u> QL
	Compact
	<u>A</u> dd-Ins ►
	Options

You then use the TAB called 'Recent Files'.

ptions		
eneral Backgroun	d Recent files Import / Export Back Up	
axi. number of Rece	ent Files	3 🚊
hoose Recents Files	you want to Suppress	
Domain	File	1
New Domain	C:\EDITOR TEST\CUSTOMS INF02.Dom	35
CUSTOMS D	C:\EDITOR TEST\CUSTOMS DATA.Dom	
New Domain	C:\New Domain.Dom	
		None

The list length of recent files in the list corresponds to the number in the box at the top right corner of this screen entitled 'Maxi number of recent Files'.

Once you've opened or created a domain you can move around within it.

14.2. To open an new existing ORACLE Domain

An existing ORACLE Domain is a domain which has been created by another user and never opened by the current user.

To open a new existing Oracle domain that has not yet been opened, select "open new existing ORACLE Domain" from the "Domain" menu.

user will have to specify the Driver to use as well as the name of the database (where the dedicated table space is available), the user ID and the password for the connection to the database.

Connection to ora ? 🔀					
ODBC Driver					
Ⅰ					
Oracle server address					
Oracle UserID					
Oracle Password					
ОК	Cancel				

Click the "OK" button to continue. A list of available Oracle domains will be displayed for you to choose from.

To open an existing Oracle domain that has previously been opened by the current user (Eurotrace application), user will just have to select "Open ORACLE domain" from the menu. A list of domains will be opened to choose from.

Open an Existing ORACLE Domain		
Domain	Adress/Oracle UserID	
🔅 PPORA01	SAM@CXT2	
li		
Remove Drop		Dpen Close

Two buttons are available:

Remove Connection: Remove the connection to the selected domain from the list.

Drop Database: Remove the connection to the selected domain from the list and delete all data of the selected domain in Oracle.

14.3. To open an new existing SQL SERVER Domain

To open an existing SQL Server domain that has not yet been opened, select "open new existing SQL Server Domain" from the "Domain" menu.

📝 Eurotrace	
Domain Tools Help	
New	
Open Access Domain	
Open ORACLE Domain	
Open SQL Server Domain	
Open new existing ORACLE domain	
Open new existing SQL Server domain	
Properties	
Report	
Log On As Different User	
Close	
MS Access	
Exit	
Ready	9:33 AM

User will have to provide all the required information about the database (server local or remote, database name or path) and the connection mode (Window authentication or SQL Server security).

Domain Properties	×				
SQL Server Domain					
Driver Microsoft SQL Server Express Edition 2005 - LOCAL					
Database					
User Login User PassWord					
Server					
Windows authentication SQL Server security					
Cancel]				

To open an existing SQL Server domain that has previously been opened by the current user, select "Open SQL server domain" from the menu. A list of domains will be opened to choose from.

Two buttons are available:

Remove Connection: Remove the connection to the selected domain from the list.

Drop Database: Remove the connection to the selected domain from the list and delete all data of the selected domain in SQL Server.

Copen an Existing SQL Server Domain		
Domain	Adress/SQL UserID	
PPTESTO1	@D:\DEV\EUDBMS\TRAINING\PA	
Remove Drop Connection Database		Dpen Close

14.4. Moving around the different parts of a domain

The main EUROTRACE interface is made up of different views of different parts of a domain. Each part of a domain has a coresponding 'TAB' which is used to select the view of that particular part of the domain.

The above is central to understanding how to use the software as each tab has its own associated functionality.

Understand what these different tabs do so you can move around within your domain and access the various different types of functionality which addresses the different parts of your domain.

The initial screen is divided into two sides a left and a right hand side.



On the left side there are three main tabs which allow you to switch between the views of the two types of Datasets (normal and derived datasets), or Classification Plans. We will start our quick tour of the Eurotrace interface by considering each of these three Tabs.

The Dataset Tab

When the Dataset Tab is active, the left side of the window will display a list of datasets, and you will have **seven** tabs on the right that display the definitions of each dataset as well as tabs for the extraction views, error, history and import / export operations.

Definition Tab

A dataset **Definition** contains the structural specification of the dataset.

View Tab

Views are selections of all or part of a dataset defined for exportation.

The Error Tab

The **Error Tab** contains a list of errors that occurred while processing (importing and exporting) data.

History Tab

The History Tab allows you to view and process relocated and deleted data.

Import Operation and Export Operation Tabs
The **Import Operations** and **Export Operations Tabs** contain a list of operations performed on the dataset with information on the results, the date of the operation and how many records were affected.

The Error, History, Import Operation and Export Operation Tabs are described in more detail in **Chapter 15**.

14.5. The Derived Dataset Tab

This tab lists the derived datasets. These are datasets that are wholly or in part, based upon other previously defined datasets. The functionality and right hand side of the screen in the derived dataset tab, are similar to the dataset tab (see above).

🛿 Eurotrace - CCTEST	
<u>D</u> omain <u>L</u> anguage <u>D</u> ataSet <u>T</u> ools <u>H</u> elp	
D 🗃 🗃 🗙 💭 🏐 🏙 🔝 <u>%</u> 🧶	tion Plan
DataSet State	👷 Demition 🖓 Views 👗 Errors 🔐 History 😪 Import Uperation 🚱 Export Uperation
EXPORTTR Large Number	HultiFile : <no label=""></no>
	Period : <no label=""></no>
	🛄 📠 Year : <no label=""></no>

Some features for derived datasets are not necessary for example validation, because the validation can be applied to the original dataset upon which, the derived dataset is based.

So although very similar in form and function you will see some minor differences between datsets and derived datsets.

14.6. The Classification Plan Tab

When the Classification Plan Tab is active, the left side of the window displays a list of dictionaries. The right side displays the User List Tab and Relation Tab.

🔽 Eurotrace - CCTEST	
Domain Language Classification Dictionary Tools Help	
D 🚅 🛯 🗙 🛸 🕎 🐮 🍕 🍇 🕺	
🗇 DataSet 🌗 Derived DataSet 👒 Classification Plan	
Classification State 🔀 User List 💽 Relation	
Secoration Secoration Secoration Secoration Second	State
CTRYCODE:COUNTRY CO 245 Re	

14.7. The User List Tab

The User List Tab lists custom user defined views of dictionaries.

14.8. The Relation Tab

The Relation Tab lists relations between dictionaries defined by the user. 73

14.9. Shortcut menus, drop down menus and buttons

How to Access the Short Cut Menus

Shortcut menus have been implemented for all the different sections of the EUROTRACE interface, they can be accessed by right-clicking on the screen. These menus change dynamically depending on where in the screen you click. Sometimes when you right click and access a menu option a new screen will be displayed. These new screens also usually include further right click short cut menus.

In brief, it is always worth a right click – to see what shortcut menu oprtions are available in all the different parts of any new screen.

Using the right click shortcut menus is the fastest way to get around the different parts of the interface, although as we shall see – there are standard menus and also buttons which could also be used.

A right click shortcut menu looks like this:



All necessary functions are also available through standard Windows type drop down menus at the top of the Eurotrace screen.



Similarly the principle functions also are available in Button form at the top of the screen. Buttons are quicker to use than menus in some circumstances These buttons are arranged on button bars and the button bars are also dynamically allocated by the software so that the buttons that you see are suitable for the particular tasks that are possible for that particular place in the interface.



Why are some menu options or buttons in grey and not selectable? Sometimes this might be the case. There are two reasons why this could happen. The first reason relates to the security of the domain.

Case 1

If you see some functionality that is 'greyed out' or disabled on either the shortcut and dropdown menus or the buttonbars – it is because the user profile allocated to you by the domain database administrator, does not give you permissions to access that particular functionality.

Eurotrace has a very comprehensive approach to database security. It can be adapted by the database administrator. This will be discussed in detail later in Chapter 20 'Management of Security by database administrators'.

Case 2

If you do have a user profile allocated by the database administrator that **does** permit you to have access to a particular type of functionality and that particular functionality is still 'greyed out' and unnaccesible in a menu, it is because the items for the option you are trying to select have not been made yet. You will have to make the necessary items before you can have access to the menu option.

To take a simple example: The delete a dictionary menu option will remain grey and unaccessible until you have created a dictionary that you can then delete.



The menus are therefore context sensitive. Only the possibilities that make sense are available at each stage in the process of creating, managing and using the domain.

The grey and unnaccessible menu options are not a problem with the software!

The database administrator has extensive powers to allocate and deny Eurotrace functionality by allocating each user an appropriate user profile which in turn grants the users the permisions they need.

If you need more functionality than you currently have allocated – discuss this with the database administrator and they can adjust the permissions allocated to you within your personal User Profile.

To conclude this introduction: Different parts of the domain are accessible through the different Tabs on the screen and via right click shortcut menus, drop down 'normal' menus and buttons on button bars. The options that you get are dynamically allocated and are a function of your User Profile permissions and also of what is possible at the location you have reached.

Navigating these different Tabs and Menus is the key to getting around within your domain. There are sometimes many levels of programs within each Tab.

The more different types of object you create – the more menu functionality becomes available.

For example : After you have created your first dataset, then the dataset menu options become active. After you have created your first dictionary, then the dictionary options become available etc.

This completes the quick tour of the different Domain interface Tabs, and menus and completes our first high level overview of the Interface.

What follows is a much more detailed look at all of the functionality available from all of the tabs and their sub menus.

15.Managing Domains

15.1. Creating a New Domain

Either click on the **'Create a New Domain'** button or choose **'New'** from the domain menu.

The screen appears for you to set the domain's general properties.

Before you fill in the Code and Label fields, you should first of all select the languages that your domain will support. This is because these code and label fields are *related* to the languages that are set for the domain.

First you **<u>set</u>** the languages that the domain supports. You then select one of these languages. You then enter the codes and labels for the selected language.

Therefore you should set the domain's languages before you fill in the codes and labels in on the General Properties screen. The languages that you choose for your domain to are set and stored as part of the Domain's structural properties. So click on the Structure Tab – we will discuss the General Properties Tab soon. The first thing to do when creating a new domain is to set the languages for the domain.

Domain Structure Properties

Select the **Structure Tab** and use the **'Available Languages'** check box on the left-hand side to make a choice of label languages for your domain. These languages will be applied to the entire domain.

🖻 Domain Properties		? 🗙
■ Domain Properties General Structure Storage Available Languages ✓ English ✓ Français ✓ Deutsch Italiano Ellinika Nederland Dande	Code Code Label Lib_ Memo Memo_ Hierarchy Hierarch Order Ord ID ID	<u>?</u> ×
Dansk Svenska Sumoï	Bitmap Bmp_	
Access Version		
	ок с	ancel

The three official working languages of the European Union are automatically set by default. To select an extra language, just check the box next to the language.

Tip! Save database file space and processing time by only selecting the languages that you really need. (see 'How EUROTRACE works with languages Chapter 7).

The right hand side of the structure tab lists the naming conventions for the fields in the storage structure of EUROTRACE.

These settings are for database administrators only.

It is highly recommended to keep the default settings.

Code

This is the default field name for the code column in the Dictionary and Relation Tables in the database.

Label

This is the default field name for the Label column in the Dictionary Tables in the database. This has DE for German, FR for French and EN for English added at the end i.e. in the form of Lib_De, Lib_FR and Lib_EN.

Memo

When the 'Memo' field is activated it allows you to add notes to all EUROTRACE objects. Memo field notes can be added in each of the languages supported by the domain (see 'How Eurotrace works with Languages', Chapter 8). This is the default field name for the memo column in the Dictionary Tables in the database.

Hierarchy

This is the default field name for the column, which stores the Dictionary hierarchies in the database.

Order This is the default field name for the column, which orders the data when exporting and structuring the objects within the domain.

ID

Is a unique identifier for the table.

Bitmap

This is the default field name for the dictionary, which stores the views and the User Lists in the database.

Adding or suppressing domain languages and memo fields for an existing domain

If you decide to add languages to your domain at a later stage you can use the Drop down menu called 'Data Language' and the option called 'Add / Suppress language'.

🛃 Eurotrace	
Domain Data language Dal Data language Dal Part English Français Deutsch DataSe New Construction Data Language Dal	aSet Tools Help et ♥ Classification Plan
Ready	18:20

This will display a list of languages to select from.

🖉 English	
Z Français	
Deutsch	
Italiano	
Español	
] Portugės	
] Ellinika	
Nederland	
] Dansk	
] Svenska	
Sumoï	
letzeburg	

To add a new language or activate the memo field capability click in the appropriate box. To suppress a language or the memo field capability remove the appropriate tick in the relevant box by clicking on it.

15.2. General Domain Properties

Select the General Tab.

🖻 Dom	ain Properties	?×
Gener	al Structure Security Storage	
M	Code DOMAIN	-
Label	DOMAIN	-
Memo		_
1		
Langu	^{age} English	
	OKCan	cel

The general properties are the names, labels and memo text entries of the Domain.

You must provide a unique **Name** for the Domain in the field marked **'Code'**

You should also provide a meaningful **Label** for each language that you wish to use in the field marked **`Label'**.

To do this, first select the language of your label from the drop down '**Language list box'.** This sets the field in the database which stores your label and then you type into the Label field box, the label that you wish to be stored. If the **Memo** field was activated in the domain structure Tab (see 'Managing Domains', Chapter 9.1) you can also enter a memo in the memo field.

The information for codes, labels and memos is stored as you type. You don't have to press save or enter – the information is saved automatically as you type it in.

Tip ! Remember that the three working languages of the European Commission – French, German and English are supported by default when you first create the Domain. If when setting the structure of the Domain you enabled additional languages, you can enter further labels, and if activated, memos in these additional languages.

To enter a memo or label in another language, select the new language from the drop down list box – then enter the label in the label field or memo in the memo field, or both (if appropriate) using the language you have selected from the drop down list box.

To add more labels in other supported languages repeat the above by starting with selecting the new language from the list until you have entered labels and memos in all the languages that you wish to apply.

When you have finished defining the labels and memo fields in the different languages that you require, click on the OK button to leave the Domain properties.

You can always change the general properties of the Domain at a later time by selecting **'Properties'** from the right mouse button shortcut menu when you are within the Domain Tab.

TIP! The name you choose for the Domain should be short as well as unique since it will be used as a prefix for all files and tables associated to your Domain.

15.3. Domain Security Properties

The domain properties (Available at the domain creation only) **Security Tab** enables you to set passwords for Classification Plans.

🖻 Domain Properties 🛛 💽 🔀
General Structure Security Storage
Classification Plan Password Protection
Your Password
This ensures that your database cannot be opened in any application without the correct password.
Save PassWord in Structure File
WARNING! if you unselect this option and lose your password, it can NOT be recovered and your data will be inaccessible !
Encrypted Database
An Encripted database ensures your data can not be read using a Text Editor (NotePad), using this option will slow down data access.
OK Cancel

To activate the password protection, click in the box entitled **'Classification Plan Password Protection'** and enter a password in the field.

The Classification Plan password prevents modification of the Classification Plan structure without the appropriate password.

After the domain parameters have been set, click on the 'OK' button and you will be prompted to save your domain.

Enter a file name for your domain then navigate to the directory in which you wish to save and press the 'OK' button to store the domain. The directory where you store the EUROTRACE Domain will also be the location where EUROTRACE will store all associated files.

Once you have created a new domain you can create a new Classification Plan within the domain.

N.B. When you click in the classification plan password protection box to activate the password functionality you have the option to save the password in the Structure file.

IMPORTANT ! If you save the password in the structure file the password is stored in the domains' .PLC file.

📅 Domain Propertie	s ? 🗙				
General Structure S	ecurity				
Classification Plan	Password Protection				
Your Password me in the file so it can be recovered					
This ensures that your database cannot be opened in any application without the correct password.					
🔽 Save PassWord in	n Structure File				
WARNING! if you uns password, it can NOT inaccessible ! Im Encrypted Databas An Encripted databas using a Text Editor (No down data access.	elect this option and lose your be recovered and your data will be se e ensures your data can not be read otePad), using this option will slow				
	OK Cancel				
📅 Domain Propertie:	s ? 🗙				
E Domain Propertie General Structure S	s ? X				
General Structure Structure Classification Plan	s ? 🗙 ecurity Password Protection				
E Domain Propertie: General Structure S ✓ Classification Plan Your Password	s ? X ecurity Password Protection me in the file so it can be recovered				
Domain Properties General Structure S Classification Plan Your Password This ensures that your application without the	s ? X ecurity Password Protection me in the file so it can be recovered database cannot be opened in any correct password.				
Domain Properties General Structure S Classification Plan Your Password This ensures that your application without the Save PassWord in	s ? X ecurity Password Protection me in the file so it can be recovered database cannot be opened in any correct password.				
Domain Properties General Structure S Classification Plan Your Password This ensures that your application without the Save PassWord in WARNING! if you unsupassword, it can NOT inaccessible ! Encrypted Database using a Text Editor (Nor down data access.	s ecurity Password Protection me in the file so it can be recovered database cannot be opened in any correct password. Structure File elect this option and lose your be recovered and your data will be se e ensures your data can not be read otePad), using this option will slow				

This is good for password recovery and ease of use of the domain. The password can be recovered if you forget it.

If you activate the classification plan password protection box and provide a password but choose not to save the password in the classification plan you have to be really sure that you will never forget the password.

If you do forget your password you will not be able to recover the information.



Similarly, should you decide to use encrypted password protection, you must be sure that you will not forget the password in the future.

If a member of staff leaves an organisation, make sure you know their passwords, otherwise you might not be able to access their domains and they could contain substantial amounts of valid data.

For these reasons it would be wise to save the password as part of the classification plan since this will provide a reasonable level of security.

Choosing to use passwords and not saving them in the classification plan (.PLC file) or saving them in the classification plan, but using the encrypted option, should only be used by the brave and the certain! Since these options provide ultimate security, but also, no chance of password recovery.

N.B Passwords are limited to a 14 digit maximum.

N.B. When you click in the classification plan password protection box to activate the password functionality you have the option to save the password in the Structure file.

IMPORTANT ! If you save the password in the structure file the password is stored in the domains' .PLC file.

15.3.1.1.1.

15.3.1.1.2.

15.4. Domain Storage Properties

The domain property **Storage Tab** enables you to set parameters linked to the DBMS system (MS ACCESS, ORACLE or SQL Server).

neral Structure	Security Storage			
Microsoft Acce SQL Server Da ORACLE Datat	ss Database tabase pase			
Driver Database Jser Login Jser PassWord Jser PassWord Database (DBG Access, and a l	le ODBC Driver for OF) to initialise Database Jser Login with Passw	ACLE, Server vord. (This	Test	
User must have	auministrative permis		Parameters	5
			l Can	col l
main Proner	ties			2
o <mark>main Proper</mark> Deral Structure	t ies Security Storage			?
errain Proper eral Structure Microsoft Acce SQL Server Da ORACLE Datal Driver Native Cli	ties Security Storage ss Database tabase pase ent 9.0 - SQL Server F	Express - LOCA	L	
emain Proper reral Structure ' Microsoft Accee ' <u>ISQL Server Da</u> ' ORACLE Datal Driver Native Cli	ties Security Storage ss Database tabase pase ent 3.0 - SQL Server B	Express - LOCA	L	
main Proper neral Structure SQL Server Da ORACLE Datal Driver Native Cli Database	t <mark>ies</mark> Security Storage ss Database tabase pase ent 9.0 - SQL Server B	Express - LOCA		
o <mark>main Proper</mark> neral Structure Microsoft Acce SQL Server Da ORACLE Datal Driver Native Cli Database Jser Login Jser PassWord	ties Security Storage ss Database tabase pase ent 9.0 - SQL Server B	Express - LOCA		?
omain Proper heral Structure Microsoft Accee SQL Server Da ORACLE Datal Driver Native Cir Database User Login User PassWord Server	ties Security Storage ss Database tabase pase ent 9.0 - SQL Server B	Express - LOCA		
ormain Proper neral Structure Sigle Server Da ORACLE Datal Driver Native Cli Database User Login User PassWord Server © Windows © SQL Server	ties Security Storage ss Database tabase asse ent S.O SQL Server B ent s.O SQL Server B authentication er security	Express - LOCA	L	

🖻 Domain Properties 🔹 🤶 🗙
General Structure Security Storage
 Microsoft Access Database SQL Server Database ORACLE Database
Driver Microsoft 0DBC for Oracle
Database
User Login
User PassWord
You must provide ODBC Driver for ORACLE, Database (DBQ) to initialise Database Server Access, and a User Login with Password. (This User must have administrative permission)
OK. Cancel

This tab enables you to select the DBMS and to set the parameters.

By default, **MS ACCESS** is selected, in this case, you don't need to enter anything

The second option is **SQL Server** Database.

Selecting this option will enable you to select a **Driver** (to be used for the ODBC connection)

The Database is to be selected by using the DB Browse button.

You have to select the database, using the Select Path navigation dialog.

🖻 Select a path 🛛 🛛 🔀
= c: -
C:\ Program Files Common Files Microsoft Shared DA0
Cancel Select

The last option is to specify the **ORACLE** Database parameters.

Under this dialog, you will have to select the ODBC Driver for Oracle

Then, the database and the user information will have to be filled for the connection

15.5. Domain Report

In the **'Domain'** menu, select the **'Report'** sub-menu.



The 'Automatic Documentation Generator' window appears.

Occumentation Type	Default		×	<< Details
.anguage	English	•		
Selection				î
Domain Parameters	\$_)	🔽 DataSet		
🔽 Languages		🔽 dimensions		
Structure		🔽 Dimensi	ons	
		🔽 Groups		
Classification Plan		Validation F	lules	
Only used dictiona	ries 💌	☐ Views		
🔽 Dictionaries Stri	ucture	Monitoring		
🔲 Extra Inform	ation			
Dictionaries cod	des	🔽 Derived DataSet	è.	
F View descrip	otions	🔽 Derived Da	taSet Structure	
🔲 User Lists		🔽 Monitoring		
F Relations				
🗖 Insert Codes in	Annexes			

This window is used to select the information you want to add in the report.

In this version of Eurotrace, only the **'Default'** type of report and the **'English'** language are developped.

The '<< **Details**' or '>> **Details**' button hides or shows the generation parameters.

Description of the generation parameters:

'Domain Parameters': general information on the domain. Values:

'Languages': languages used in Eurotrace and language of the interface **'Structure'**: structure of the domain

'Classification Plan': information on the classification plan of the domain. Values:

Type of Dictionaries. Values:

Only selected dictionaries = add only the selected dictionaries in the report

Only used dictionaries = add used dictionaries in the report

All = add all dictionaries in the report

'Dictionaries Structure': structure of the dictionaries. Values:

'Extra Information': add extra information in the report

'Dictionaries codes': codes of the dictionaries. Values:

'View descriptions': add description of the views in the report

'User Lists': user lists of the dictionaries

'Relation': relation between dictionaries

'Insert Codes in Annexes': if **'Dictionaries Codes'** is selected, this add the codes in annexes, instead of in the document

'DataSet': datasets of the domain. Values:

'dimensions': dimensions of the datasets. Values:

'Dimensions': add a description of the datasets' dimensions in the report

'Groups': add a description of the datasets' groups in the report

'Validation Rules': datasets' validation rules

'Views': datasets' views

'Monitoring': datasets' monitoring information

'Derived DataSet': derived datasets of the domain. Values:

'Derived DataSet Structure': derived datasets' structure

'Monitoring': derived datasets' monitoring information

 Save As
 Image: Save jn:

 Save jn:
 Image: domain

 Image: Backup_dompsal

 Image: Backup_dompsal

Click on the **'Generate'** button to create the report.

Select the name and directory of the report and click the 'Save' button.

At the end of the generation, click on the **'Close'** button to return to the domain management.

15.6. Domain Upgrade

In the **'Tools'** menu, select the **'Update Domain'** sub-menu. This function is only useful if users have domains created with the older version of Eurotrace MS ACCESS DBMS (version 1.4)

Change PassWord Check Domain
Domain Backup/Restore
Update Domain
Users Definition
Console
Execute SQL
Compact
Add-Ins 🕨
Options

The 'Domain Update' window appears.

Update doma	in	×		
Step 1 : Se	lect the domain to t	ipgrade		
Domain Path :	D:\domain\dompsa1.dom			Browse
		Back	Next	

Enter the full path and name of the domain you want to upgrade in the **'Domain Path'** textbox, or click on **'Browse...'**.

)pen an Existing	Domain			<u>?</u> ×
Look in:	🔁 domain		- 🗧 🖆 📰 -	
History Desktop My Computer	Log dompsal.do	psal m	~~	
My Network P	File name:	dompsa1.dom		<u>O</u> pen
	Files of type:	Domaine File	X	Cancel
		Dpen as read-only		

Select a Domain and click on **'Open'** to return to the **'Update Domain'** form. 87 Click **'Next'** to perform the operation.

If a domain is open, the application will ask you to close it to continue.



Click **'Yes'** to Continue. If a domain is already updated, Eurotrace show this message and stop the process:

Update Domain	ъ
The Domain is already upgraded	
ОК	

If the domain is not updated, the process continues.

🗲 Update do	main	×
	Status	
	Copying file :D:\domain\dompsa1.bki Copying file :D:\domain\dompsa1.dom Copying file :D:\domain\dompsa1.log Copying file :D:\domain\dompsa1.mac Copying file :D:\domain\dompsa1.dat1.dta Copying file :D:\domain\dompsa1_dat1.dta Copying file :D:\domain\dompsa1_dat2.dta Copying file :D:\domain\dompsa1_Det1.dta	*
Upgrading tat	oles	
	Upgrading table Dictionary Upgrading table Dataset Upgrading table Structure Updrading Dataset D:\domain\dompsa1_dat1.dta Updrading Dataset D:\domain\dompsa1_dat2.dta	
Domain succ	esfully upgraded	
	Back	evi Dose

Click on the 'Close' button to return to the domain management.

Click on the **'Back'** button to upgrade another domain.

15.7. Check Domain

In the **'Tools'** menu, select the **'Check Domain'** sub-menu.



The 'Check Domain' window appears.

🛃 Check domaine		
Check the domain : Croa	atie	
Relation table missing. Database :	\Eurotrace\tests\Croatie.plc, Table : Ca2-CGeo-CNum3	
1	2	
	Cancel	

Click on 'Check' to run the procedure.

If an error is detected, it will show as in the above window. An email will also be send to the email address specified for support of the domain (see below maintenance section).

Options
General Background Recent Files Import / Export Back Up
Interface language English
Automatic Refresh
Number of Records Displayed 800 Timer Interval (ms) 20
Maintenance Email support@cec.eu.int
OK Cancel

N.B.: the process of sending mail may vary depending on the local configuration settings (security level and type of mail server)

16.Managing Classification Plans and Dictionaries

16.1. What is a classification plan?

After you create a new domain or load a previously created domain, a screen like this is shown.

🛃 Eurotrace							_	
Domain Data lan	nguage <u>D</u> ataSet <u>T</u> ools <u>H</u> e	lp						
	< 🗋 🍯 🏙 🕅 🖋	& №						
🗇 DataSet 🙀	Derived DataSet	sification Plan						
DataSet	State	🖽 Definition	🕼 🖓 Views	🗙 Errors 🕻	🦹 History 🛛 🔇	🔒 Import Operation	🛛 🚱 Export Opera	ation
Ready							18:	16 //

On the left hand side of the screen there are three Tabs: Dataset, Derived Dataset and the Classification Plan Tab.

The **<u>Dataset Tabs</u>** refer to the definition and storage of <u>*datasets*</u> (normal and derived).

The **<u>Classification Plan Tab</u>** is the place where <u>*dictionaries*</u> are defined and stored.

These dictionaries are associated to the structure of the dataset's dimensions. When data are imported or exported to, or from these datasets, the individual records can be automatically validated against the contents of the dictionaries, in order to ensure the quality of the data.

Clicking on the Classification Plan tab displays this screen.

🛃 Eurotrace			
Domain Language Classification	<u>D</u> ictionary <u>T</u> ools	s <u>H</u> elp	
D 🖻 🖀 🗙 👒 🖾	9 🐮 🐟 🍇	월 <u>₹</u> ?	
🗇 DataSet 🕞 🔂 Derived DataS	et 👒 Classification	on Plan	
Classification	State	🔮 User List 🚹 📴 Relation	
Weriod :	Contains : 1 d	User List State	[
Period: <no label=""></no>	29 Records		
🔰 💓 Unknown :	Empty		
		1 <u>P</u>	
Ready			16:16

The left hand side of the screen displays the dictionaries that belong to the classification plan. The right hand side of the screen displays two tabs called 'User List' and 'Relation'.

The <u>User List Tab</u> lists the 'user lists' for each selected dictionary. These are user lists of selected dictionary codes (see '**Managing User Lists'** later on in this chapter).

The **<u>Relation Tab</u>** lists the 'relations' for each selected dictionary. These are transcodification definitions, which can transcode codes in different dictionaries (see **'Managing Relations'** later on in this chapter).

If you select the Classification Plan Tab, you will notice that a dictionary called **Period** is automatically generated in the classification plan, when you create a new domain. This is because the Period dictionary is mandatory for all classification plans. The **Period Dictionary** is a special dictionary that lets you associate data with a specific time period i.e. monthly, quarterly, annually etc.

You will want to create other dictionaries to add to the period dictionary.

16.2. Creating a New Classification and Dictionary

General Classification Properties

To create a new classification, click on the right mouse button in the left hand part of the classification window and select 'New'.



You will see the following screen to set the properties of your classification

🔚 Classific	ation	Properties				<u>?×</u>
General						
Ŵ	Code	New Class	ification			
Label						
Memo						
Language	ļ	English				•
				OK	Ca	incel

General Dictionary Properties

To create a new dictionary, click on the right mouse button in the left hand part of the dictionary window and select 'New'.

🛃 Eurotrace					
Domain Language	Classification Die	ctionary Tools	Help		
D 🖻 😭 🗙	۴ 😒 🍋	1 🐟 🍓	è №?		
🗇 DataSet 🚮 I	Derived DataSet 📑	🖗 Classificatio	n Plan		
Classification		State	🔮 User List	🛃 Relation	
Seriod : Period: <no Unknown :</no 	New Properties Refresh State Edit Labels Hierarchie Delete	Contains : 1 d ecords ,	User List	State	
Ready	Import Export Build Hierarchy		<u> </u>		16:18

You will see the following window to set the properties of your dictionary.

📅 Dictionary Properties	<u>?×</u>
General Structure OwnerShip Fields	
Code New Dictionary	_
Label	
Memo	
Language English	
OK Car	ncel

The 'Memo' field will only be active if the 'Memo' field was selected when the domain was created (see Domain Properties Structure Tab).

Similarly the choice of label Language will be restricted to those chosen when the Domain was created.

📅 Dictionary Properties
General Structure OwnerShip Fields
Code New Dictionary
Label
Memo
Language English
English Français Deutsch

TIP! You can change the general dictionary properties and ownership at any time by selecting the dictionary from the dictionary window and clicking on the **'Object Properties'** button and right clicking and then selecting **'Properties'** from the menu.

TIP! As with domain properties it is recommended that you keep the code and label text as short and as descriptive as possible.

You can also move your dictionary to another classification with a simple drag and drop.

🖬 Dictionary Properties 🔹 🤶 🗙
General Structure OwnerShip Fields
Dictionary Code Structure Type Text Size 1
Classification Unknown
Shared UserList Maximum Number 70 User List 💌
Input Mask 🛛 💌
OK Cancel

The Dictionary Code Structure Type can be:

16.3. Dictionary Properties Structure Tab

Text Type is the default type. The size can be up to 255 alphanumeric characters.

Integer Type can be used to store the Dictionary Codes as numbers (sometimes it saves file space to do this). This type stores numbers from -32,768 to 32,767 (no fractions).

Long Integer Type also stores the Dictionary Codes as numbers. This type stores numbers from - 2,147,483,648 to 2,147,483,648 (no fractions)

For all the different types, the '**Size'** field informs you of the number of bytes used for each code that are stored in the database.

For the Integer and Long Integer Types the **`String Size'** field indicates the number of digits.

The definitions of the dictionary code, structure, type, size and input mask are important, because later on when importing data you might find that data are refused because your dictionaries were not established properly.

16.4. Dictionary Properties Ownership and Fields Tabs

The ownership properties can be set from the Dictionary Properties Ownership Tab.

N.B Remember that all users with a 'higher' user profile and set of permissions/access rights can take ownership of objects that you have created. Those with Admin status profiles can take ownership of all objects in the database.

📅 Dictionary Properties	<u>? ×</u>
General Structure OwnerShip Field	s]
Object Owner 🛛 💁 Admin	
	Take OwnerShip
Visibility	
Public : All users, according to the this object and modify its definition	eir rights, can use n
 Read-Only : All users, according t use this object but they can't mod 	o their rights, can lify its definition
 Private : Definition and Datas car by another User 	n not be accessed
	OK Cancel

Customs Fields for each dictionary can be set from the Dictionary Properties Fields Tab.

11 D	ictionary Pro	perties			?	×
Ger	neral Structure	e OwnerShip	Field	s		
	·					
	Name	Туре	Size	Contains	data	
					_	
		Now Fig	Ja			
		Delete i	Field			
				1		-
				OK	Cancel	

16.5. Populating Dictionaries

Once you have created a new dictionary, and defined its properties and structure, you will need to fill it with codes and labels. Select a Dictionary and from the shortcut menu choose 'Hierarchy'.

🛃 Eurotrace	
Domain Language Classification Dictionary Tool	s Help
	월 №
🗇 DataSet 🖶 Derived DataSet 🛛 📎 Classificati	on Plan
Classification State	🔮 User List 🚹 Relation
Statistics : <no label=""> Contains :</no>	User List State
Contract: Type of Contract (CL 13 Record	
CPC:Customs F New rc	
CPCExt:Extenc Properties rc	
Flow: Trade Flo Refresh State	
StradeType:Tra Edit Labels	
Wunknown : Hierarchie :	
Office:Customs Delete rc	
testDictionary:< Import	
Export	
Build Hierarchy	J
Ready	16:27

Here you can fill your dictionary, by right-clicking in the window and selecting from the following menu options:

Hierarchic Editor		? _ 🗆 🗙 No Records
	Insert Delete Del Ghange Code Ghange Label Sort On ► Clear	
	Find Ctrl+F Find Next F3 Options	
Language English Show Paddle	Cance	

Insert prompts you to add a dictionary code.

Delete lets you delete a single selected dictionary code.

Change Code lets you edit a selected dictionary code. Right click on the code first to select it.

Change Label lets you enter or rename the label of a selected dictionary code. Right click on the code first to select it.

Memo lets you add a memo to a selected dictionary code.

Sort on code lets you sort the list in accordance with the dictionary codes.

Sort on label lets you sort the list in accordance with the labels.

Clear – Deletes <u>all</u> codes and labels. N.B. if you want to delete just one code and not all of them you should select the code you want to delete and use the menu option 'delete'.

Find/Find Next: Enable users to find codes on a dictionary which has been organised into Hierarchy. **Options:** Allow the definition of Hierarchie Properties

16.6. Editing a Dictionary's Labels and Memos

Dictionaries are composed of **Codes** that can have labels and memos assigned in different languages. Existing code labels and memos can be edited at any time.

🛃 Eurotrace				_ 🗆 🗡
Domain Language Cla	assification Dictionary	Tools	Help	
D 🖻 🖻 🗙 👒	🔊 🖉 🐮 🔌	. 🔩 🎉	₩?	
🗇 DataSet 🛱 Deri	ved DataSet 🛛 📎 Cla:	ssification	n Plan	
Classification	State		🦉 User List 🎼	Relation
Statistics : <no labe<="" td=""><td>el> Contair</td><td>ns :</td><td>User List</td><td>State</td></no>	el> Contair	ns :	User List	State
Contract uppe CPC: Customs f CPC: Automs f Flow: Trade Tipe: Trade Type: Tra Unknown : Office: Customs testDictionary:	New Properties Refresh State Edit Labels Hierarchie Delete Import Export			
	baild micrarchy	<u> </u>		16:28

Select the dictionary you wish to edit and from the shortcut menu select **'Edit labels'**. If the dictionary has already been populated with codes and labels, the labels and memos can then be edited by typing the new text into the fields next to each code.

Code label 1 here This is the label for code two This is the label for the third code	Code Label	Code	16.
2 This is the label for code two 3 This is the label for the third code	Code label 1 here	1	
3 This is the label for the third code	2 This is the label for code two	2	
	3 This is the label for the third code	3	

You can also use the 'Edit Dictionary Labels' Button 🗵

You may also select the different languages from the drop down list.

16.7. Adding Codes to a Dictionary

Use the Hierarchy option on the shortcut menu, and then click with the right mouse button again to get the shortcut menu shown below.

Hierarchic Editor New Dictionary		1	? _ 🗆 🗙 Records	Use the right-click menu 'Insert" option and you will see the following screen.
Language English	Insert Delete Del Change Code Change Label Sort On ↓ Clear Find Ctrl+F Find Next F3 Options	Cancel	OK	New Code X Enter your new Code (Text 1 Digits) 1 OK Cancel

The size of the code that you type here must be smaller than or equal to the size that is stated on the screen. This is the size that you specified when you set the structural properties of the dictionary when you first created it (see Setting the Structural Properties of a Dictionary above).

You type the new code you want to add and then click on the 'OK' button. The new code will appear in the dictionary window and you can edit the label then right-clicking on the code and selecting the **'Change Label'** option.

The language of the labels can be changed by selecting a language from the drop down language box.

Type the new label and press the return key to enter the label.

When you have finished working with your dictionary click the 'OK' button at the bottom of the screen.

Alternatively use the method described above in 'Editing a Dictionary's Labels and Memos'.

16.8. Importing Codes into a Dictionary from a File

'Import' lets you populate the Dictionary automatically with codes that are listed as records in a file such as an existing Access database table. There is also a button to insert files into dictionaries, which looks like this: Import menu option and the button both call the **Dictionary Import Wizard**.



This wizard guides you through a straightforward file importation process in a series of logical steps.

Step 1

If you select the Dictionary Import Wizard you must navigate to where your file is and select the source file.

You select the source from the drop down list. The contents of the selected file are then listed in the window.

				L Click to import via Inti	
Operation	Period	Year	Dic 1	NewValue	
11	Ь	1980	3	5	
11	l c	1	3	5	
11	l d	1980	3	5	
11	e	1980	3	5	
11	l f	1980	3	5	
11	g	1980	3	5	
11	z	1980	3	5	

Click on 'Next'.

Step 2

To make the relationship between the dictionary and the file you are importing, right click on a code in the fieldname column that is the code and select the menu option '**Link'**.

ield Name	Linked	Field Expression/Constant	
Code	UnLinked		
) Label English	UnLinked		
🛛 Label Français	UnLinked		
Label Deutsch	UnLinked		
Destruction Flag	UnLinked		

Now choose a code from the file you are importing and click $\mathbf{OK'}$ to make the link.

🛷 Select a Field		
Code	Order	
🗇 Operation	43 ²	07 3
🖏 CodeErreur		
🔄 Period		
🕉 Year		
Dic 1		
SewValue		
	Clear	

If your import file is not structured correctly you can use the expression option to make adjustments using MS Access SQL language.



Step 3

Then click on the '**Next'** Button and the wizard will check for errors and display a summary of any problems encountered. If you have problems use the '**Back'** button to return to the previous screen to correct them.

🕼 Importation Wizard			? 🛛
Step 3 : Preview your Conversion	Scan	NBFirst	•
Code Label English 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3			
No Errors Detected	Cancel << B	ack	Import

Click 'Next' to continue.

Step 4

Choose your importation options.

💐 Importing Data in Dictionary Country : <no< th=""><th>o Label> ?X</th></no<>	o Label> ?X
Step 4 : Choose Your Importation	n Options
Automatic Treatment (you will be prompted during Imp Always Accept New Records Always Accept Lindated Records	portation) Clear Relation Table Before Importing Delete All Becords Having Null Imported Values
Always Accept Deleted Records	Compact Classification Plan After Importation
C:\ALBANIA\Ballkan_DicError.mdb	
Ceep Relation Code Errors for further management w	ith Relation Editor
For Datasets For Views For UserLists	
	Cancel << Back Next >> Import

The top half of the screen displays various importation options which will be greyed out and unavailable until you click in the top left box labelled

`Automatic

Treatment'. When you do this they become available.

Make the selections you require then move to the Error management section in the lower half of the screen.

The box displays the **Importation Error Database Path**. This path determines where the importation error files will be written to. If you want to change the path make use of the `**Change'** button.

🗱 Importing Data in Dictionary Country : <no label=""></no>	? 🔀
Importation	
Start Importation	
Initialisation ReStructuring	
Check Codes CDUNTRY DOUBLE RECORD CHECK : OK Country Null Check : OK Associating Previous Values Comparing Previous Values Comparing Values : Done Cleaning Values : Done Cleaning Data APPENDING NEW DATA	
Review : IDENTICAL RECORD(S) : 150 UPDATED RECORD(S) : 57 NEW RECORD(S) : 41	
Updating Classification Plan : Done	
IMPORTATION TIME : 00:00:02	
End Importation	
	Close

on Then click the 'Import' button to populate the dictionary. You will see a list of status messages and progress message on the screen as the Import process progresses.

16.9. Importing Codes Into a Dictionary From the Web

You can import codes into a dictionary that is stored in a file on a web page.

IC:\DOCEXAMPLE\ET TEST\	Change
Default Exportation Path	
C:\DOC EXAMPLE\ET TEST\	Change
C Question if the file to export exist	
 Question if the file to export exist Don't replace the existing file Replace the existing file 	

Enter the URL web address into the default URL path box. This can be found under the 'Tools' Menu 'Options' sub Menu, 'Import/Export' Tab. The box is labelled 'Import URL for data dictionaries'.

It is box at the bottom of the image on the left.

Operation	Period	Year	Dic 1	NewValue
11	Ь	1980	3	5
11	C		3	5
11	d	1980	3	5
11	e	1980	3	5
11	f	1980	3	5
11	g	1980	3	5
11	z	1980	3	5

Repeat the process described above, but at the Step 1 Screen, below, click in the small check box labelled 'Click to import via the Internet' at the top right hand corner of the screen and then click on the Select source button. The web page listed in the 'Tools' Menu, 'Options' menu option 'Import/export' Tab default Import URL for data dictionaries path will display. Click on the file you want to load. The system works with .ZIP, .TXT and .MDB format files. When you click on the file it is downloaded to your hard drive from the URL.



If the file is a **.zip** format file the WinZip program will be invoked if it is installed on your computer to unzip the file.

If the file format is an **.mdb** file, this will be recognised and you will be prompted to select the table that contains the dictionary.

If the format of the file is a **.txt** file the file will be opened.

In all cases you may wish to change the format of the file from the bottom drop down list, before continuing as guided by the import wizard.

<u>n</u>	ID and a CA	Tender	00ada	landa DI I	Uierere
-	1 400	45	000000	52	
	2 M01	01	01	01	0000
30	3 M02	02	02	02	0001
5	4 M03	03	03	03	0002
8	5 M04	04	04	04	0010
))	6 M05	05	05	05	0011
	7 M06	06	06	06	0012
	8 M07	07	07	07	0100
	9 M08	08	08	08	0101
	10 M09	09	09	09	0102
-0	11 M10	10	10	10	0110
\$	12 M11	11	11	11	0111
8	13 M12	12	12	12	0112
	14 Q01	21	21	21	000
-	15 Q02	22	22	22	001
	16 Q03	23	23	23	010
1	17 Q04	24	24	24	011
	18 S01	31	31	31	00
	Aclose	loo	100	loo	

The codes in the dictionaries are organised in a tree similar to the Windows Explorer tree.

There are different ways to change the organisation of the codes within the tree.

Manual Organisation



The easiest way is to just drag and drop the codes from one location to another. Another way is to use the 'paddle'. Click on the **'Show Paddle'** button and use the arrows to move the codes.

Sort Codes and Labels

🗘 AA : SORT			
AD : ANDORRE AD : EMIRATS ARABES UNIS AE : EMIRATS ARABES UNIS AT : AUTRICHE AX : AVITAIL.PAV.MAROCAIN	Insert Delete Change Code Change Labe	:	
📁 GA : GABON 📁 ZW : ZIMBABWE	Sort On Clear	,	Code Label
AF: AFGHANISTAN AG: ANTIGUA ET BARBUDA AL: ALBANIE	Find Find Next	Ctrl+F F3	2
AM: ADMENIE AN: ANTILLES NEERLANDAISES AO: ANGOLA AR: ARGENTINE ALL'ALIETRALIE			

From the Hierarchy window (see above), you can sort the codes and the labels one level at a time. You must select an upper level code from the list and then choose 'Sort on Code' or 'Sort on Label' from the shortcut menu. All the codes under that level will be sorted.

The sort by label and sort by codes functions work for sub levels of grouped codes

Automatic Organisation



To organise the dictionary codes in a hierarchical way based upon the codes structures use the automatic method. From the shortcut 'Build menu choose Hierarchy', use the or **`Build** Automatic hierarchy Using 鵽 **Codification'** button from the toolbar.

Setting Hierarchy Properties

To set these properties, Right click on the dictionary select the hierarchy menu option, then click on the 'Options' button. Here you can set the number of digits and level length for the Codes.

Hierarchic Editor		?_0
Contract		4 Recor
CAF: CAF DPU: Départ usine DPU: FOB FOB: FOB	ncannu	
	Hierachie Properties	×
	Digit Number 36 🗮 Level	÷
	Items per Level : 46 656	
angage Français	Show Paddle Options	Cancel OK

TIP! The 'Import File', and 'Build Hierarchy' commands are all available from the Classification Plan window by right clicking on a dictionary. It is recommended to use this approach for medium to large size dictionaries.

16.11. Managing User Lists

What is a user list?

Each user list stores a selection of an associated dictionary's codes. It is a therefore a user defined list of dictionary codes (not a list of people using the domain).

When are user lists used?

Classification Plan user lists are used when you create 'data set views'. They enable you to set up specific views of datasets.

Therefore prior to creating dataset views, you will find it useful to establish appropriate 'user lists' of dictionary codes that are appropriate to the views that you wish to create.

For example:

You might have a dictionary of European Countries.

You might want to view data from your dataset that only relate to European Union countries.

You should set up an appropriate user list of the European countries dictionary that only includes the codes for the European Union Member States.

Then when you set up a data set view, to look at the data in your dataset, you can use this user list of dictionary codes to help establish the correct view of the data from the dataset.

Classification Plan user lists are therefore sub selections of codes from a dictionary, that enable you to establish the scope of data that are views from a dataset when you establish a dataset view. They filter and constrain data from datasets.

EUROTRACE classification plan user lists, (of dictionary codes) are an important concept to understand, since they are used within dataset views to enable you to see the data in ways that you want.

16.12. Create a new User List

Click on the **'User list'** Tab in the right hand side of the Classification Plan Screen. Right click in the user list window space and select **'New'** from the shortcut menu.

User List Prop	oerties	?)
General Owner	rShip	
Code	New User List	
Label		
Memo		
Language	Francais	-
Language	Français	

You must provide a unique code for the user list.

You should provide a meaningful label for each language that you wish to use.

To do this first select the language of your label from the drop down `**Language list box'** This sets the field in the database which stores your label and then you type the label that you wish to be stored, into the label field box.

If the memo field was activated when you created the Domain you can also enter a Memo in the memo field. Both labels and memo fields are saved automatically as you type.

Tip ! Remember that the three working languages of the European Commission – French, German and English are supported by default when you first create the Domain. If when creating the domain you enabled additional languages, you can enter further labels, and if activated, memos in these additional languages at this point. To enter a memo or label in another language select the new language from the drop down list box – enter the label, or memo, or both (if appropriate) in the language you have selected and repeat until you have entered labels and memos in all the languages that you wish. When you have finished defining the labels and memo fields in the different languages that you require, click on the OK button to leave the user list properties.

You can always change the properties of the user list at a later time by selecting **'Properties'** from the shortcut menu.



The definition of the user list can be set by selecting the menu option **'Definition'** from the short cut menu. After changing the definition or properties of the user list you should 'refresh' the list by using the **'Refresh State'** shortcut menu option.

To copy a user list use the **'Copy'** shortcut menu option. Each copy must have a unique code field.

To delete a user list use the **'Delete'** shortcut menu option.
17.Managing Relations 17.1.What is a Relation ?

A relation is a definition that is used to transcode one dictionary's contents for another dictionary's contents. It works in principle like a relational database 'look up' table.

In the example below there are two dictionaries A and B.

Each has three codes and each code has an associated label.

Dictionary A	
Code 1A	Label 1A
Code 2A	Label 2A
Code 3A	Label 3A

Dictionary B	
Code 1B	Label 1B
Code 2B	Label 2B
Code 3B	Label 3B

Using a Eurotrace 'Relation' you can link and associate the two dictionaries.

Dictionary	Dictionary
А	В
Code 1A	Code 1B
Code 2A	Code 2B
Code 3A	Code 3B

The system can therefore substitute the codes for Dictionary B in place of the codes for Dictionary A.

17.1.1.1.1.

17.2. Creating a New Relation

Click on the '**Relation'** Tab in the right hand side of the Classification Plan Screen.



Right click in the Relation window space and select **'New'** from the shortcut menu.

The following screen appears.



The first thing to do is select

the **Relations Tab** and assign the dictionary that you will use.

The Relations Tab

The tab looks like this:



Right click in the white space and select 'new' from the shortcut menu to create a new relation.

A dictionary window appears listing your range of dictionaries established for the domain. Select the dictionary you want and click on the OK button.



Next you specify the definition of the relation using the definitions Tab.

The Definitions Tab

The definition Tab screen looks like this:

	Ę	i Relatio	on Propert	ties				? 🗙
1		General	Definitions	Relations	Storage	OwnerShip	Fields	
		Base on						

The 'Base on' box displays the dictionary on which the relation is based.

The 'Label' box displays a label name for the relation. When you enter this label – the name has to be unique.

A radio field select box function has three choices 'Transcodifcation',

'Constraint', and Formula. The Formula option is at the bottom left hand corner of the screen. You must select one of these options.

Use **'Transcodification'** when you are using the relation to transcode between **only two** dictionaries. I.e.

Dictionary A	
Code 1A	Label 1A
Code 2A	Label 2A
Code 3A	Label 3A

Dictionary B	
Code 1B	Label 1B
Code 2B	Label 2B
Code 3B	Label 3B

Dictionary	Dictionary
А	В
Code 1A	Code 1B
Code 2A	Code 2B
Code 3A	Code 3B

Use **'Constraint'** when you have <u>more than two</u> dictionaries to transcode between. When you use this option, you can have many dictionaries transcoded if necessary. In theory the number of dictionaries you could transcode is unlimited. In practise your practical needs will probably be exceeded before the system resources are overloaded.

Dictionary	Dictionary	Dictionary	Dictionary
А	В	С	D
Code 1A	Code 1B	Code 1C	Code 1D
Code 2A	Code 2B	Code 2C	Code 2D
Code 3A	Code 3B	Code 3C	Code 3D

For both the Constraint and Transcodification options, two check boxes exist to provide details about the nature of the relation.

One states 'all of the codes of this dictionary must have a translation' and the other states 'some codes of this dictionary could have more than one translation'. You should click in the box if the statement is true and you may have both boxes selected or unselected if required.

The top check box determines whether the relationship between the dictionary and relation codes is obligatory.

The bottom check box determines whether the relationship is 'one to many'.

Use **'Formula'** when you want to transcode a dictionary's codes using a formula. For example ignore the last two letters of a four-letter code.

Dictionary A		Becomes	
Code AFBB	Label 1A	Code AF	Label 1A
Code AFGH	Label 2A	Code AF	Label 2A
Code BLWK	Label 3A	Code BL	Label 3A

If you click on the Formula check box at the bottom left hand corner of the Definitions tab – the Storage and ownership tabs are removed.

At the bottom of the screen are two boxes labeled 'First Character' and 'Last Character'. These are only operational when 'Formula' has been selected.

You use these boxes to enter the starting position code in the first character box and the number of characters after the code in the last character box.

Renaming a Relation

Select the relation in the list and use '**Properties'** on the shortcut menu and type in the new code and label details on the General Tab.



Deleting a Relation

Select the relation in the list and use '**Delete'** on the shortcut menu illustrated in the image above.

Changing the Properties Of A Relation

Select the relation in the list and use the shortcut **'Properties'** menu option. Five Tabs are shown. The Definitions Tab has been discussed above.

Relation Properties	? ×
General Definitions Relations Storage OwnerShip Fields	
Code New Relation1	-
Label Description of the relation	_
Memo	
Language English	
OK Can	cel

The General Tab

Allows to you set the general properties for the Relation. These include the code and the label and memo (if activated). The code will remain the same in all languages but the content of the memo field and label can change for each language you select from the drop down list box.

To set these you should first select the language from the drop down list box and then enter the label and memo in accordance with the language you have selected. The range of languages available for your labels will be consistent with the range of languages set when the Domain was created.

The Storage Tab

Relation Properties	?×
General Definitions Relations Storage OwnerShip Fields © Use default structure © Use custom structure	
Table Name New Relation1 Field Name Code Associated Dictionaries Codes List	
Dictionary T. Name SITC C TRS_SITC	
OK Cano	el

The storage tab lets you define the storage characteristics of the Relation ONCE only.

А window entitled Associated Dictionaries codes list lists _ the dictionaries that are associated with the relation. This will display the Label used in the Relations Tab list.

You have two options in the form of radio field selection boxes one entitled **'Use Default structure'** and the other entitled **'Use custom structure'**.

Use the custom structure when you want to activate the possibility to change the Table Name and field name parameters.

Use the default structure when you don't want to change them.

The Fields Tab

Name	Туре	Size	Contains data	Γ
		New F	ield	_
		Delete	e Field	_
				_

The Fields tab lets you define customs fields linked to your dictionnaries.

You have two options from the pop up menu **'New Field'** and **'Delete Field'**.

A list view shows the existing customs fields as well as their type and size.

17.3. Ownership Tab

The ownership tab enables the user to set the visibility status of the relation within the domain for other users.

🕰 Admin		
		Take OwnerShip
Visibility		
 Public : All this object 	users, according to t and modify its definiti	heir rights, can use on
- Bead-Only	: All users, according	g to their rights, can
use this ob	lect but they can't hit	odily to don'nition

The object owner is listed in the display box at the top of the screen.

Below this is a button marked **'Take Ownership'.** This allows Users with a higher level of profile permissions to take control of the relation.

The 'Visibility' section of the screen has three options – you must choose one:

Public

All users according to their rights can use the object and modify its definition.

Read only All users, according to their rights can use this object but they can't modify its definition.

Private

Definition and data can not be accessed by another user.

To Delete a Relation use the **'Delete'** shortcut menu option.

🛃 Eurotrace				<u>- 0 ×</u>
Domain Language Classification D	ictionary Relati	on Tools Help		
D 🗃 🗃 🗙 🛸 🕎 '	18 🔌 🎘	<u>N?</u>		
🗇 DataSet 🖶 Derived DataSet	📎 Classificatio	Plan		
Classification	State 🔺	🖉 User List 🔚 Relation		
CountryGeo:Geonome CountryNum3:IS03166 Num3 CountryNum3:IS03166 Num3 Period : <no 2004="" :="" <no="" labeb="" labeb<="" nc8:nc8="" period="" perioduct(c):="" product(c):="" td=""><td>231 Recor 239 Recor Emply Contains : 29 Recorc Contains : Emply 13333 Rei Emply</td><td>Relation Relation Relation Rew Properties Refresh State Delete Wizard Import Export</td><td>Type Transcodification</td><td>State</td></no>	231 Recor 239 Recor Emply Contains : 29 Recorc Contains : Emply 13333 Rei Emply	Relation Relation Relation Rew Properties Refresh State Delete Wizard Import Export	Type Transcodification	State
	▶			
Ready				16:51 //

17.4. Edit / Check Wizard menu option

You will want to visually check the relation and have the opportunity to manually amend any errors or add missing codes.

Select the relation in the list and use the 'Edit/Check Wizard' option in the shortcut menu (see previous image).

There are two different views of the relation. The first View is displayed on the **'All codes (Flat mode)'** Tab. The second view is displayed on the **'All codes (Tree Mode)'** Tab. Two other Tabs detail the Missing Codes and the Errors.

17.5. All Codes (Flat Mode) Tab

This view lists the relation in a flat mode. This provides the most simple view of the table so that it can be edited.

Country	Table Pays Maroc	GP	Lib_GP	ŀ	Key
AT	AUTRICHE	A	Pays UE		
BE	U.E.B.L.	A	Pays UE		
DE	ALLEMAGNE	А	Pays UE		
DK	DANEMARK	A	Pays UE		
ES	ESPAGNE	A	Pays UE		
FI	FINLANDE	A	Pays UE		
FR	FRANCE	A	Pays UE		
GB	GRANDE-BRETAGNE	A	Pays UE		
GR	GRECE	A	Pays UE		
IE	IRLANDE	A	Pays UE		
IT	ITALIE	A	Pays UE		
NL	PAYS-BAS	A	Pays UE		
PT	PORTUGAL	A	Pays UE		
SE	SUEDE	A	Pays UE		
DZ	ALGERIE	В	Pays UMA		
LY	LIBYE	В	Pays UMA		
MR	MAURITANIE	В	Pays UMA		
TN	TUNISIE	В	Pays UMA		

Clicking on 'Generate' opens the Generate automatic relation form

💐 Generate Automatic I	Relation		×
Dictionary	Mode	Link	
CountryNum3 CountryGeo	Keep Empty Select with UserList	CountryNum3	
Type C Keep Empty (Select with UserList	CountryNum3		•
Label Link Method	Exclude Cha	aracters<>/*+,;,)(){\&#</td><td></td></tr><tr><td>Like left Like Right Formula</td><td></td><td></td><td></td></tr><tr><td>🗖 Delete 🔽 Update 🖡</td><td>Z Append</td><td><u> </u></td><td>incel</td></tr></tbody></table>	

It enable you to link automatically your dictionaries by selecting the appropriate label link method as in the above example.

17.6. All Codes (Tree Mode) Tab

This view lists the relation in a tree mode. This enables the user to select a code in the left hand window and see the detailed information for the relation in the right hand side of the screen.



To edit the detailed information double click on the code and a dictionary will be displayed to select a new valid code from.



The drop down list of dictionaries lets you choose the dictionary and permits you to see the relationship from another direction.

The available possible associations are listed in the left hand part of the screen.

The right hand part of the screen lists three different types of associations that you can make.

Associate using simple text match Use this option when the label is identical.

Associate excluding following characters You can use this option to exclude certain specified characters.

Associate like text*

This association type enables you to match using the standard `*' wildcard.

The additional options are to replace existing links. You can associate only the unassociated codes, or associate all the codes and delete the existing relations.

When you have set your options as required click the OK button.

The **Insert code** button lets you add a code in the relation file. The appropriate dictionary is automatically displayed for you to select a valid code.

The **Delete code** button lets you delete.

The **Apply for all children** button lets you automatically assign the same relation that you have defined for the parent code, to all of the 'children' sub codes that belong to the parent code.

There is also the **label language select list** at the bottom left corner of the screen which lets you set the display language of the codes and labels.

17.7. Missing Codes Tab

This Tab lists the missing codes for the relation.

🖷 Edit Relation			
All Codes (Flat mode) All Codes (Tree mode) Missing Codes Errors Distribution keys C2GP : Country AA : Pays inconnu C E : C.E.E C C : EX. TCHECOSLOVAQUIE KP : Corée VA : Vatican MARBOC SU : C.E.I EX U.R.S.S ZW : ZIMBABWE MC : Monaco PR : Puerto Rico LU : Luxembourg			
	Ap	ply for all children	
rrançais	Apply		Lancel

17.8. List Error Tab

This Tab lists the Errors. This enables the user to easily view the errors in the relation (all codes must exist in the dictionaries).

a, Edit Relation				_ 🗆 🗙
All Codes (Flat mode) All Codes (Tree mode) I	Missing Codes Errors Dis	tribution keys		
C2GP : Country				
	Insert code	Delete code	Apply for all chil	dren
Français		Apply	Ok	Cancel

17.9. Distribution Keys Tab

This Tab lists the distribution keys of the relation. This enables you to select a code in the left hand list of the screen and to see which groups that code belongs to in the right hand part of the screen.

2GP : Country	y G	P La	bel	Distribution Key	
-		Pa	ys arabes		
AA : Pays inconnu	E	Pa	ys islamiques		
AD : ANDORRE					
AE : EMIRATS ARABES UNIS	_				
AF : AFGHANISTAN					
AG : ANTIGUA ET BARBUDA					
AN : ANTILLES NEERLANDAISES					
AO : ANGOLA					
- AR : ARGENTINE					
AT : AUTRICHE					
- AU : AUSTRALIE					
- AV : AVITAIL.PAV.ETRANGER					
- 🔁 AX : AVITAIL.PAV.MAROCAIN					
- BA : BOSNIE HERZEGOVINE					
	-				
		114 13		11 F 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

You can change these groups by using the 'Insert code' button to insert new valid group codes (a dictionary is displayed listing the valid codes for you to select from), and the 'Delete code' button to delete a code.

To edit the label double click in the label field type the new label and click on the 'OK' button.

To edit the distribution key codes in the distribution key code column, double click on the column, type the new keys and click on the 'OK' button.

When you have finished editing your relation click on the **'Apply'** button to update the changes and the **'OK'** button to save them. If You wish to exit without saving any changes made use the **'Cancel'** button.

17.10. Wizard menu option

Select the relation in the list and use the 'Wizard' option in the shortcut menu.



This displays the relation in grid format and allows you to directly edit the values in the grid.

🕂 Edit Relat	ion						
All codes (Fla	All codes (Flat Mode) All Codes (Tree mode) Missing Codes Errors						
CountryNum	Label CountryNum3	CountryGeo	Label CountryGeo				
004	Afghanistan	AF	Afghanistan				
008	Albania	AL	Albania				
012	Algeria	DZ	Algeria				
020	Andorra	AD	Andorra				
024	Angola	AO	Angola				
660	Anguilla	Al	Anguilla				
028	Antigua and Barbuda	AG	Antigua and Barbuda				
032	Argentina	AR	Argentina				
051	Armenia	AM	Armenia				
533	Aruba	AW	Aruba				
036	Australia	AU	Australia				
040	Austria	AT	Austria				
031	Azerbaijan	AZ	Azerbaijan				
044	Bahamas	BS	Bahamas				
048	Bahrain	BH	Bahrain				
050	Bangladesh	BD	Bangladesh				
052	Barbados	BB	Barbados				
112	Belarus	BY	Belarus				
English	Generate	Clear	Apply OK Cancel				

17.11. Import data into a relation

Select the relation in the list and use the 'Import' option in the shortcut menu to access the import wizard (see image above).

Follow the standard Eurotrace importation wizard steps as prompted on screen.



17.12. Export data from a relation

Select the relation in the list and use the 'Export' option in the shortcut menu to access the export screen. You must select the field of the table that you wish to export. You can export to Microsoft Word, Excel, text file and CSV format file by choosing the format from the buttons on the bottom of the screen.

N.B. The user list drop down list box is not used.



When you have chosen your options use the 'Close' button to exit the Export options.

18.Managing Datasets

18.1. Creating A New Dataset

Select the Dataset Tab on the main screen.

Either right click in the Dataset Window and select the **'New'** menu or click on the **'Create New Dataset'** button

The 'Dataset Properties' window appears allowing you to set the properties of the new dataset.

🛱 Datase	t Properties	? 🔀	
General	Security OwnerShip		
D	Code New Dataset	_	
Label			
Memo		_	
Langua	ge English 💌		
	ОК	Cancel	select the directory to save the
Save your new l	Dataset file	<u>?</u> ×	
Save jn	PsaDataset 💽 🗢 🖻 📸 -		
History History Desktop My Computer	図(Croatie_DerivPsa.dta) 図 Croatie_PSADataset2.dta 図 Croatie_PSATest2.dta 図 Croatie_SADpsa.dta		
My Network P	File name: NewDataset1.	<u>S</u> ave	
	Save as type: Dataset Files	Cancel	The table) Conder <i>(</i> Conderson all conderson de la conde
	J.	li.	type a unique Code.
	Dataset Properties	? 🔀	This code should be descriptive
123	General Security OwnerShip Code New Dataset	_	

as it will be appended to the domain name in the data file that is created for each dataset.

In the **'Label'** field you can type a label for the dataset. This label does not have to be unique but you should use labels that will help you identify the dataset.

In the **'Memo'** field, you can type text, but only if the memo field checkbox was flagged in the Structures tab of the Domain Properties window.

You may change the General Properties of a dataset at anytime. Either select the dataset you wish to work with and from the shortcut menu choose **'Properties'** or select the Dataset you wish to work with and then click the **'Object Properties'** button.

18.2.1.1.1.

18.3. The Structure Tab (Only available when creating a Derived dataset)

The Structure Tab lets you set the maximum number of shared views for the dataset from a drop down list of options.



The 'Derived Dataset' check box and drop down selection list will be unavailable when you create the dataset – but become available for derived datasets. You use these to set the link between the main datasets and the newly created derived dataset

18.4. The Ownership Tab lets you set the visibility of the dataset to other users who might access the domain.

A 1 1	
Admin	
	Take OwnerShip
/isibility	
 Public : All users, a this object and mo 	iccording to their rights, can use dify its definition
 Read-Only : All use use this object but 	ers, according to their rights, can they can't modify its definition

There are three levels of visibility that are selected by clicking appropriate in the selection indicator. The on screen text explains their functions.

Objects that are set to be private are not necessarily local objects – it is possible to create a private dataset in a domain stored at another location, in which case the dataset will still remain only accessible by the person who created the domain and also the database administrator.

N.B. The 'Object Owner' field displays the owner of the object. This is normally the person who created the object. However, you should be aware that the rights and permissions to create view, modify and delete data and objects are assigned by the database administrator to the users through, 'User profiles'. Another user with a higher set of permissions than your set – in other words a higher level of 'User Profile' - will have the ability to use the 'Take Ownership' button on the ownership Tab Screen and take ownership of your object.

A user can take control of a Guest's objects – a Manager can take control of a User's objects and the Database Administrator can take control of everyone's objects!

Other users with the same level of user profile as you will not be able to take control of your objects (unless of course you both have database administrator profiles assigned).

By managing the permissions assigned by the database administrator through 'User Profiles' and by setting the visibility of the objects as you create them it is therefore possible to fully manage the access to your datasets. It is important to practice and understand these controls, if you are to manage the visibility and access to confidential data sets. These controls are further enhanced by the addition of the extra security controls below.

Dataset Properties	?
General Structure Security OwnerShip	1
DataSet Password Protection	
Your Password	
This ensures that your database cannot b application without the correct password.	e opened in any
Save PassWord in Structure File WARNING! if you unselect this option password, it can NOT be recovered at be inaccessible !	and lose your nd your data will
Encrypted Database An Encripted database ensures your d read using a Text Editor (NotePad), us will slow down data access.	ata can not be ing this option
will slow down data access.	Cance

The security properties of the dataset, can only be set when the dataset is initially defined. If you do nothing, your Dataset will not have any security applied.

If you click in the check box **'Dataset Password Protection'** you can select the type of Password Protection you would like to apply to your Dataset.

If you select the check box 'Save Password in Structure File' the password that you type will be saved as part of the Dataset.

This Dataset can then only be viewed and edited using EUROTRACE.

The Dataset can only be opened with other applications (MS Access) if the correct password is used. If this option is unselected, you must supply a password each time the domain is opened with EUROTRACE.

If you select the check box 'Encrypted Database', the entire data ('.dta') file will be encrypted and therefore illegible if opened with any software except EUROTRACE.

Warning! It is not possible to recover a forgotten encrypted password, make sure you do not forget it!

18.6. Deleting a Dataset

Select the Dataset you wish to delete and either click on the **'Delete'** button **\Delete** or choose **'Delete'** from the shortcut menu.



18.7. Backup copies of deleted datasets

When you delete datasets from a EUROTRACE Domain, a backup file is created to make it possible to retrieve accidentally deleted datasets.

N. B. This file is called **Domain name_Dataset name** and will be located in the path stated under Tools Menu Option's sub Menu Backup Tab.



18.8. Dataset Structural Definition

When you create a new dataset you have to define the structure of the dataset. How many dimensions, how many values, what types of dimension, etc.

When you specify a dataset's definition, the information is displayed in summary form on the right hand side of the screen in the **`Definition Tab'**.



TIP! Remember that in order to define your dataset, you will need to have established your dictionaries first.

To define the dataset either select the dataset and choose 'Structure' from the shortcut menu or use the 'Definition' button \blacksquare .

🔀 Eurotrace	- CCTEST					
Domain Langua	ige DataSet Tools	Help				
D 🖻 👔 🛛	X 📮 🏽 🗖		\?			
🗇 DataSet 🖡	🔓 Derived DataSet 🏻	🖗 Classificat	ion Plan			
DataSet	State		🖞 De	efinition	🍫 Views	🗙 Errors 😭 History 🧟
DATAMS : F XRATE : E>	New Properties			SPLITE	PERIOD : SP ar : <no lab<="" td=""><td>PLIT_PERIOD el></td></no>	PLIT_PERIOD el>
	DataSet Properties Refresh State Copy Delete Import Export COMEXT Export	Structure Scope Validation Editor Des	ign	Per REPCC TRADE PARTC PARTC HSCOL ORIGIN HSCOL H	iod : <no la<br="">DE : REPOI TYPE : TRA ODE : PARI ERIM : <no o Label> M : HS TRIM UE : ECVAL UE : USVAL ASS : NETM IY : SUP QU</no </no>	AF bel> RTING COUNTRY ADE TYPE TNER COUNTRY ONISED SYSTEM IGIN COUNTRY CODES Label> 4 UE .UE ASS IANTITY JPQTYCODE

18.9. Adding a New Dimension to the Dataset

In the dataset definition Tab window, click on either the 'Period' or 'Year' dictionaries (which are created automatically when you create a new dataset) and click on the right hand mouse button and use the '**Definition'** shortcut menu option.

joon Year	: <no label=""></no>		Label Memo
	New Key New Value	Coded Di Independ	mension Jant Dimension
	New Group Delete		
	Move Previous Move Next		Dimension Structure Period Codification Comext (00 Annual)
		-	Structure Code Size 2

The dataset definition screen is displayed. This is the place where you can define the structure of your dataset.

The fields are listed in a box on the left hand side of the screen.

The right hand side of the screen will change to show information about the various fields as and when you click on the fields to select them.

To add a new dimension to the dataset click on the right hand mouse button in the field list window and select the 'New Key' menu.

The **'New Key'** shortcut menu lets you add two types of dimension; Coded Dimensions and Independent Dimensions.

18.10. What is a coded dimension?

A coded dimension is a dimension that is linked to a dictionary. An example would be a dictionary of country codes, in which case the dimension might be called 'Country'. The Dimension has multiple possible valid code values listed in the country dictionary. The dimension could for example, contain the code values such as 'FR' for France, 'DE' for Germany (Deutschland) or 'GB' which ISO use somewhat misleadingly to identify the United Kingdom - despite the fact that Northern Ireland is not a part of Great Britain.

Coded dimensions are therefore important identifiers and form part of the unique identifier key for each record in a dataset.

In a flow or movement from one country to another, it is possible to have a dataset that has one coded dimension declared for the origin country and another

dimension for the destination country. In such datasets both of the coded dimensions would share a global dictionary of valid country codes, but the records of data themselves could have different country codes stored in the country of origin and country of destination positions.

Coded dimensions are also commonly used for classifications of groups of goods or types of product or service. Similarly lists of companies, commodities and organisations can also be managed through the use of dictionaries, codes and coded dimensions in the datasets.

When your records are then being validated, each code can then be checked against the relevant dictionary and scope of valid codes to ensure that the data are permissible.

18.11. Adding a coded dimension

If you choose a **'Coded Dimension'**, a window is displayed with a list of dictionaries. N.B. These are the dictionaries that you have made previously. If your list of dictionaries is blank, it is because you need to make some dictionaries first ! – (You cannot associate non-existing dictionaries to your datasets).



Select one to attach to your new dimension and click the **'OK'** button.

The new dimension is added to the dataset and, by default, the name of the dictionary is used to name the dimension (displayed in the **'Code'** field).

You may change this name at any time by typing a new name in the **'Code'** field.

You may also apply a descriptive label to it by typing in the **'Label'** field.

Similarly if you had the **'Memo'** box checked on the Structure Tab when you created the Domain, you can type a memo in the **'Memo'** field.

A drop down list box of Languages at the bottom of the screen allows you to set the display language of the dictionary labels.

Other controls exist at the bottom right corner of the screen to establish the Dimensions Structure (see 'Dimension Structure Settings' below).

18.12. What is an Independent dimension?

An independent dimension is a dimension that is NOT linked to a dictionary.

There may be times when you wish to include a dimension in your dataset structure which is not linked to any dictionaries that you have defined within the Classification Plan. In these cases use an Independent dimension and not a coded dimension.

You can still validate the content of these dimensions but rather than validate them against a list of valid dictionary codes they can be validated by way of Microsoft Access compatible SQL (see below).

18.13. Adding an independent dimension

If you choose an **'Independent Dimension'** the dimension is added to the dataset with the default name 'NewFree'.

You can change the '**Code'** and '**Label'** by entering text in the code and label boxes.

Below the memo field are the parameters to define the structure of the independent dimension (see 'Dimension Structure Settings' below).

, ↓ Period : (Sans Libellé) , ↓ Peri < Sans Libellé) , ↓ Contract : Sans Libellé) , NewFree : (Sans Libellé)	Label Memo
	Independant Dimension Type General Number Size 8 Validation Rule
Activate Operation Annulment Management	Included in monitoring

A validation rule using Microsoft Access SQL syntax can be applied to independent an dimension, and a check enables box you to include the validation test in the monitoring process importing when and exporting data to the dataset.

Having set the above fields as you wish for your dimension continue to add and define other dimensions as required, or add some values (see adding values below). When you have defined and checked your dataset structure click on the 'OK' button to save it.

18.14. Dimension Structure Settings

When you add dimensions, they are initially inserted with a default structure. You can change the structure or accept the default settings.

N.B. The Period and Year Dimensions are special cases and are dealt with in the next section of this documentation.

The Structure options allow you to specify the way the dimensions are stored in the database, a range of standard Microsoft Access data types are supported.

	Label Memo	
	Independant Dimension Type General Number Size Validatio Text Long Integer	8
- 4-5-1- 0	Integer Date/Time Boolean	

You must select a data type from the 'Type' drop down list box. The default size is displayed in the Size box.

If the 'Size' box is displayed in black font, you may change the size of the data type to be appropriate to your needs.

Some data types, however, have a fixed size format. You are not able to change these. If the data type is of a fixed size format, then the Size box displays in grey font and you will not be able to change the value shown.

'Validation'

Below the Type list and Size box is a Validation Rule box.

Here you may enter a validation rule (see Validation rules section later for more on validation rules).

18.15. Include in Monitoring

If you want to include the Independent dimension in the on-screen monitoring process when importing and exporting data click in the check box entitled **'Include in monitoring'**

18.16. Annulment Operation

If you want to **'Activate the Operation Annulment Monitoring'** click in the checkbox underneath the field list to activate this feature.

A drop down list box of `Languages' at the bottom of the screen allows you to set the display language of the dictionary labels.

18.17. Changing the Structure of Existing Dimensions

It is possible to change the structure of the existing Dimensions and fields by selecting the dataset, then the right clicking to get the shortcut menu , then selecting the 'Structure' sub menu option to see the dataset definition screen. You then select the dimension or field you wish to change by clicking on it in the list and then change the parameters in the bottom right hand corner of the screen.

The parameters and controls change depending upon the qualities of the field selected.

The Period Dimension and the Year Dimension are both created automatically when you create a new dataset, but you can reset their structures to suit your needs as follows:

Period Dimension

Select the Period dimension by clicking on it .

DataSet Definition of New Dataset3 : <sans< th=""><th>Libellé></th></sans<>	Libellé>
Fields Period : <sans libellé=""> Year : <sans libellé=""></sans></sans>	Code Period
	Dimension Structure Period Codification Comext (00 Annual)
Activate Operation Annulment Management	Included in monitoring
Language Français	OK Cancel

If you want to change the type of period codification, select a different type from the **'Period Codification'** drop down list.

You can also change the storage structure be selecting from the structure drop down list box.

The following types of storage structure are supported.

- **Code** This is used to store the actual dictionary codes in the dimension and is the default type.
- **Index**This stores a unique identifier for each code and is stored as a number. This can save space, but will increase processing time.

- **Constant** Only one code from a dictionary is used in the dataset. This code will not be stored for each record and therefore saves time and space.
- **Transposed**This is used to store in the EUROTRACE record the values for each selected code of the Dictionary. See section entitled 'More Information On Transposed Period Data Structures' below.
- **Metadata** This is used to store the codes of a dictionary as additional information to the values. This ensures that the values of this dimension are taken from the dictionary, if the values do not exist in the dictionary they will be refused. This structure can be useful to store flags.

Year Dimension

Select the year dimension by clicking on it.

DataSet Definition of New Dataset3 : <sans< th=""><th>Libellé></th><th><u>?</u>×</th></sans<>	Libellé>	<u>?</u> ×
Tedus	Label Memo	
	Year Structure From 1980 To 2005 Type Numeric Size 2	
Activate Operation Annulment Management	19?? Start 1970	

You can select the Start Year and type from the two drop-down lists and add a label and memo.

Constants

To define a period dimension as a constant, click on the dimension and select constant from the structure drop down list.

When you define a dimension as constant, you must designate a code from a dictionary to be used.

	Code Period
🯧 📴 Year : <sans libellé=""></sans>	
	Memo
	Dimension Structure
	Period Codification Comext (00 Annual)
	•
	Structure Code Size 2
	Structure Code Size 2
	Structure Code Size 2 Code Index Constant

Click on the **'Change'** button to select a code to be used as the constant.

PataSet Definition of New Datas	Commension Commension	In : Period : Select a Dictionnary snuel 1 : Ier Semestre 2 : 1 : Ier Trimestre 2 : 2 : Pare Trimestre 2 : 2 : Pare Trimestre 2 : 2 : 2 : Pare Trimestre 2 : 2 : 2 : Pare Semestre 2 : 2 : 2 : Pare Semestre 2 : 2 : 2 : Pare Semestre 2 : 3 : 3 : 2 : 2 : 2 : 2 : 2 : 2 : 2 :	Constant Cod	
Activate Operation Annulment Mana		Structure Constant Cst <nothing></nothing>	OK Size 0 Cr	Cancel
Language Français	-		ок	Cancel

The selected code will be marked with a red check mark in the dictionary list.

Click the 'OK' button to confirm the selected constant.

A variety of period Codification types are supported. Select the one you need from the Dimension Structure Period Codification drop down list box:

> Comext (00Annu al) SAM Statra Comext (52 Annual)

More information about Transposed Period Data Structures

When you define a Dimension as transposed, you must then choose the codes from a dictionary to be included.

Period : <sans libellé=""> Year : <sans libellé=""></sans></sans>	Code Feriod Label Memo
	Dimension Structure Period Codification Comext (00 Annual)
Activate Operation Annulment Management	InLine Dimension Code Selection Change

Click on the 'Change' button at the bottom left of the window to select the codes.

Source	Dictionary	User List KNo L	JserList>
ailable Codes	Label	Selected Code	s Label
00	Annuel	🦈 01	Janvier
Marrie Contraction		🨕 02	Février
		🤣 03	Mars
		🥬 04	Avril
		> 🛛 😕 05	Маі
		1 2006	Juin
		>> 🛛 🦈 07	Juillet
		08	Août
		Fct 09	Septembre
		/ 10	Octobre
		<u> </u>	Novembre
		<< 💛 12	Décembre
		²¹	1er Trimestre
		22	2ème Trimestre
		23	3ème Trimestre
		24	4ème Trimestre
		1 31	1er Semestre

Whilst holding down the 'Control' key on the keyboard, select the codes you want in the left hand window by clicking on them. These are highlighted in blue when they are selected.

Then click on the top arrow button in the centre of the EUROTRACE screen to move the selected codes to the right hand side of the EUROTRACE screen.

When you have checked your list of selected codes in the hand side of the screen, you can click on the **'OK'** button to confirm your selection.

The other arrow buttons in the centre of the screen are for moving all or individual codes.

Filter Code Selection		×
Enter Pattern String for ? : Any single charactel * : Zero or more charact # : Any single digit (0-9) [charlist] : Any single ch [!charlist] : Any single ch	Code Selection r ters aracter in charlist haracter not in charlist.	
	OK	Cancel

Tip ! The FCT (Filter Code Selection) button provides the useful feature to search for a set of codes based upon a user defined filter. Standard wildcards and instructions are provided on screen.

However, please note that it is THE CODES that are filtered and not the labels.

Adding a New Value Field to the Dataset

From the Dataset Definition window, open the shortcut menu and select 'New Value'.

New Key 🕨	Label	
New Value New Group Delete	Standard Value MetaData	
Move Previous Move Next	Dimension Structure -	
	Period Codification	Comext (00 Annual)
	Structure Code	Size 2

There are two types of new value you can add from the New Value sub menu:

Standard Value and Metadata.

`Standard Value'

Select the standard value sub menu to add a standard value to the dataset. Name the value by typing in the **'Code'** field.

— Ĵ- Period : <sans libellé=""> — Year : <sans libellé=""> — [͡v] NewValue : ≺Sans Libellé></sans></sans>	Label Memo	
	Value Structure Type General Number Size 8	8

You can apply a descriptive label to it, by typing in the **'Label'** field.

Similarly if you had the 'Memo' box checked on the Structure Tab when you created the Domain, you can type a Memo in the 'Memo' field.

Setting the Value Structure

A drop down list enables you to set the value storage structure and the size box allows you to set the size where the type of structure permits.

DataSet Definition of New Dataset3 : <sans< th=""><th>Libellé></th><th></th><th></th><th><u>?</u>×</th></sans<>	Libellé>			<u>?</u> ×
rielos ↓ Period : <sans libellé=""> ↓ @ Year : <sans libellé=""> ↓ NewValue : <sans libellé=""></sans></sans></sans>	Label Memo Value Type	Code NewValue Structure General Number Text Long Integer Integer Date/Time	Size	8
Activate Operation Annulment Management		Boolean Byte Currency	-	
Language Français 💌			ОК	Cancel

General Number Real numbers (precise to 15 digits).

Text Alphanumeric up to 255 characters (you must specify the size in the 'Size' field).

Long integer This type Stores numbers from -2,147,483,648 to 2,147,483,648 (no fractions).

Date/Time Date and time should follow the structure as defined in the regional settings of MS Windows.

Boolean True or false. **Byte** A number between 0 and 255. **Currency** Real numbers with (precise to 15 digits), as defined in the currency settings of MS Windows.

After adding and defining a standard value you can later set validation rules for the standard value (see section on validation rules).

Metadata Value A metadata value can also be added, in which case you must associate a dictionary to the value.

18.18. Adding Combined Fields as a Grouped Field

Grouping Dimensions can save storage space by creating an indexed group.

- J⊶ Period : <sans libel<br="">∰ Year : <sans libellé<br="">∏ NewValue : <sans i<="" th=""><th>lé> > _ibellé></th><th>Code NewValue</th><th></th><th></th></sans></sans></sans>	lé> > _ibellé>	Code NewValue		
	New Key New Value New Group Delete Move Previous Move Next	Value Structure Type General Number	Size	8

To add a new Dimension that is the combination of two or more other Dimensions, use 'New Group' from the shortcut menu.

N.B. After creating a new group, you can drag and drop the dimensions from the field list directly onto the New Group Icon in the Field list.



You can set the Group Structure to be either a **Concatenation** or an **Index** or a Multifile.

Concatenate: The two or more dimensions in the group are stored as one unique dimension, by storing the result of the concatenation of the codes.

This will only work if the dimensions to be grouped are defined as codes.

Indexed: This will store a

⊟– Ĵr: New Group : <sans libellé=""></sans> ∰y Year : <sans libellé=""> ↓ Period : <sans libellé=""> ↓ NewValue : <sans libellé=""></sans></sans></sans>	Code New Group
T. Astists Describes Associated Management	Group Structure Concatenate (Dimension Codes are concatenated and Expand to fit Partial Dimension Size) Indexed (Dimension are stored in a separate Table) MultiFile (Separate Data table on dimension position) Force Constant Storage

Multifile: This will provide separate data tables for dimensions. These tables have the name: **domain_datasest.dta**

and are stored in the same place as the .dom domain file

unique index calculated by all the existing combinations of the two codes.

The .dta extension means 'data'. Each dataset therefore has its own .dta file or several .dta files in the cases where the domain is stored as a multifile.

So if you had a dimension time in the multifile, by year, for the years 1998 – 2002, for a domain called customs and a dataset called evolution the multifile would produce:

Customs_evolution_1998.dta Customs_evolution_1999.dta Customs_evolution_2000.dta Customs_evolution_2001.dta

These .dta files are useful when you have a huge file greater than the 1 GB limit that exists per dataset when using Microsoft Access 97, because you can split the domain into several smaller files this way and thus not surpass the limit.

Force Constant Storage: This option under review: Not available in this release.

18.19. Changing the Order of the Fields in the Dataset

Select the item in the dataset that you wish to move. From the shortcut menu select **'Move Previous'** to move the item up one place in the list order and select **'Move Next'** to move the item one place down the list order.

Period : <sans - ∰ Year : <sans l<br="">- ₩ NewValue : <s - ↓ Office : <sans New New New</sans </s </sans></sans 	Libellé> ibellé> ans Libellé> Key • Value •	Label Memo
Dele Mov	e Previous e Next	Dimension Structure Change Structure Code Size 3
Activate Operation (Ann imant Managamar	, ☐ Included in monitoring

18.20. Operation Annulment Management

To activate the operation annulment management click in the check box at the bottom right hand corner of the dataset structure definition screen. If you have

selected this option you will be able to roll back any changes that you make to your dataset.

This checkbox adds an id column to your dataset table, which later on, is used to identify various import or export operations.

You can therefore at a later date, when your dataset has data in it, choose to undo a particular import operation by reference to the id number in the id column that this check box adds. If you have not clicked the checkbox, you will not have added this column and you will not be able to undo a specific load operation because, you will not be able to identify which records were loaded for a specific import operation.

N.B. You can only activate this feature when the dataset is empty.

18.21. Deleting Dimensions and values from a dataset

To delete a value or a dimension from a previously defined dataset, select the dataset, right click to access the shortcut menu, select the 'Structure' menu option, click on the item in the datasets structural definition list that you wish to delete, then right click and use the 'Delete' menu option.

N.B. You can't delete the Period or Year dictionary – these are mandatory.

18.22. Modifying Dimensions and values on a non empty dataset

On a non empty dataset, it is possible to execute the following modifications: Change of dimension's name Change of dictionary Modification of the type and size of the dimension (increase only allowed) Addition of a new value or dimension

Deletion of a dimension

Deletion of a key dimension

Modification of a value dimension in key dimension

Modification of a key dimension in dimension value

Modification of a group structure.

To process a modification, simply select a dimension and access the appropriate pop-up menu (right click):

📮 DataSet Definition of ConcatenateStatSAD : SAD for statistical purpose (Read-Only)			
Fields			
Titeds Time: Time Office: Office of dispatch/export code Controller: Controller's code SADNb: SAD Number ItemNb: Item Number Flow: Flow DateSAD1: date of acceptance of SAD The Items: Items CountryDispatch: CountryDestination CountryDestination PartnerCountry : P. NationalityTranspo Container:	Code Imp-Exp Label Importer/exporter identification Memo Dimension Structure Structure MetaData Size <= 8		
Language English 💌	<u>ОК</u> Са	ancel	

N.B. You cannot process more than one modification to the dataset at the time. After your modification, you will have to validate your current modification (clicking on OK or Process) before selecting a new modification.

This completes the documentation on changing the structure of datasets. When you have defined your datasets you can apply validation rules to these structures and then load data into them.

19. Managing Derived Datasets

Several functionalities relating to Derived Datasets are identical to "Managing dataset" part in paragraph 11. The user will refer to this section for more information on dataset management.

19.1. Creating a New Derived Dataset

Select the "Derived Dataset" Tab on the main screen.

Either right click in the Dataset Window and select the **'New'** menu or click on the

'Create New Dataset' button 🖳

The **'Dataset Properties'** window appears allowing you to set the properties of the new Derived Dataset.

🗃 Dataset Properties	? ×
General Structure Security OwnerShip	
DeBelgique	
Label Derived from Belgique	
Memo	
Language English	•
OK Car	ncel

19.2. The General Tab

In the **'Code'** field you should type a unique Code. This code should be descriptive, as it will be linked to the domain name in the data file that is created for each dataset.

In the **'Label'** field you can type a label for the dataset. This label does not have to be unique but you should use labels that will help you to identify the dataset.

In the **'Memo'** field, you can type text, but only if the memo field checkbox was flagged in the Structures tab of the Domain Properties window.

You can change the General Properties of a dataset at anytime. Either select the dataset you wish to work with and from the shortcut menu choose **'Properties'**, or select the Dataset you wish to work with and then click the **'Object Properties'** button
19.3. The Structure Tab

The Structure Tab allows you to set the maximum number of shared views for the dataset from a drop down list of options.



Unlike the dataset section, the **'Derived Dataset'** check box and the drop down selection list are available.

Eurotrace propose in this list all the Datasets previously created.

Select the dataset on which you wish to base your Derived Dataset.

19.4. The Ownership Tab

The **"Ownership"** Tab allows you to set the visibility of the dataset to other users who might access the domain.

📅 Dataset Properties 🙎 🔀
General Structure Security OwnerShip
Object Owner
Take OwnerShip
- Visibility
Public : All users, according to their rights, can use this object and modify its definition
$\mathbf{C}_{\rm use}$ Read-Only : All users, according to their rights, can use this object but they can't modify its definition
Private : Definition and Datas can not be accessed by another User
OK Cancel

It is the same tab as the one for the Datasets (see 11.4 section).

19.5. Setting the Security Properties of a Derived Dataset (only available under MS ACCESS)



It is the same functionality as the one for the Datasets.

19.6. Deleting a Derived Dataset

Select the Derived Dataset you wish to delete and either click on the **'Delete'** button \bowtie or choose **'Delete'** from the shortcut menu.



It is the same functionality as the one for the raw Datasets.

19.7. Derived Dataset Structural Definition

When you create a new dataset you have to define the structure of the dataset. How many dimensions, how many values, what types of dimension, etc.

When you specify a Derived Dataset's definition, the information is summarized on the right hand side of the screen in the 'Definition Tab'.

🛃 Croatie : Training croatie	
<u>D</u> omain <u>L</u> anguage <u>D</u> ataSet <u>T</u> ools <u>H</u> elp	
🗇 DataSet 🖣 Derived DataSet 💊 Classification Plan	
DataSet State DeBelgique : 50773 Records DeBelgium : 175401 Records DeBelgiumFr 690794 Records DeBelgiumFr 690794 Records DeBelgiumFr 98014 Records DeMirrorBeFr 1462662 Recor DeriveTest : Empty DataSet	Definition 🤣 Views 🗙 Errors 😭 History 🕵 Import Oper া 🕨 Period : <no label=""> Year : <no label=""></no></no>
Ready	12:09

TIP! Remember that in order to define your Derived Dataset, you need to have established your dictionaries first as well as the Dataset on which the Derived Dataset will be based.

To define the Derived Dataset, select either the dataset and choose '**Structure**' from the shortcut menu (as shown below) or use the '**Definition**' button .



After having selected the **"Structure"** menu the following screen appears:

Definition Action Query	om Belgiqu	ıe (Read-O	nly)			<u>?</u> ×
Dimension MultiFile Fil ↓ Period : Period ↓ Period : Period ↓ reporter : reporter ↓ partner : partner ↓ NC82001 : NC8 2001 ↓ Flow : Flow ♥ Value : Value ♥ Quantity : Quantity ♥ UnitSup : UnitSup	Label Pe Memo Month Cumulativ Trimester Semester Annual	Code Perio	d Cumul.	Trimest.	Semest.	Annual
Language English Cancel OK						

19.8. Adding a New Dimension to the Derived Dataset

In the **'Derived Dataset'** definition Tab window, right click and use the **'Dataset'** menu option and then the **'Structure'** option.

The Dataset Definition screen is displayed as shown in the following screen:

Definition Action Query	est : <no label:<="" th=""><th>></th><th></th><th></th><th></th><th></th><th><u>? ×</u></th></no>	>					<u>? ×</u>
Dimension ↓ Period : <no label=""> ∰ Year : <no label=""></no></no>	MultiFile Fil	Label Memo	de Perio	d			
Add Linked ► Add UnLinked ► MultiFile Filter Delete	Key Constant Value		Month	Cumul.	Trimest.	Semest.	Annual
Move Previous Move Next		Month Cumulative Trimester Semester Annual					
Language English	•				Cane	cel	ОК

This is the place where you can define the structure of your dataset. The fields are listed in a box on the left hand side of the screen.

The right hand side of the screen will change to show information about the various fields.

To add a new dimension in the Derived Dataset click with the right button on the list of dimensions and according to dimension to be added, select one of the menus. There are linked and unlinked dimensions.

19.9. What is a linked dimension?

A linked dimension is a dimension contained in the Dataset on which your Derived Dataset is based. There are three type of linked dimension: Key, constant and value.

A key is an unspecified dimension of the Dataset (value or constant) A constant is a dimension not declared as being a value A value is a dimension declared as value

19.10. Adding a linked dimension (key, constant, value)

Right click on **'Add Linked'** and then choose the **'key'**, **'constant'** or **'value'** option.

When you add for example a ` **linked key'**, a window will be displayed with a list of dimensions as shown in the following screen:



Note: This is the list of dimensions, which you have created in the Dataset on which your Derived Dataset is based.

- Add a linked key will display (in the screen) the list of all dimensions of the Dataset.

- Add a linked constant will display (in the screen) the list of the dimensions not declared as value in the Dataset.

- Add a linked value will display (in the screen) the list of the dimensions declared as value in the Dataset.

Select one dimension of the dataset to be attached to your new dimension and click on the **'OK'** button. New dimension is added to the Derived Dataset and, the name of the dimension is used by default to name this new dimension (displayed in the **'Code'** field).

You can change this name at any time by typing a new name in the **'Code'** field. You can also apply a descriptive label to it by typing in the **'Label'** field.

Similarly if you had the '**Memo'** box checked on the Structure Tab when you created the domain, you can type a memo in the **'Memo'** field.

A drop down list box of Languages at the bottom of the screen allows you to set the display language of the dictionary labels.

19.11. What is an unlinked dimension?

An unlinked dimension is a dimension, which is not related to a Dataset or a dictionary. It is an independent dimension. As explained for the linked dimensions, there are three type of unlinked dimension: Key, constant, value

19.12. Adding an unlinked dimension (key, constant, value)

Right click on **'Add UnLinked'** and then choose the **'key'**, **'UnCoded Key'** or **'Value'** option.

- If you have selected the **'Key'** option that means you wish to add an independent key and the system display the list of all the dictionaries present in the domain as shown in the following screen:



Select a dimension of a dictionary and click on the **'OK'** button.

- If you have selected the **'UnCoded Key'** option a dimension is added in the Derived Dataset with the default name **`NewUnCoded'**. You can change this name and the label at any time by typing a new name in the **'Code'** and **'Label'** fields.

- If you have selected the **'Value'** option a value field is added in the Derived Dataset with the default name **'NewDerived'**. You can change this name and the label at any time by typing a new name in the **'Code'** and **'Label'** fields.

19.13. Applying an Action Query

Select the **"Action Query"** tab in the structure screen as shown in the following screen:

DataSet Definition o	of DeriveTest : <no label:<="" th=""><th>></th><th><u>? ×</u></th></no>	>	<u>? ×</u>
Definition Action Quer	y]		
Label	Action Other Extrac	SQL Code SELECT * FROM [Belgique] WHERE Period='02'	-
	New Wizard Rename V Enabled Delete V Other Extraction Before Agregation After Agregation Before Period Calcul After Period Calcul Before Upgrade After Upgrade Move Previous Move Nevt		
		Cancel	UK

Right click in the list on the left and then choose the **'New'** option.

The system creates a new action with the default name **'NewAction'**.

It is possible to change this name by right clicking and by choosing the **'Rename'** option.

Type in the list on the right the query you wish to associate to this action.

The system will apply this condition when loading data from the dataset.

19.14. Importing Data

To import data in the Derived Dataset, right click on the desired Derived Dataset and in the contextual menu, select **'Import'**. The importation wizard is launched and the following screen is displayed:

You're trying to Upgrade You're trying to Upgra EXPORTTRA From DATAMS : DA	Wizard ade Data for : DSYS : < TA REC!	No Labe EIVED FI ata UnSe	I> ROM MS	Up ۱	Dat grac Niza	ta le ^l ird	
Deleted Data	Up to Date	Data		1000	1000	1001	1000
	1996	1995	1994	1993	1992	1991	1990
January							
February							
March							
April							
May							
June							
July							
August	02/01/2009						
September							
October							
November							
December							
4							
Clear Previous De empty Data Set	erived when im	porting (Do Op	ouble-Click to eration to Upg	Select/Unsel grade)	ect different	Cancel	Upgrade

The user has the possibility of selecting one or more cells and, double-click on it in order to choose one of the following colours:

- Green: If you wish to import new data for the month and the year of These are the changes I made for the requirements the selected cell

- Turquoise: If you wish to update the data from the Dataset on which your Derived Dataset is based

- Red: If you wish to remove data

Once colours are allocated to the selected cells, click on the **'Upgrade'** button. After the importation is carried out the concerned cells are displayed in grey colour.

20. Virtual datasets

IMPORTANT: if a virtual dataset is based on external table, be very careful linking the dimensions of the dataset and the fields of the table. The external data MUST be consistent with the nomenclature of your domain. A virtual dataset is a dataset without physical storage of the data.

The informations about the structure are stored but, instead of the physical data, a query is associated to the dataset. To create a virtual dataset click on the *Derived Dataset* Tab and select the menu item *Dataset - New*

New
Properties
DataSet 🕨 🕨
Outliers (
Refresh State
Сору
Delete
Upgrade Data
COMEXT Export

The Dataset Properties dialog is displayed, as usual for datasets creation. Insert the name for the dataset and click on the *Structure* Tab.

Dataset Properties	-?
General Structure Security OwnerShip	
Virtual Dataset	Single ● Multi-table
5. ID. 0	
External Data Source	
Access Database	
SQL Server	
Connection String / File	
Remove Selecte Edit Selected	
	OK Cancel

Check the Virtual Dataset box.

You can create **two different types of datasets,** depending on the source: Based on a dataset of the Domain, as for any derived dataset Based on an external database, Access, SQL Server or Oracle

Additionnaly, the virtual dataset can access a single table or use multiple tables and query(s).

There are several steps to build a Virtual Dataset: 153

- Create the Dataset
- Create the structure

If the source is external you have also to: Define the Query selecting the fields of the external table Link the dimensions of the dataset to the fields of the external table

20.1. Virtual dataset based on external Access database

Select the '*Access database'* option in the *External Data Source* section and click on the '...' button to browse the external Access database. Select the Access database and click on **OK**

Select Data Sou	rce			? 🛛
Look in:	C ALBANIA	•	⊨ 🗈 💣 📰•	
My Recent Documents Desktop My Documents	Log ASYCUDACSO_TIMtest ASYCUDACSO_TIMtest_0 Ballkan Ballkan Ballkan Ballkan Ballkan_Ballkan1_0 Ballkan_Ballkan2 Ballkan_Ballkan2 Ballkan_Ballkan2_0 Ballkan_Ballkan2_120	 Ballkan_Ballkan2_orig Ballkan_Ballkan3_0 Ballkan_testDataset Ballkan_TIMder_0 Ballkan_TIMtest Data db1 rtertet 	I	
My Network Places	File name:	is read-only	▼ ▼	Open Cancel

The database path and name will display in the 'Connection string / File' field.

If you have selected the "Single" table option, the screen will look like the following:

Dataset Properties
General Structure Security OwnerShip
Virtual Dataset
Access Database
SQL Server O Oracle
Connection String / File
C:\ALBANIA\Ballkan_Ballkan3.dta
۰ III ا
Remove Selecte Edit Selected
OK Cancel

Click on the **OK** button and the dataset will display in the dataset tab of the domain window.

In case of a multi-table virtual dataset, the screen will look slightly differently since you can add more datasources:

Dataset Properties	? 💌
General Structure Security OwnerShip	
Virtual Dataset 💿 Single 💿 Multi-tab	le
From 🚽	
External Data Source	
Access Database	
SQL Server Oracle	
Connection String / File	
C:\ALBANIA\Ballkan_Ballkan3.dta	
4	
Remove Selecte Edit Selected	
OK Cano	el

You can edit or remove a datasource by clicking on the related buttons.

20.2. Virtual dataset based on external SQL Server database

Select the '*SQL Server'* option in the *External Data Source* section and click on the '...' button to select the SQL database. This action will open a new dialog.

OpenExisting	Domain
- SQL Server D)atabase
Driver	SQL Server - Local 🔹
Database	
User Login	
Password	
Server	TESTXTNET7\SQLEXPRESS -
	 Windows authentication SQL Server security
	OK Cancel

Select the proper Driver from the *Driver* drop-down list.

Type the Host name/ Path or Browse the database as requested, depending on if your SQL server installation is local or remote (for more informations see the section *Domain Storage Properties* in the chapter **13 – Managing Domains**).

Click on the **OK** button. The database connection string will display in the *Connection string / File'* field.

Click on the \mathbf{OK} button and the dataset will display in the dataset tab of the domain window.

20.3. Virtual dataset based on external Oracle database

Select the '*Oracle'* option in the *External Data Source* section and click on the '...' button to select the Oracle database. This action will open a new dialog.

OpenExistingDomain	
Oracle Database	
ODBC Driver	Microsoft ODBC for Oracle
Oracle Host	ISA0752
Oracle Port	1521
Oracle SID	XE
Oracle DB	
Oracle UserID	
Oracle User's password	
	OK Cancel

Select the proper Driver from the *ODBC Driver* drop-down list

Type the DB path, username and password as requested (for more informations see the section *Domain Storage Properties* in the chapter **13 – Managing Domains**).

Click on the **OK** button. The database driver information will display in the *Connection string / File'* field.

Click on the **OK** button and the dataset will display in the dataset tab of the domain window.

20.4. Virtual Dataset Structure

Select the menu item *Dataset – Structure* to build the structure of the dataset, as described in the section **16 – Managing Derived Dataset**



20.5. Virtual dataset Query

This step is mandatory only for virtual datasets with external source.

Select the 'Dataset - Virtual DS - Query' menu item



This action will open a new dialog.

SQL Query for Dataset: 'NEWVirtual' containing 5 dimensions ('Period', 'Year', 'Product', 'Country', 'NewValue') 🔤 🔤				
List of sources				
Source		Year	Period	
C:\ALBANIA\Ballkan_Ballkan3.dta				
	001 D:			
I ables	SQL Dimensions	Query		
Data Error				
Flow				
Operation				
source X_Import				
	Liear Query Build Que	Ery Cance		

The *Source* panel lists the associated dataset source(s) for this virtual dataset.

The *Table* panel of the dialog will display the list of all the available tables of the external database.

Select a table and the *Dimensions* panel will display the list of the fields of the table.

Select all the dimensions needed from the list and click on the **Build Query** button. The query will display in the *Query* panel.



Click on the **OK** button and **YES** to confirm the selection.

20.6. Link Dimensions

This step is mandatory only for virtual datasets with external source.

Select the 'Dataset - Virtual DS - Link Dimensions' menu item



This action will open a new dialog

The column "Field" lists the fields of the external table, and the column "Dimension Linked" will list the dataset dimensions associated.

Click on each field to display the list of the dataset dimensions:

Source	Year Perio
C:\ALBANIA\Ballkan_Ballkan3.dta	a
The dimensions in the query m	nust match the dataset structure
The dimensions in the query n	nust match the dataset structure
The dimensions in the query m Field	nust match the dataset structure Dimension Linked
The dimensions in the query n Field Period	Dimension Linked
The dimensions in the query n Field Period Year Pather	Dimension Linked PERIOD YEAR
The dimensions in the query m Field Period Year Partner Product	Dimension Linked PERIOD YEAR
The dimensions in the query m Field Period Year Partner Product	nust match the dataset structure Dimension Linked PERIOD YEAR 같 Form1 같 오 오
The dimensions in the query m Field Period Year Partner Product	Dimension Linked PERIOD YEAR
The dimensions in the query m Field Period Year Partner Product	Dimension Linked PERIOD YEAR YEAR

Select one dimension and click on the OK button. The dimension linked is now listed in the "Dimension Linked" column:

Query						_ ×
st of sources						
Source				١	'ear	Period
C:\ALBANIA\Ballkan_	Ballkan3.dta					
The dimensions in t Field	he query must ma	tch the dataset s	s tructure Dimension Linked			
Period			PERIOD			
Year			YEAR			
Product						
•						
						OK
Clear					ancel	UK

You must link all fields to the dataset's dimensions. If you don't do so, you will be prompted with the following message when clicking on the OK button.

Eurotrace 🛛 🔀
Please link all the dimensions
ОК

20.7. Virtual dataset Data

This step applies only for virtual datasets with external source.

To run the query and see the data select the menu item *Dataset-VirtualDS-View Data*



If the dataset is based on an external source this action will open a new dialog which display the results of the query associated to the dataset.

Ę	1 View dat	a				
I	Datset:					240 records
	Period	Year	Partner	Product	NSTR	▲
	12	2007	DE	84082099	939	
	12	2007	DE	84089027	939	
	12	2007	DE	84099100	939	
	12	2007	DE	84099100	939	
	12	2007	DE	84099900	939	
	12	2007	DE	84099900	939	
	12	2007	DE	84131900	939	
	12	2007	DE	84133020	939	
	12	2007	DE	84133020	939	
	12	2007	DE	84136020	939	
	11	2007	GR	25161290	632	
	11	2007	GR	25162000	632	
	11	2007	GR	25169000	632	
	11	2007	GR	25174100	631	
	11	2007	GR	25201000	633	
	11	2007	GR	25221000	642	▼
	Export to clip Copy all C Copy se	bboard Sep election Tai	arator type bulation 👻 Copy			Paging value 1000 Record: 1 to 240 (1 to 1) Close

To modify the number of records to display modify the *Paging Value* field, by default set to 2000.

Click on the ">>" button to display the next pages of data or the "<<" button to display the previous pages of data.

To export and save the data set the options in the *Export to clipboard* section: choose the separator type and if to copy all or only a selection of data. Click on the **Copy** button. The data have been saved to the clipboard.

Eurotra	ce 🛛 🔀
٩	The data is in the clipboard
	ОК

Paste the data on the kind of output you prefer: text file of excel sheet. Click on the **Close** button.

21.Introduction to Validation Rules

21.1. About this chapter of the User Guide

The first time you read this chapter you should aim to understand the types of validation rules and concepts available. These are central to the way the Eurotrace DBMS application works.

It's important to have an understanding of the different types of validation rule, before trying to implement them. It is also a good idea to develop the validation rules using a test dataset or copy dataset before implementing them on important datasets.

When the rules have been set up, tested and then refined, you can implement them on your working datasets.

21.2. What are Validation Rules?

Validation Rules enable the testing of data at various stages during the management of the information.

By using validation rules you can ensure the quality of the data in the datasets. This is essential when the data will be used to derive statistical information.

Validation rules are therefore important to maintain data quality.

They are also a central and important part of the philosophy of using the Eurotrace DBMS application, to control and maintain the quality of data within a dataset.

Who implements them?

The project manager should explain to the database administrator which rules are required. The database administrator should then set the rules up and test them with the project manager.

How are the validation rules made?

The rules are established as 'tests' and usually take the form of combinations of logical or numeric queries. Although often simple, they can also be as complex as you need them to be. The test language that is supported by Eurotrace is Microsoft Access Jet engine format SQL.

An example – detecting the presence of required values in a record

When importing data into a Eurotrace dataset – normally you want to ensure that you don't import records into the dataset if the records have important values missing.

So one of the simpler, but very useful validation tests, is to check for the presence of 'required values' in a record during the importation of the data into the data set.

The following example explains the relevant concepts, and also how to implement this type of validation rule.

The first concept to understand is that records are made up of codes and also values.

The record's codes can be checked against 'dictionary' lists of valid codes.

The record's values can be validated against ranges of acceptable values.

More complex forms of validation can also be established that specify a certain action or test to be made in certain sets of conditions. I.e. If a particular code equals one value and another code equals something else then test that a third code is equal to a particular specified code.

The table of fictional data below illustrates codes, values and missing required values.

Id	Year	Period	Country code 1	Country code 2	Value 1	Value 2	Value 3
1	1999	01	LU	UK	12	100	56
2	1999	01	LU	FR	2	2	
3	1999	01	LU	DE	2		5
4	1999	01	LU	DZ	3	3	33
5	1999	01	LU	XX	4	4	85
6	1999	01	LU	FI	6	5	
7	1999	01	LU	PO		9	
8	1999	01	LU	TU	7	999	6

The codes of the records are listed in red. The values of the records are listed in blue. Each record in the table also has a unique identification number in black (the ID column). The fields in the records with values that are missing are highlighted in yellow.

For the purpose of illustrating the 'required values' concept, we will imagine that each of the 3 values, for each record is a 'Required value'. Our test will be to check whether each of these required values is present in each record before it is imported into the dataset.

The first thing to do is to set each of the three values as a required value.

🛃 Eurotrace : Ma	aroc		
Domain Data lang	juage DataSet To	ols Help	
	20 46	1 🔊 🔬 !	<u>8</u>
🗇 DataSet 🖷	Derived DataSet	🖗 Classificatior	n Plan
DataSet	State		🏥 Definition 🍫 Views 🗙 Errors 🎲 History 😪 Import Operation 🤹 Export Operation
Declaration :	New Properties		C Split : Split des Fichiers Annoth : Mois de la Déclaration
	Dataset Refresh State	Structure Scope	– ஹ Year : Année de la Déclaration → Day : Jour de la Déclaration
	Copy Delete	Validation Editor Design	+ Office : Liste des Bureaux Douaniers NumDec : Numéro de la Déclaration
	Import Export		General Company : Liste des Entreprises
Ready			18:01 //

To do this you would select the 'Dataset' menu and then the 'Validation' Sub menu to see a screen similar to the one below that lists definitions of the dataset. By scrolling down the list you can select a value that you want to set as a 'Required value'. To set the value as a required value, you must then click in the box labelled 'Required' in the Parameters Tab on the right hand side of the screen (see the centre of the image below). This will then set the value you selected as a required Value.

DataSet Definition of dat1 : <no label=""></no>	<u>? ×</u>
Algorythme Default	<u>N</u> ew <u>E</u> dit <u>Duplicate</u> <u>D</u> elete
Dimension Validation Constraint Complex rule Ec	litor User Parameters External parameters Formulas
Dimension Hequired ↓→ Period : <no label=""> Key ↓ Year : <no label=""> Key</no></no>	Label Code NewValue
LVINewvalue . KNO La	Parameters Refinement
	Keep existing value for empty importation Autonumber
	Validation Rule
	Temporary field 8 (Used in import preview only) size
Global parameters Aggregation before importation Va	lidate Records with All Required Values lidate Records with At Least One Required Value
Import the distinct records	o not test Required Values
Language English	<u> </u>

You would repeat this for all three Values – Value 1, Value 2 and Value 3 in our example – to set all three values as required values.

Then you would use the option 'Validate Records with All Required Values' at the right hand side of the bottom of the screen.

This means that only records with <u>all</u> of the required values (Value 1, Value 2 and Value 3) would pass the Validation test.

Looking again at our example table of data, this would mean that record id numbers 2, 3, 6 and 7 would **fail** the validation test because they did not each have **all** of the required values present. Some have only one of the three required values present, whilst others have only two of the three required values present.

Id	Year	Period	Country code 1	Country code 2	Value 1	Value 2	Value 3
1	1999	01	LU	UK	12	100	56
2	1999	01	LU	FR	2	2	
3	1999	01	LU	DE	2		5
4	1999	01	LU	DZ	3	3	33
5	1999	01	LU	XX	4	4	85
6	1999	01	LU	FI	6	5	
7	1999	01	LU	PO		9	
8	1999	01	LU	TU	7	999	6

Records 1, 4, 5 and 8 each have all 3 of the 3 required values present and would therefore pass the validation test.

The 'Required' check box is undertaking an SQL NULL test on the data values to determine their presence or not, in the record.

[Is the value Null? 'Yes' or 'no'. If 'No', then the value is present in the record].

Those records with all three values Not Null are therefore present and the record passes the test.

It is important to understand that the 'Required' Check box sets up a NULL test, because you don't have to set a specific Null test in the Validation Rule Box. The 'Required' Box makes the Null test.

Enhancing the validation rule

The above is a basic example, the validation rule could be developed further by using some SQL logical condition clauses to enforce that Value 2 must be less than 100 by inserting a '<100' statement into the 'Validation Rule' box (see image below).

Algorithme Default New Edit Duplicate Delete Default for standard importation and Editor importation and exportation D importation and Editor importation and exportation D importation and Editor importation and exportation Dimension Required C code NewValue D code NewValue Period : <no label=""> Key Label P arameters Refinement Required K key is required R equired R equired</no>	🖵 DataSet Definition of New Dataset1 : <no la<="" th=""><th>bel> ? X</th></no>	bel> ? X
Dimension Validation Constraint Complex rule Editor User Parameters External parameters Formulas Dimension Required Image: Code NewValue Image: Code NewValue Period : <no label=""> Key Label Label Label Parameters Refinement Image: NewValue : <no la.<="" td=""> Required Image: Key Required Image: Key Image: Key</no></no>	Algorithme Default Default for standard importation and Editor importation a	New Edit Duplicate Delete and exportation
Autonumber Default Value Validation Rule Temporary field 8 (Used in import preview only) size	Dimension Validation Constraint Complex rule I Dimension Required ↓ Period : <no label=""> Key ∰ Year : <no label=""> Key ∭ NewValue : <no la<="" td=""><td>Editor User Parameters External parameters Formulas Code NewValue Label Parameters Refinement Required Keep existing value for empty importation Autonumber Default Value Validation Rule Temporary field 8 (Used in import preview only) size</td></no></no></no>	Editor User Parameters External parameters Formulas Code NewValue Label Parameters Refinement Required Keep existing value for empty importation Autonumber Default Value Validation Rule Temporary field 8 (Used in import preview only) size
Global parameters Aggregation before importation C Validate Records with All Required Values Validate Records with At Least One Required Value Import the distinct records D o not test Required Values	Global parameters Aggregation before importation Import the distinct records	Validate Records with All Required Values Validate Records with At Least One Required Value Do not test Required Values

You can insert more complex rules

i.e. >12 and <200 = Greater than 12 and less than 200.

It is important to understand that the clause that you specify in the validation rule box in the image above only applies to the selected dimension in the list. If you want to make use complicated SQL that works with more than one dimension, you should use the Complex Rule Tab that is explained later in this chapter. <u>On the</u> <u>Dimension Tab, the validation rules apply only for the selected dimension.</u>

Looking again at the last image, we can see the other two options at the bottom of the screen:

Validate records with at least one required value

This would pass all of the records in our example dataset because all of the records have at least one of the three required values.

Do not test required values

This switches off the required value testing. It might be useful sometimes to temporarily switch off the value testing. You can always switch it back on later.

Having established:

The nature of the test required Which values are required values

The logic of the values i.e. (greater than 12 less than 200)

You then need to save the settings as an Algorithm.

The last step in the process is to then set the Algorithm as the default Import algorithm (see below), so that the algorithm including the validation rules is then applied upon the importation of the data.

21.3. When to make Validation Tests?

The above explains how to set up value tests, but you also have further functionality to determine *when* these test are made.

You have three choices to determine *when* these rules are applied:

You can apply the validation tests when:

importing data into a dataset from a file.

importing data back into a dataset from the Eurotrace editor, after an editing session.

Exporting data out to the editor.

You determine when these are applied, by setting the property of the algorithm that the tests belong to.

21.4. Types of Algorithms

The validation rules that you set up and apply for your dataset are saved as part of an Algorithm.

In addition to validation rules, the algorithm also stores additional data for: Constraints and 'Complex rules'.

You can save many different algorithms for each dataset, but you can only set one as the default for each of the operations described below.

You can set default algorithms for:

Importing data from a file into a dataset Exporting data from a file out to the Eurotrace Editor Importing data back into a dataset from the Eurotrace Editor

Image: Second state Second state Domain Data language DataSet Tools Delta Second state Second state Second state	
DataSet G Derived DataSet V Classification	<u>n Plan</u>
DataSet State New Date New Properties Structure Copy Validation Delete Editor Design Import Export	Definition ③ Views ¥ Errors ♀ History ♀ Import Or ▼ Period : <no label=""> Period : <no label=""> Year : <no label=""> New Dictionary : <no label=""> NewValue : <no label=""></no></no></no></no></no>
Ready	18:19

To set the validation rules for your dataset, choose the 'Dataset' menu, then the 'Dataset' sub menu option and then the 'Validation' sub menu option. You will see the following screen:

DataSet Definition of New Dataset1 : <no la<="" th=""><th>bel> ? 🗙</th></no>	bel> ? 🗙
Algorithme Default Default for standard importation and Editor importation a	New Edit Duplicate Delete nd exportation
Dimension Validation Constraint Complex rule I Dimension Required Image: Period : <no label=""> Key Year : <no label=""> Key Image: No Label> Key Image: No Label> Key Image: No Label> Key</no></no>	Citor User Parameters External parameters Formulas Code NewValue Label Parameters Refinement Required Keep existing value for empty importation Autonumber Default Value Validation Rule Validation Rule Temporary field 8 (Used in import preview only) size
Global parameters Aggregation before importation M Import the distinct records	/alidate Records with All Required Values /alidate Records with At Least One Required Value Do not test Required Values
Language English	<u>O</u> K <u>C</u> ancel

There are eight TABS labelled Dimension, Validation, Constraint, Complex Rule, Editor, User Parameters, External Parameters and Formulas.

All of these Tab screens have a drop down language Select box at the bottom left hand corner that you can use to change the label language.

Above the tabs are the **`algorithm**' controls.

Create a new algorithm and setting it as the default algorithm

Click on the 'New' button.

New algo	
iter the name of the new sript	
m's New standard Importation Al	gorithm
Set as default	
For standard importation	
Summarian and a	
For Editor importation	

Type in the name of the Algorithm and select whether you want the algorithm to be the default algorithm for:

Standard Importation (Loading of datasets) For importing data from the Eurotrace Editor For exporting data to the Eurotrace Editor

Create a new algorithm but NOT setting it as the default algorithm

If you select none of the three options above, the algorithm will still be created and will still appear in the selection list at later stages in the process, but your newly created algorithm will <u>not</u> be set as the default one for the three stages above.

Edit an existing algorithm's title

Select the algorithm from the list then click on the 'Edit' button and change the title as required. The algorithm is saved with the new name when you click on the 'OK' button.

Copy an existing algorithm

This can be useful when you wish to copy an algorithm and edit it. If they are similar – sometimes it is quicker to copy the previously defined algorithm and to then edit it rather than re-define a new one by starting again.

Select the algorithm from the list then click on the 'Duplicate' button.

Delete an existing algorithm

Select the algorithm from the list then click on the 'Delete' button.

For Standard Importation

This sets the algorithm as the default standard importation algorithm.

For Editor Importation

This sets the algorithm as the default importation algorithm that is applied when re-importing data back into the dataset from the Eurotrace Editor Application.

For Export to editor

This sets the algorithm as the default exportation algorithm that is applied when creating export files for use with the Eurotrace Editor.

Important!

For reasons of logic, it is only possible to set one algorithm as the default algorithm for each of the three processes - Standard Importation process, Editor Importation process and Export to the editor program process. If there were more than one – the system would not know which to use as the default!



For this reason the three check boxes in this image act as 'toggles' that switch the algorithm to be the default algorithm, for each of the three tasks.

This means that when you activate a check box, if this function has been activated on another algorithm, the other algorithm will then be automatically deselected as the default and the new algorithm will then take over as the new default algorithm.

Activating any of the three check boxes will therefore de-activate any similarly activated check boxes for that particular function in any of the previously defined algorithms.

This is because by definition you can only have one algorithm applied as the default one for each of the three processes.

So far this chapter has introduced:

The setting of 'required' values The testing of the presence of these required values The creation and management of Algorithms The setting of when these algorithms are applied as the defaults

The remainder of the Validation Rules chapter will now consider the remaining validation functionality, including constraints and Complex Rules.

Remember, all of the tests that you define and set up:

Validation rules SQL tests 173 Refinements Complex rules Constraints

Are stored collectively as an algorithm. You choose the appropriate algorithm and set this as the default algorithm for the process that you wish to undertake.

21.5. Dimension Tab

The dimension TAB screen looks like this.

📮 DataSet Definition of New Dataset1 : <no lab<="" th=""><th>el> ?X</th></no>	el> ?X		
Algorithme Default New Edit Duplicate Delete Default for standard importation and Editor importation and exportation and exportation and exportation and exportation			
Dimension Validation Constraint Complex rule E Dimension Required → Period : <no label=""> Key m Year : <no label=""> Key NewValue : <no la<="" td=""><td>Code NewValue Label Parameters Parameters Refinement Required Keep existing value for empty importation Autonumber Default Value Validation Rule Temporary field 8 (Used in import preview only) size</td></no></no></no>	Code NewValue Label Parameters Parameters Refinement Required Keep existing value for empty importation Autonumber Default Value Validation Rule Temporary field 8 (Used in import preview only) size		
Global parameters ☐ Aggregation before importation ☐ Validate Records with All Required Values ☐ Validate Records with At Least One Required Value ☐ Import the distinct records ☐ Do not test Required Values Language English ☐ <u>D</u> K <u>Cancel</u>			

The right hand side of the screen will dynamically change as you select different elements of your dimension in the left hand side of the screen.

On the right hand side there are code and label fields that correspond to the code and label fields for the selected elements of the dimension.

There are also two tabs labelled 'Parameters' and 'Refinement'.

Below the two tabs are three radio field selection boxes:

'Validate records with all required values'

This checks for the presence of all of the required values in a dataset. As long as all of these values are present, the record will pass the test.

Example.

A dataset has been defined with five required values. If all five values are present in the record, the record will pass the test. If one or more of the five values are missing from the record, the record will fail the test.

Validate records with at least one required value

This checks for the presence of all of the required values in a dataset. As long as one of these required values is present in the record, the record will pass the test.

Example.

A dataset has been defined with five required values. If four or less values are missing in the record, the record will still pass the test because at least one of the required values is present. If none of the five required values are present in the record, the record will fail the test because there is not at least one of the required values present in the record.

Do not test required values

This switches off the required value testing. This might be useful sometimes. You can always switch it back on later.

21.6. Dimension Parameters - Tab Settings

Click on a dimension or a value in the left hand side of the screen and the appearance of the Parameters and Refinement tabs on the right hand side of the screen will change accordingly.

We will now look at the settings for the **parameters tab** first, for each type of dimension or value, and then we will consider the refinement tab settings for each type afterwards.

The <u>Parameter tabs</u> for each type are as follows:

Coded dimension parameters

The parameters tab for coded dimensions is blank because coded dimensions have no parameters to change.

Independent dimension parameters

The parameters tab for independent dimensions looks like this:

📮 DataSet Definition of Declarations Cor	nplete : Customs Declarations Complete ? 🗙
Algorithme Default	▼ <u>N</u> ew <u>E</u> dit <u>Duplicate</u> <u>D</u> elete
Default for standard importation and Editor impo	tation and exportation
Dimension Validation Constraint Complex Dimension Required Image: Year : <no label=""> Key Period : <no label=""> Key Period : <no label=""> Key D00071 : Customs Key D00071 : Customs Key D00072 : DecNb Key D00073 : DecNb Key D00011 : Exporter D00021 : Exporter Image: D00021 : Exporter D00011 : Destinatio Image: D00021 : Exporter D00021 : Exporter Image: D00021 : Exporter D00021 : Destinatio Image: D00021 : Destinatio D00021 : Exporter Image: D00021 : Exporter D000215 : Transport Image: D00021 : Nature of Image: D00023 : TNV Global parameters Aggregation before importation</no></no></no>	crule Editor User Parameters External parameters Formulas Code D00074 Label Punkt Parameters Refinement Validation Rule Validate Records with All Required Values Validate Records with All Required Values
Import the distinct records	O Do not test Required Values
Language English	<u> </u>

You can enter a validation rule using Microsoft Access format SQL in the Parameters Tab's validation rule box.

Standard new value parameters

The parameters tab for Standard new values looks like this:

📙 DataSet Definition of Declarations Com	plete : Customs Declarations Complete
Algorithme Default	▼ <u>N</u> ew <u>E</u> dit D <u>u</u> plicate <u>D</u> elete
Default for standard importation and Editor importa	ation and exportation
Dimension Validation Constraint Complex n Dimension Required Importation Required Import the distinct records Required	anor and exportation ule Editor User Parameters External parameters Formulas Image: Code D0046 Label Statistical Value Parameters Refinement Required Keep existing value for empty importation Autonumber Default Value Validation Rule Temporary field Temporary field 8 (Used in import preview only) visize Validate Records with All Required Values Validate Records with At Least One Required Value D on t test Required Values 1 1
Language English	<u> </u>

'Required' flags the value as a required value as discussed in the introduction of this chapter.

'Keep existing value for empty importation' adds extra functionality that relates to the concept that any information is better than no information.

	Value 1	Value 2	Value 3
Original record	А	В	С
Record that replaces the original record	D		E

If you check out a record for editing to the Eurotrace Editor and you change the values from A, B, C, to D, empty field, E (as described in the table above), you might wish when re-importing the record back into the database to replace value A with the new revised value D, B with an empty field and C with the new revised value E.

In this case you would just re-import the data and the values would change as described.

However, its quite likely that rather than replace value B with an empty field, you would prefer to keep the old value B – because its often argued that it is better to have some data rather than none at all.

In this case to change the updated data, but to keep the old data where no new values are available, you would use the **'Keep existing value for empty importation'** option by clicking on the check box.

This feature is useful because it can stop you loosing data.

'Temporary field size' assign the size of the field used in the calculation of the conversion preview in the importation Wizard.

21.7. The default value box

The default value box is used to assign a default value in cases where there is currently no value existing.

	Value 1	Value 2	Value 3
Original record 1	A	В	
Original record 2	D		E

Default value for Value 1 = TDefault value for Value 2 = JDefault value for Value 3 = H

	Value 1	Value 2	Value 3
Original record 1	A	В	Н
Original record 2	D	J	E

Value 3 would change for record 1 because no value existed. It would therefore take the default value specified for Value 3, which is H.

Value 2 would change for record 2 because no value existed. It would therefore become the default value specified for Value 2, which is J.

Value 1 would not change for either record because values previously existed in both records.

The default values are therefore only taken when no values exist. If a value already exists, the default value is ignored. This feature is really useful to fill in 'holes' in datasets.

For example:

Imagine you know that the average number of employees in an organization is 20, and you had a dataset where this data was only supplied by 80% of the people who were surveyed. Providing your methodology considered the use of estimates acceptable, you could use this function to enter the value 20 as the default value, for all the records where the value for the number of employees was missing. Filling 'holes' with known average values as a default can be a useful method of completing datasets, as long as the average figures are truly representative.

21.8. Metadata Parameters

The parameters tab for metadata values looks like this:

📙 DataSet Definition of Declarations Complete	: Customs Declarations Complete
Algorithme Default Default for standard importation and Editor importation and	New Edit Duplicate Delete
Dimension Validation Constraint Complex rule E Dimension Required • Imposed Development • • Imposed Development	ditor User Parameters External parameters Formulas Code D00215
Global parameters ☐ Aggregation before importation ⓒ \v ☑ Import the distinct records ○ □	'alidate Records with All Required Values (alidate Records with At Least One Required Value)o not test Required Values
Language English	<u> </u>

The controls are the same as previously described. The 'Change' button calls the appropriate dictionary.

To change the default value click on the button marked change. A window will display with the contents of the dictionary associated to the meta value.

The value that is selected will be ticked in red. Select the value you need and click on the 'OK' button.

Dimension : New Dictionary3 : Select a Dictionnary Constant Code	? ×
⊡ 😕 1 : Product 1	
2 : Product 2	
3: Product 3	
💋 4 : Product 4	
5: Product 5	
	1
Clear OK	Cancel

To clear the default value and have no value click on the 'Change' button and then in the dictionary window click on the 'Clear' button to make none of the values selected.

21.9. Grouped dimension parameters

Grouped dimensions don't display in the Validation window. There are no parameters to set.

21.10. Year parameters

The parameters tab for the Year dictionary is blank because the Year dictionary does not have any parameters to be set.

21.11. Period parameters

The parameters tab for the period dictionary is blank because the period dictionary does not have any parameters to be set. The above completes the description of the **parameter tab** settings of the dataset validation's dimension tab.

We will now consider the **<u>refinement tab</u>** settings, for each type of dimension or value.

21.12. Dimension Refinement - Tab Settings

This section considers the refinement tab settings for each type.

21.13. What is a Refinement?

A Refinement is a way of transcoding one code in a record to another code in a dictionary based upon the relationship that you set up when you define a 'Relation'.

For example you might have a dataset with a list of countries in a format that uses a code system that has been defined and used within your organisation.

The code for France could be 008.

You might wish to use a different internationally recognized nomenclature to record your countries, so that they are consistent with the codes used by an international standard such as the two digit ISO 3166 standard. By using a refinement you could link the codes in the data to a relation, where the relation specifies the transcoding to use, so that the records are recoded with the ISO standard FR for example, instead of 008.

This is a very powerful and versatile feature.

Although it requires you to establish a relation first and then to set a refinement to link to it, once you have a few different lists of relations to choose from you can transcode your data very efficiently so that it is suitable for your purposes. The advantage is that you can still keep your original codes.

21.14. Coded dimension refinements

The refinements tab for coded dimensions looks like this:

📮 DataSet Definition of Declarations Comp	lete : Customs Declarations Complete
Algorithme Default Default for standard importation and Editor importation	New Edit Duplicate Delete tion and exportation
Dimension Validation Constraint Complex ru Dimension Required Image: Double of the structure of the s	Ide Editor User Parameters External parameters Formulas Image: Code PartCountry Label Partner Country Parameters Refinement Image: Validate refinement Image: Validate refinement Validate Records with All Required Values Image: Validate Records with At Least One Required Value Image: Do not test Required Values
Language English	<u>D</u> K <u>C</u> ancel

Click on the '**Validate Refinement'** button to activate the Relation drop down list box.
You must also select a relation from the drop down list box called 'Relation'.

For further information on defining a relation see Chapter 11 'Managing Classification Plans and dictionaries.'

21.15. Independent dimension refinements

The refinements tab for independent dimensions is blank because the independent dimensions do not require any refinement controls to be set.

21.16. Standard new value refinements

The refinements tab for standard new values is blank because the standard new values do not require any refinement controls to be set.

21.17. Metadata refinements

The refinements tab for metadata looks like this:

📮 DataSet Definition of Declarations Complete : Customs Declarations Complete
Algorithme Default The Lett Duplicate Delete
Default for standard importation and Editor importation and exportation Dimension Validation Constraint Complex rule Editor User Parameters External parameters Formulas Dimension Required Image: Code Code D00021 Period <no labeb<="" td=""> Key Label Exporter Register Parameters Refinement Validate refinement Validate refinement D00071: Exporter Validate refinement Validate refinement D00073: DecNb Key Validate refinement Validate refinement D00071: Exporter Validate refinement Validate refinement Validate refinement D00071: Exporter Validate refinement Validate refinement Validate refinement D00071: Exporter Validate refinement Validate refinement Validate refinement D00071: Import and the distinct records Validate Records with All Required Values Validate Records with All Required Value Validate Records with At Least One Required Value Validate Records with At Least One Required Value</no>
Language English <u>O</u> K <u>C</u> ancel

You may activate the refinement and select the appropriate Relation.

21.18. Grouped dimension refinements

Grouped dimensions don't display in the Validation window. There are no parameters to set.

21.19. Year and Period refinements

The refinements tab for the Year dimension is blank because the year dimension does not require any refinement controls to be set.

21.20. Other dimensions refinements

The refinements tab for the Period dictionary looks like this:



You may activate the refinement and select the appropriate Relation. This completes the description of the Refinement Tab.

21.21. The Validation Tab

The validation tab will be displayed differently according to the selected DBMS.

Algorithme Default New Edit Duplicate Delete Default for standard importation and Editor importation and exportation Set Multiple Action SQL Code Label Action SQL Code UPDATE [Import].[Period]= Right(0 & [Import].[Period].2) Set March New Rule Actio Actio SET [Import].[Period]= Right(0 & [Import].[Period].2) Set Sa Pa Enabled Actio Actio Code Delete Rule Actio Actio Code Delete Rule Actio Actio Code Delete SQL Pay Delete Actio Actio Code Delete SQL Pay Actio Code Code Delete SQL Pay Actio Code Code Delete SQL Pay Actio Code Code Delete SQL Actio Code Code Complex telesched Ones in Error Delete SQL Actio Code Validation : Test Records and Suppress selected Ones (IPDATE and WHERE Clause Only) Complex telesched Action on test Records and Suppress selected Ones (IPDATE and WHERE Clause Only) Complete SQL Executed before Code Validation	📙 DataSet Definition of Declarations Code : Cus	toms Declarations code
Image: Polytochemical Sector Secto	DataSet Definition of Declarations Code : Cus Algorithme Default Default for standard importation and Editor importatimportation and Editore importation and Editor importation and Edit	New Edit Duplicate Delete Ind exportation Edit Duplicate Delete
	Delete Move <u>Next</u> Actio Delete 31 32 Actio SEZ Actio	 Validation : Test Records and Put selected Ones in Error (UPDATE and WHERE Clause Only) Deletion : Test Records and Suppress selected Ones (FROM and WHERE Clause Only) Action : Perform a standard action query (Update/Delete) (Complete SQL Executed before Code Validation) Invariant: Test Records and Stop Importation Process (UPDATE and WHERE Clause Only) Warning: Test Records. Put selected Ones in Error and Prompt User (UPDATE and WHERE Clause Only) Transcodification



The left hand window displays the list of rules that are stored with the dataset definition. It also displays the order in which the rules will be executed (with respect to the type of rule).

N.B.: If you are currently viewing a validation rule and there is text in SQL code text box, a command button 'Test SQL' is available to parse your SQL code.

N.B.: If you are working on a non empty dataset, a command 'Run Algo' is available. It enables you to run all validation rules of an Algorithm against the data already in your dataset.

You select a rule by clicking on it. All selected rules are highlighted. When a rule has been selected and is highlighted the details of the rule are displayed in the right hand window labelled 'SQL Code'.

Here you may add a new code for a new rule or edit previously defined codes for previously defined rules.

Below the SQL code window are four radio field selection buttons. Select the option that best suits your requirements for the rule type. Each of these four options corresponds to a specific type of SQL clause.

The icon associated with the rule changes appearance to aid identification of the type of rule.

21.23. Adding a new Validation Rule

In the **'Validation Tab'** window and from the right click shortcut menu select **'New Rule'.** The new Rule will appear in left side window.

📙 DataSet Definition of Declaration	ons Code : Customs Declarations code ? 🔀
Algorithme Default	▼ New Edit Duplicate Delete
Default for standard importation and Edi	itor importation and exportation
Dimension Validation Constraint	Complex rule Editor User Parameters External parameters Formulas
	SQL Code
Label A	Action
Set Month2 digits A	Actio
Set Partner Import A	Actio
Set Partner Export A	Actio
Del Posolts A	Actio
A Set Som A	Actio
Delete TNV A	Actio
Delete 76 and 80 A	Actio
J Delete 31 32 A	Actio
A SEZ A	Actio Validation : Test Records and Put selected Ones in Error (UPDATE and WHERE Clause Only)
New Rule	alloa Deletion : Test Records and Suppress selected Ones
<u>R</u> ename	(FROM and WHERE Clause Only)
✓ Enabled	Action : Perform a standard action query (Update/Delete)
<u>D</u> elete Rule	Complete SQL Executed before Code Validation)
Move Previous	Invariant: Test Records and Stop Importation Process (UDDATE and V/UEDE Clause Only)
Move Next	
	Warning: Lest Records. Put selected Unes in Error and Prompt User (UPDATE and WHERE Clause Only)
	C Transcodification
Language English	▼ Test SQL <u>O</u> K <u>C</u> ancel

By default, the new Validation Rule will be named 'New Rule', to change the name, choose 'Rename' from the shortcut menu.

You should set the properties of the new Rule by choosing from the four options on the bottom right hand corner of the screen:

The **'Validation'** option corresponds to the UPDATE and WHERE clause in the Import processes (import from file and import from editor). Use this type to test records and put only the selected ones in error. Validation Rules are executed after the Codes and double records are checked.

Example: If you want to import data for international flow by country you could check if the country of origin and destination are the same, by using this example.

UPDATE [Import] WHERE [Import].[Origin Country] = [Import].[Destination Country]

The **'Deletion'** option corresponds to the FROM and WHERE clause in the Import processes (import from file and import from editor). Use this to test records and suppress the selected ones. Deletion Rules are executed after data are imported.

Example FROM [Import] WHERE [Import].[Origin Country] = [Import].[Destination Country]

The '**Action'** option corresponds to the WHERE clause in the Import processes (import from file and import from editor). Use this type to perform any executable SQL you want. When referring to an import table, be sure to use **[Import]** for the table name and the Dimension name of the Dataset for the field names. By using Action queries you can control or modify the imported data, because of this, Actions will be executed before any Codes are checked on import.

The '**Invariant**' option corresponds to the UPDATE and WHERE clause in the Import processes (import from file and import from editor). Use this type to test records and stop the importation process if there is an error. Invariant Rules are executed at the beginning of the validations. See the '**Validation**' exemple to write the SQL request.

The '**Warning**' option corresponds to the UPDATE and WHERE clause in the Import processes (import from file and import from editor). Use this type to test records and put only the selected ones in error; then prompt the user of the error. Warning Rules are executed after the Codes and double records are checked. See the **'Validation**' exemple to write the SQL request.

Type your validation code in the SQL window on the right hand side of the screen.

TIP! Please use the SQL syntax used within Microsoft Jet Engine (MS Access) and pay attention to the use of brackets, constants, operators and expressions.

21.24. Deleting a Validation Rule

To delete a Validation Rule, select the Rule and choose from the shortcut menu 'Delete Rule' (See Image above).

21.25. Changing the Order of Validation Rules

The order of the validation rules in the window is also the sequence in which they will be executed (with respect to the type of rule). To move a validation rule up one position, select the rule, then choose **'Move Previous'** from the shortcut menu.

To move the validation rule one position down the list select the rule, then choose **'Move Next'** from the shortcut menu.

🖵 DataSet Definition of Declarations Code : Customs Declarations code 🛛 🤶 🗙	
Algorithme Default Default for standard importation and Editor importation	▼ <u>N</u> ew <u>E</u> dit <u>Duplicate</u> <u>Delete</u> on and exportation
Dimension Validation Constraint Complex rule Label Action Set Month2 digits Actio Set Partner Import Actio Set Partner Export Actio Delete New Rule Delete Rename Delete Delete Delete Delete SEZ Move Previous New R Move Next	e Editor User Parameters External parameters Formulas SQL Code DELETE [Import].* FROM [Import] INNER JOIN [Rel_basic previous] ON [Import].[D00372]=[Rel_basic previous].[Code] AND [Import].[D00370]=[Rel_basic previous].[TRS_Basic procedure]] WHERE WHERE [([Import].[D00373] <>'1'] OR [[Import].[D00373] <>'1'] OR [[Import].[D00373] <>'2'] OR [[Import].[D00373] <>'2'] </td
Language English	Test SQL <u>D</u> K <u>C</u> ancel

21.26. Validation Tab under ORACLE and SQL SERVER:

DataSet Definition of DAT01 : <1	lo Label>	
Scenarios/Rules Scenarios Name Default Default Default X Rules Label Action E New Rule SQL E	Type of rule PUT IN ERROR: If SQL condition is met then corresponding [IMPORT] records are put in error DELETION: If SQL condition is met then corresponding [IMPORT] records are deleted WARNING: If SQL condition is met then corresponding [IMPORT] records Flag are put in warning SQL: Execute an SQL rule. SQL rules have higher priority to PUT IN ERROR & DELETION rules T-SQL : Perform a stored procedure (Only the body of the procedure) Execute Combo1 Transcodification	Options Add SQL word Select V Add Object Add fonction Sum V Replace Import
Language English	Test Rule	Save and close Cancel

By default, the new Validation Rule will be named 'New Rule', to change the name, choose 'Rename' from the shortcut menu .

To delete a Validation Rule, select the Rule and choose from the shortcut menu **'Delete Rule'**.

To test the code of a Rule, select it and click on the **Test Rule** button.

User should set the properties of the new Rule by choosing from the seven options on the bottom right hand corner of the screen (PL SQL is only available with Oracle, T-SQL with SQL Server).

Under the Options area (on the right side of the Tab), Five buttons will provide some help to the users in writing the queries:

Add SQL word:

- This button adds the word of the combo box in the text defining the rule. The common words used in SQL are available in this combo box: Select, From, Where, Group by...

Add function:

- This button adds the word of the combo box in the text defining the rule. The common aggregation functions used in SQL are available in this combo box: Sum, Avg, Count,...

Replace:

- This button allows replacing one word by another word in all the text. Add Object:

- This button opens a new interface in which an object can be selected. Import:

- This button enables the importation of an existing validation rule

For the type "Eurotrace Object", this interface allows to select the import table, a dataset or a dictionary as well as their fields. All the selected objects are inserted in the text defining the rule. For the type "All object", this interface allows to select all accessible tables as well as their fields.



Server and Access syntaxes for

the validation rules

With an Access domain, the rule must be written in SQL Access, with an Oracle domain, the rule must be written in SQL Oracle and with SQL Server, the rule must be written in TSQL. For simple rules, there are not so many differences between Oracle and SQL Server. In SQL server brackets [] are not mandatory.

Sample of difference

	Access	Oracle / SQL Server
Using SQL	WHERE	WHERE
functions	Left([Import].[Declarant],2)='FR'	SubStr([Import].[Declarant],1,2)='FR'
Joining tables	FROM [Import] INNER JOIN	FROM [Import], Trans WHERE
-	Trans ON	[Import].[Declar]=Trans.Code
	[Import].[Declart]=Trans.Code	

The syntax used for the rules is not always the same between Access And Oracle / SQL server to use the object.

When referring to an import table the syntax to be use is [Import]

The field of the import table are written [Field1], [Field2],...

The import table and these fields have to be contained in between brackets [].

When referring to other objects, the syntax is different.

|--|

Identical		
Utilisation of the	[Import]	[lmport]
import table		
Utilisation of a	[Import].[Field1]	[Import].[Field1]
field of the import		
table		
Not identical		
Utilisation of a	[Dat_{NameDataset}]	{NameDomain}_DATA_{NameDataset
dataset		}
Utilisation of a	[Dat_{NameDataset}].Fie	{NameDomain}_DATA_{NameDataset
field in a dataset ld1		}.Field1
Utilisation of a	[Dic_{NameDictionary}]	{NameDomain}_DIC_{NameDictionar
dictionary		y}
Utilisation of a	[Dic_{ NameDictionary	{NameDomain}_DIC_{NameDictionar
field in a dictionary }].Code		y}.Code

For Oracle and SQL Server, the real name of the table is used. But with Access, the tables are not in the same file, and it is not possible to use the real name of the table (All the tables have the same name)

PL-SQL / T-SQL

Use this type to perform any executable PL-SQL / T-SQL you want. When referring to an import table be sure to use **[Import]** for the table name and the Dimension name of the Dataset for the field names. The PL-SQL / T-SQL PL-SQL must be written without declarations only the body of the code. The declarations are created automatically by Eurotrace.

Oracle and SQL Server Syntaxes for validation rules:

Under Oracle / SQL server, the syntax to be used for validation rules is not the same than the ACCESS ones. The same type of validation (Validation, deletion and action) are available, but the rules to be applies to the syntax is as follow:

The import table have to be written **in brackets []. (for ex: [Import])**

The same syntax must be applied for the field of the import table (for ex: [name of the filed1], [name of the filed2], etc..)

All the other tables and fields must be written without brackets.

21.28. The Constraint TAB

The constraint Tab looks like this:

DataSet Definition of Declarations Code : Customs Declarations code		
Algorithme Default New Edit Duplicate Delete Default for standard importation and Editor importation and exportation		
Dimension Validation Constraint Complex rule Editor User Parameters External parameters Formulas		
Constraint Mode Element Dictionary Dimension New Constraint Rename Enabled Delete Delete		
All codes combinaison must exist into Constraint Table Code combinaison must not exist into Constraint Table		
Language English Cancel		

21.29. What is a constraint?

A constraint is a special type of rule that makes use of constraint tables.

21.30. What is a constraint table?

A constraint table is a table with combinations of codes combined into one table from a number of separate sources such as dictionaries.

You can test data to see whether the combinations of codes in a single record exist within the pre-defined constraint table.

For example, you might have a constraint table defined as follows:

3 Original Dictionaries

Dictionary 1		
Code1	Label	
AAA		
BBB		
CCC		
DDD		
EEE		
FFF		

Dictiona	ry 2
Code2	Label
AA01	
BB01	
CC01	
DD01	
EE01	
FF01	

Dictionary 3		
Code3	Label	
Α		
В		
С		
D		
E		
F		

CONS	CONSTRAINT TABLE			
Cod e1	Co de 2	Co de 3		
AAA	AA 01	А		
BBB	BB 01	В		
ССС	CC 01	С		
DD D	DD 01	D		
EEE	EE 01	E		
FFF D	FF0 1	F		

The constraint table can then be used to determine valid acceptable <u>code</u> <u>combinations.</u>

You can do this in two ways.

You can say if the combination of codes **does** appear in the constraint table then the record is valid. With this logic, you are listing the valid code combinations in the constraint table. Only records that have these valid code combinations will pass the validation tests.

Or

You can say if the combination of codes **<u>does not</u>** appear in the constraint table then the record is valid. With this logic you are listing the invalid code

combinations in the constraint table. Only records that do not have the code combinations listed will pass the validation tests.

Why bother to allow both?

Sometimes it's quicker and easier to list the invalid possibilities than it is to list the valid ones.

Dictionaries therefore validate individual codes in individual record fields, but constraint tables can then test the combinations of codes in records for valid code combinations.

21.31. Example of a constraint table

If we take the constraint table defined on the previous page:

CONSTRAINT TABLE				
Code1	ode1 Code2 Code3			
AAA	AA01	А		
BBB	BB01	В		
CCC	CC01	С		
DDD	DD01	D		
EEE	EE01	E		
FFF	FF01	F		

And apply a dataset that has the following code combinations:

ID	Code1 Code2		Code3	Value
1	AAA	BB01	А	32
2	BBB	BB01	E	55
3	CCC	DD01	С	67
4	FFF	DD01	D	32
5	EEE	EE01	E	54
6	FFF	FF01	E	2

If you apply the constraint table and say that all code combinations must be in the constraint table, then only record ID 5 will be accepted as valid, since this is the only record with all of the values in the derived constraint table.

If you select the option that all code combinations must **NOT** be in constraint table, all the records will be accepted EXCEPT record 5, because all of the other records are not in the constraint table whereas record 5 is within the constraint table.

21.32. When are constraint tables used?

Constraint tables are useful to filter out unusual data.

The constraint table could feature highly unlikely code combinations that could indicate that the data have been coded incorrectly. These records could then be filtered out of the dataset for further investigation and manual correction. This would therefore help to maintain the quality of the dataset and of the statistics produced from the dataset.

21.33. Forbidden / Impossible data example

Constraint tables can also be used to filter out or detect 'interesting' transactions or even forbidden transactions.

These are detected by identifying the corresponding code combinations, and implementing them within a constraint table.

N.B. It is not unusual to have codes that in isolation are themselves valid codes, but when taken in context and association with other codes, become invalid. The code combinations can identify impossible or forbidden data.

For example the country codes for Italy and Canada are both valid country codes when tested in isolation, but in combination they would be illegal in the context of Intra EU data, EU-African data – EU Mediterranean data, etc.

The data must be in error, because whilst these countries are valid as individual countries, in this particular context they are not valid in combination.

📙 DataSet Definition of Declaration	s Code : Customs Declarations code 🛛 🔋 🗙							
Algorithme Default	▼ <u>N</u> ew <u>E</u> dit Duplicate <u>D</u> elete							
Default for standard importation and Editor importation and exportation								
Dimension Validation Constraint Complex rule Editor User Parameters External parameters Formulas								
Constraint Mode	Element Dictionary Dimension							
	 All codes combinaison must exist into Constraint Table 							
	C Code combinaison must not exist into Constraint Table							
Language English	<u> </u>							

21.34. Add, rename, enable and delete constraints

The left hand window lists the constraints and has a right click short cut menu. Use these menu options to add, rename, enable and delete constraints.



When you add a new constraint, you are provided with a list of existing Relations that you have defined.

Select the relation, you wish to use from the list. The details of the relation are displayed in the right hand section of the screen.

DataSet Definition of Declarations Code : Customs Declarations code P Algorithme Default Default Default Default for standard importation and Editor importation							
Dimension Validation Constraint Con Constraint Mode New Constraint Rename Senabled Delete	mplex rule Editor User Parameters External parameters Formulas Element Dictionary Dimension CustomUnit CustomUnit D00071 151 Country D00161 171 Country D00171 Basic Proced Basic Procedure D00372						
	All codes combinaison must exist into Constraint Table Code combinaison must not exist into Constraint Table						
Language English							

You may select any linked dimensions that you want - providing they are part of the relation definition - by right clicking on the details in the right menu window and then selecting from the list. If you don't have a list displayed it is because you have not defined the linked dimensions in the relation.

Select a Linked Dimension	<u>? ×</u>
OK	Cancel

You then have to choose at the bottom of the screen between 'All Code combinations must exist in the constraint table' or 'Code combinations must not exist in the constraint table'.

This determines whether the constraint table lists the valid code combinations or whether the constraint table lists the code combinations that are NOT valid.

The right hand window lists the associated elements, dictionaries and dimensions for the selected constraint in the left hand window.

This completes the description of the Constraints Tab.

21.35. Use case for Constrain

For example, if user wants to ensure that a **product A** has been (or not) **imported** from a **country B**, using the **mode of transport C**.

The constraint will associate four dictionaries, the flow dictionary, the Product dictionary, the country dictionary and the Mode of Transport dictionary.

Let's take the following example:

Flow:	I (Imports)
Product:	21050010 (Ice Cream)
Country:	IS (Iceland)
Mode of Transport:	1 (Air)

From the Classification plan, the constraint will be build from one of the above mentioned dictionary (for ex, the Product):

1	Edit Relation								
ſ	All codes (Flat Mode) All Codes (Tree mode) Missing Codes Errors								
	HS	Label HS	Country	Label Country	Flow	Label Flow	TRSPMOD	Label TRSPMO	
	21050010	lce cream.	IS	ICELAND	Ι	IMPORTS	5	MAIL	
Ē	English		▼ Gener	rate	Clear	(Apolu		Cance	
1	English	_	i Gene	ate	Liear	Арріу	100		я —

This constraint will be available for use when defining the validation rules, under the Constraint tab:

Dimension Validation Constraint Com	plex rule Edi	tor User Parameters External parameters Formulas
Constraint Mode	Element	Dictionary Dimension
		🕆 Select a Constraint Relation 🛛 🕐 🔀
		 constraint : <no label=""></no> ICECREAM : ICECREAM S ICECREAM : ICECREAM S HS (HS) S Country (Country) Flow (Flow) TRSPMOD (TRSPMOD)
	C All codes	
		OK Cancel

The dialog will contain all the existing constraint that can be use for this dataset (all the dictionaries used in the constraint must be related to a dimension) 196

DataSet Definition of Copy of Cl	JSTOMSDATA : C	ustoms Declara	tions Data	? 🗙				
Algorithme Default	-	<u>N</u> ew <u>E</u> d	it D <u>u</u> plicate	<u>D</u> elete				
Default for Editor importation and exportation	'n							
Dimension Validation Constraint Complex rule Editor User Parameters External parameters Formulas								
Constraint Mode	Element	Dictionary	Dimension					
New Constraint Incl	W HS	HS	COMMODITY					
	S Country	Country	NatTrspMod					
	S Flow	Flow	Flow					
	👒 TRSPMOD	TRSPMOD	TRSPMOD					
	 All codes combine 	naison must exist into	Constraint Table					
	C Code combinais	on must not exist into	Constraint Table					
Language English 💌	[<u>0</u> K	Cancel				

Once the constraint will have been selected, the dialog will be display as follow:

As mentioned above, user will have to select the type of constraint (Inclusive or exclusive). This will define the way; the constraint will be use during the validation.

The first option (**Inclusive**), will check that, in our example, all the Imports must concern Ice cream which must have been Imported from Iceland and by Air. If, in the data file, this is not the case, then the data will be rejected and send to the error table.

Warning: The inclusive mode, in this case is very strict as we are using four dictionaries. The Inclusive mode clearly state that, "All codes combination must exist in the constraint table".

The second option will operate the opposite, if some records are having the association of codes defined in the constraint; it will be rejected (send to the error table).

Usualy, a constraint is use in exclusive mode, so the constraint define only what is not expected in the data.

21.36. The Complex Rule Tab (Only available under MS ACCESS)

What is a complex Rule?

Many forms of validation consider the properties of individual components of a dataset in isolation. They measure or test a specific value. You could describe them as relatively simple tests. Complex rules are tests that can be applied to a variety of values and conditions.

They take the form of conditional tests for a variety of parameters and if the conditions are met then they instruct the automatic action of various activities.

For example:

If the origin country code is for Spain and the destination country code is for Tunisia, and the product code represents XYZ, and the value is greater than W, and the date is between March and October, then do action a) followed by action b) and replace value F with Value D and then multiply column 1 and 2 to provide a new value in field Z.

They need not be quite so complicated – but they are capable of establishing very powerful automatic data processing – which can be triggered automatically by a given set of conditions being met.

Note: When the storage of the database is done under ORACLE or SQL Server, the Complex rule tab is not available as such. The order of the rules execution will be defined under the Validation tab.

When would you use one?

There are many potential uses for complex rules.

You could multiply the monetary value field of a record by an exchange rate value to automatically determine the monetary value in a different currency. You could add default average values to records, where one value field was empty, but not for records where more than one value field was empty.

You could filter out customs declarations between pairs of countries based upon specific types of product, etc.

The complex rules are defined using Microsoft Jet Engine compatible SQL.

The complex rule tab looks like this:

DataSet Definition of New Dataset1 : <no label=""></no>							
Algorithme Default	<u>N</u> ew <u>Edit</u> <u>Duplicate</u> <u>D</u> elete						
Default for standard importation and Editor importati	on and exportation						
Dimension Validation Constraint Complex rul Label Action Move Rule Actio Pelete Rule Move Previous Move Next Nove Next	 Editor User Parameters External parameters Formulas Execute Before rule validation SQL Code UPDATE (Import) WHERE (Year)>2004 Action Condition Synchro 						
Language English	<u> </u>						

The left hand window lists the Complex rules and has an associated right click short cut menu.

21.37. Add, rename, enable and delete complex rules

Use these menu options to add, rename, enable, delete and move the complex rules. The right hand window contains a data entry box for entering the complex rule logic using Structured Query Language notation (SQL).

Above the SQL box is a drop down list with the options that determine *when* the rule is executed. These options are:

📮 DataSet Definition of New Dataset1 : <no label=""></no>	×						
Algorithme Default New Edit Duplicate Delete Default for standard importation and Editor importation and exportation							
Dimension Validation Constraint Complex rule Editor User Parameters External parameters Formulas Label Action Execute Before rule validation <td <t<="" <td="" td=""><td></td></td>	<td></td>						
Language English Cancel							

'Before rule validation' – Executes the Complex rule before the validations.

'Before check dimension' – Executes the Complex rule before the dimensions are checked.

'Before action rule' - Executes the Complex rule before any action queries.

'Before importation' - Executes the Complex rule before any data are imported.

'After importation' - Executes the Complex rule after the data have been imported.

Below the SQL window are two radio field selection boxes. Select one of these.

The box labelled 'Action' will be implemented shortly.

The box labelled 'Condition' will be implemented shortly.

Further controls relate to conditional Rules:

These include the Time in months box *that is used for setting the time in months* and two radio field boxes.

The box marked after the **'First record'** is selected when you wish the Complex rule to start with the second record in the file (useful if the first record contains header information and is to be ignored).

The box labelled after the 'Last record' is used when you wish to execute the complex rule after the last record (i.e. upon the end of the file).

The last option is the **'Synchro'** check box. This works with Multi-files.

This completes the description of the complex rule Tab.

21.38. The Editor TAB

The Editor Tab is used to define SQL operations that can be executed within the Eurotrace Editor application. These rules are exported with the .ETC file so that the Editor will undertake them when the users use the editor program.

The Editor Tab page looks like this:

📙 DataSet De	finition of New Dataset1 :	<no label=""></no>		? X
Algorithme	Default	<u>▼</u> <u>N</u> ew	<u>E</u> dit D <u>u</u> plicate	Delete
Default for stand	dard importation and Editor imp	ortation and exportation		
Dimension V	alidation Constraint Compl	ex rule Editor User Parame	eters External parameters Fo	rmulas
Label	Action	UPDATE [Import] WHERI	E [Year]>2004	
New Rul	New Rule			
	<u>R</u> ename			
	✓ Enabled Delete Rule			
	Move Previous			
	Move <u>N</u> ext	J		
		 Action New 		
		C Action Dimension	Vear : <no label=""></no>	
		C Action After	www.alue : <no lab<="" td=""><td></td></no>	
- Parameter fo	or importatation		J	
	when a second a first when it is a set of it.		Advanced paramet	er
Je Uniock	, the record after the importatio	n		
Language	English 💌		<u>0</u> K	<u>C</u> ancel

In the left hand window is the list of rules that can be edited. Click on a rule to select it for editing.

21.39. Add, rename, enable, and delete rules

You can add, rename, enable and delete rules by using the appropriate right click shortcut menus.

The right hand window displays the validation rule you wish to apply. Below the right hand window are three radio field buttons. Select one appropriate to your needs.

The button labelled **'Action New'** is used to instruct the editor to apply the SQL operation automatically each time a new record is selected within the Eurotrace Editor program.

For example, you could set up a rule to populate a field with a certain code each time a new record is invoked within the Eurotrace Editor application.

I.e. Each time a new record is requested set the country code field to 'XX'.

The button labelled **'Action Dimension'** is used to instruct the editor to apply the SQL operation automatically each time data are typed into fields within a record in the Eurotrace Editor program.

For example you might have four fields Tax 1, Tax 2, Tax 3 and Tax 4 in the records that needs to be edited. You could also have a field called Total Tax that is the sum of these fields. You could set up a rule that automatically fills the Total Tax field with the sum of the other 4 fields as the information is filled into the field.

This information would be updated not when the record was called or exited but as the data are being typed into the form.

The button labelled **'Action After'** is used to instruct the editor to apply the SQL operation automatically when the Editor closes a particular record.

The SQL is then only executed when the record is being closed and saved.

🖵 DataSet Definition of New Dataset1 : <no label=""></no>	<u>? ×</u>
Algorithme Default New Default for standard importation and Editor importation	<u>E</u> dit <u>Duplicate</u> <u>D</u> elete
Dimension Validation Constraint Complex rule Editor User Parameters Label Action UPDATE [Import] WHERE [Yest] New Rule Dime O New Rule New C Action New C Action Dimension C Action After	External parameters Formulas parl>2004 Dimension Period : <no label=""> Year : <no label=""> Year : <no label=""> NewValue : <no lab<="" td=""></no></no></no></no>
Parameter for importation	Advanced parameter
Language English	<u> </u>

Below the Left hand window is a tick box labelled 'Unlock the record after the importation'. Using this option unlocks the record's flag upon re-importation to the dataset from a session in the Eurotrace Editor.

When you check records out to the Eurotrace Editor, the DBMS software makes a copy of the data and puts that into an .ETC file. It also writes an internal system flag against the data that are checked out for editing. This prevents other users from accessing the data that have been checked out by the editor. Then when the data are returned from the Editor, the Flag field can be removed which unlocks the re-imported data. So the check box labelled Unlock the record after the re-importation is setting the instruction to remove the Lock Flag in the data file, after the records have been re-imported.

Below the Scrollable Dimension list box is the 'Advanced parameter' button. Use this to access the panel entitled 'Network spreading Management' that enables the database administrator to monitor which parts of the domain are checked out for update.

Network	spreading ma	anagment		
	Nothing Record free	Record lock by rr	Record lock by a	
New	OK	Impossible	Impossible	Impossible
Identical	Impossible	OK	0K	OK
Delete	Impossible	Question	OK	D-elete
Modify	Impossible	Nothing	0K	Queshon

This completes the documentation for Validation Rules.

21.40. The User Parameters Tab (Only available under MS ACCESS)

A user parameter is an easy way to restrict the data to import. Sometimes some files have to be reimported to get new data, but it's not necessary to import all the file.

The user parameters allow to import a part of a file without having to create a full validation.

DataSet Definition of New Dataset1 : <no label=""></no>	? ×
Algorithme Default Default Default for standard importation and Editor importation and exp	<u>New Edit Duplicate Delete</u>
Dimension Validation Constraint Complex rule Editor Parameters of Import File F External parameters	User Parameters External parameters Formulas
Month 01 WHEF	IE [Year] = 2004
Language English	<u>Q</u> K <u>C</u> ancel

The 'User Parameters' tab looks like this:

The left hand window allows the selection of a period from the import file and the right hand window is used to enter a direct condition.

21.41. Add and delete user parameters

Use the check boxes to add or delete a parameter. The left hand window contains two textboxes for entering the selection of a period from the import file. The right hand window contains a data entry box for entering the direct condition using the Structured Query Language notation (SQL).

DataSet Definition of New Dataset1 : <no la<="" p=""></no>	abel>
Algorithme Default Default for standard importation and Editor importation	New Edit Duplicate Delete and exportation
Dimension Validation Constraint Complex rule Parameters of Import File External parameters	Editor User Parameters External parameters Formulas
Month 01 Year 2004	WHERE [Year] = 2004
Language English	<u> </u>

By selecting the 'External Parameters' checkbox, you can enter 2 parameters:

The 'Month' to import. The 'Year' to import.

By selecting the 'Direct Condition' checkbox, you can enter a where clause.

Example: The example above will only allow the importation of the data corresponding of January 2004 in the import file.

The import Wizard will only import data corresponding to the parameters entered in this Window.

Note that only one of the two checkboxes can be enabled.

21.42. The External Parameter Tab

There are two kind of external parameter:

The **'External Database'** is a database where errors on data can be stored independently of a Dataset.

The **'ParameterFile'** is an INI file where validations are defined.

The external parameter tab looks like this:

📙 DataSet Definition of New Dataset1 : <no label=""></no>	<u>? X</u>
Algorithme Default New Edit Default for standard importation and Editor importation and exportation	Duplicate Delete
Dimension Validation Constraint Complex rule Editor User Parameters External p	parameters Formulas
Parameters file C:\Program Files\Eurotrace153\SQLExpressions.ini	<u>Browse</u>
Load Parameter <u>F</u> ile	
Language English	<u>O</u> K <u>C</u> ancel

The 'Database path' textbox is used to enter the path of an 'External Base', and the 'Load Parameter File' button is used to select a 'Parameter File'.

21.43. Add and delete external parameters

Use the **'Database path'** textbox or the **'Browse...'** button to add the full directory and name of an external base. The **'Load Parameter File'** button is used to select a Parameter file.

🖵 DataSet Definition of New Dataset1 : <no label=""></no>	<u>?</u> ×
Algorithme Default <u>New</u> Edit	Duplicate Delete
Default for standard importation and Editor importation and exportation	
Dimension Validation Constraint Complex rule Editor User Parameters External	parameters Formulas
Parameters me [C:\Program Files\Eurotrace153\SQLExpressions.ini	<u>B</u> rowse
Load Parameter <u>Fi</u> le	
Language English	

The **'Browse...'** button opens a dialog box to select a database:

Select a File						? X
Regarder <u>d</u> ans :	🗀 Eurotrace153	-	-	= 🖻 📩	·	
Mes documents récents Bureau	Functions parameter Schema SQL SQLExpressions					
Poste de travail						
	<u>N</u> om du fichier :	Schema			-	<u>O</u> uvrir
Favoris réseau	Fichiers de <u>type</u> :	INI Files			•	Annuler
		🔲 Ouvrir en le <u>c</u> ture seule				
						11

Click on **'Open'** to select a database and return to the Validation form or on **'Cancel'** to cancel the operation.

The 'Load Parameter File' button opens a dialog box to select a parameter file:

Select a File					<u>? ×</u>
Regarder <u>d</u> ans :	🗀 Eurotrace153		•	+ 🗈 💣 🖩	•
Mes documents récents Bureau	Functions parameter Schema SQL SQLExpressions				
Poste de travail Favoris réseau	<u>N</u> om du fichier : Fichiers de <u>t</u> ype :	Schema INI Files		<u>•</u>	Quvrir Annuler
		,ouvin en le <u>o</u> rale seu	0		//.

Click on **'Open'** to select a parameter file and return to the Validation form or **'Cancel'** to cancel the operation.

The parameter file is an INI file that contains several tags to create different kinds of Validations:

The [Global] tag is used to create new global parameters. Only one tag is allowed per file. The **[Validation]** tag is used to create a new validation rule. Several tags are allowed per file. The **[Constraint]** tag is used to create a new constraint rule. Several tags are allowed per file. The [Complex] tag is used to create a new complex rule. Several tags are allowed per file. The **[Editor]** tag is used to create a new editor rule. Several tags are allowed per file. The **[User]** tag is used to create users parameters. Only one tag is allowed per file. The **[External]** tag is used to create external parameters. Only one tag is allowed per file. The [Formula] tag is used to create an aggregation formula. Only one tag is allowed per file. Example of a parameter file named 'Parameter.ini':

'Fichier d'initialisation des validations

[Global] AGREGATION=1 DISTINCT=1 VALIDATION=2

[Validation] NAME=ValRule2 TYPE=4 SQL=UPDATE	[Import]	WHERE	[Year]	>	2004
[Validation] NAME=ValRule3 TYPE=0 SQL=UPDATE	[Import]	WHERE	[Year]	>	2004
[Constraint] NAME=ConstRule1 RELATION=Rel1 COMBINAISON=1					
[Constraint] NAME=ConstRule2 RELATION=Rel2 COMBINAISON=0					
[Complex] NAME=CompRule1 EXECUTE=2 TYPE=1 START=1 TIME=3 SYNCHRO=1 SOL=UPDATE	[Import]	WHERE	[Year]	>	2004
[Complex] NAME=CompRule2 EXECUTE=1 TYPE=0 START=0 TIME=1 SYNCHRO=0	[1.1.9012]		[]		2001
SQL=UPDATE [Editor]	[Import]	WHERE	[Year]	>	2004
NAME=EditRule1 TYPE=1 DIMENSION=ItemNb UNLOCK=1 SQL=UPDATE	[Import]	WHERE	[Year]	>	2004
[Editor] NAME=EditRule2 TYPE=0 DIMENSION=Controlle UNLOCK=0 SQL=UPDATE	er [Import]	WHERE	[Year]	>	2004
[User] MONTH=01					

YEAR=2004 SQL=WHERE

[External] BASE=c:\toto.mbd

[Formula] AGREGATION=Last =

Each tag contains one or more keys to create each kind of rules:

Tag [Global]:

AGREGATION: parameter 'Aggregation before importation'. Values:

- 0 = False
- 1 = True

DISTINCT: parameter 'Import the distinct records'. Values:

- 0 = False
- 1 = True

VALIDATION: parameter 'Validation of required values'. Values:

- 0 = Validate Records with At Least One Required Value
- 1 = Validate Records with All Required Values
- 2 = Do not test Required Values

Tag [Validation]:

NAME: name of the new validation rule

TYPE: type of validation rule. Values:

- 0 = Validation
- 1 = Deletion
- 2 = Action
- 3 = Invariant
- 4 = Warning
- 5 = Transcodification

SQL: parameter 'SQL Code'. Value: a SQL request

Tag [Constraint]:

NAME: name of the new constraint rule

RELATION: name of an existing constraint relation

COMBINAISON: type of combinaison. Values:

0 = AII codes combinaison must exist into Constraint Table

1 = Code combinaison must not exist into Constraint Table

Tag [Complex]:

NAME: name of the new complex rule

EXECUTE: parameter **'Execute'**. Values:

- 0 = Before action rule
- 1 = Before check dimension
- 2 = Before rule validation
- 3 = Before importation
- 4 = After importation

TYPE: type of complex rule. Values:

- 0 = Action
- 1 = Condition

START: parameter **'After the'** for condition type. Values:

- 0 = First record
- 1 = Last record

TIME: parameter **'Time'** for condition type. Value: a number of months **SYNCHRO**: parameter **'Synchro'**. Values:

- 0 = False
- 1 = True

SQL: parameter 'SQL Code'. Value: a SQL request

Tag [Editor]:

NAME: name of the new editor rule

TYPE: type of editor rule. Values:

0 =Action New

1 = Action Dimension

2 = Action After

DIMENSION: parameter **'Dimension'**. Value: name of a valid Dimension for the Dataset

UNLOCK: parameter 'Unlock the record after importation'. Values:

- 0 = False
- 1 = True

SQL: parameter 'SQL Code'. Value: a SQL request Tag [User]: MONTH: parameter 'Month'. Value: the number of the month within a year YEAR: parameter 'Year'. Value: the value of a year SQL: parameter 'Direct Condition'. Value: a SQL request Tag [External]: BASE: parameter 'Database path'. Value: an existing full path and filename of a database Tag [Formula]: AGREGATION: parameter 'Aggregation Formula'. Values: First = aggregation on the first value Last = aggregation on the last value

Note: Not all tags have to be present in the file, but if a tag is present, all its keys must be correctly filled.

21.44. The Formulas Tab

An aggregation formula allows the definition of the kind of aggregation to use for the doubloons, before the importation. There are two types of aggregation for the text values:

'First': the application uses the first record for the importation. **'Last'**: the application uses the last record for the importation.

The formulas tab looks like this:

📙 Data5et Definition of New Dataset1 : <no label=""></no>		? X
Algorithme Default <u>New E</u> dit	D <u>u</u> plicate	Delete
Default for standard importation and Editor importation and exportation		
Dimension Validation Constraint Complex rule Editor User Parameters External	parameters	Formulas
Aggregation Formula		
Language English	<u>0</u> K	<u>C</u> ancel

The **'Aggregation Formula'** combo box is used to select the type of aggregation for the text value fields.

22.Dataset Scopes For Importing And Exporting Data

When you have created the new dataset, and created its structural definition, you will then be able to set the scope for each dictionary used within the dataset structure.

22.1. What is a scope?

The scope is the range of values in the dictionary that are either included as valid codes for the dataset or excluded.

The reason why you need to set scopes at all is because sometimes your datasets might only need to allow subsets of codes from a dictionary, rather than any code from within the dictionary.

For Example: If you have a dictionary of world countries, but your dataset was only for Scandinavian countries, you could set the scope of the dataset to only include the codes from the dictionaries that correspond to the Scandinavian countries. Therefore codes that belonged to countries which were not Scandinavian, would not be permitted.

When you set dataset scopes, you are defining the codes of the dictionaries that will be allowed when **<u>importing data into a dataset</u>**.

The scope settings for your dataset therefore act as a filter enabling you to import records that meet your user defined dictionary criteria.

Records containing dictionary codes that are not selected in the scope, will be rejected to the error file when importing.

For example, when importing data from European countries – you can restrict the data that pass into a dataset to just European Union Member States, by ensuring that only the European Union Member States' country codes are selected in a dictionary of country codes.

Dataset Scopes can therefore be used to determine which records are loaded into different datasets and which records are filtered out, in accordance with the scope settings for the dictionaries that you specify.

22.2. How to set a dataset's scope

Select the dataset for which you wish to define the scope and either choose **`Dataset'** and then **'Scope'** from the shortcut menu, or click on the **'Dataset / View Scope'** button.

The following screen is displayed.

Dimension	Link	Filter			
L→ Period : ≺No Label>	<source/>	<all></all>	ur.		
elation Source Dictionary		2	User List KNo L	IserList>	
Available Lodes Label			Selected Codes	Appual	
			00	Annual	
			2 02	Februaru	
			203	March	
			104	April	
			🧭 05	May	
			🥮 06	June	
			07	July	
			> 🤣 08	August	
			09	September	
			10	October	
			Fct 711	November	
			12	December	
			< 21	1st Quarter	
			22	2nd Quarter	
			23	3rd Quarter	
			24	4th Quarter	
			3 1	1st Semester	
			32	2nd Semester	
			42	Jan-Feb	
			43	Jany-March	
			244	Jan-April	
			240 201 AC	Jan-May	
			3 4b 3 47	Jan-June Las July	
			14 4 8 6	1.40% (1.00)	

You select the dictionary to work with, in the list of dictionaries that apply to the dataset. This list is displayed at the top of the screen (the list is labelled 'Dimension').

If you don't see the dictionary you want, it is because you have either selected the wrong dataset, or you have selected the right dataset, but you have not yet added the dimension to the structure of the dataset yet.

After you have selected the dictionary, the list of codes that are available for scope selection, for the selected dictionary is displayed in the right hand side of the window in the selected codes list.

N.B. By default all the codes are initially selected – so if you want to exclude codes – you must unselect them.

This is done by moving a code from the selected codes list to the available Codes list on the left hand side of the screen.



The buttons in the centre column panel are for moving the codes between the 'selected' and 'available' lists.

22.3. How to select and unselect scope codes

Select the code you wish to move by clicking on it. The code will be highlighted in the list to indicate it has been selected.

Tip ! If you want to select more than one code to move at a time try this : Hold down the 'Control' key on the Keyboard when selecting the codes. You can select adjacent codes or codes which are not adjacent using this method.

When you have selected your codes, move them by clicking on an appropriate button.

Use the '>' button to move a selected code, or many selected codes from the available list to the selected code list (left to right).

Use the `>>' button to move all of the codes from the available list to the selected code list (left to right).

Use the `<' button to move a selected code, or many selected codes from the selected list to the available code list (right to left).

Use the `>>' button to move all of the codes from the selected list to the available code list (right to left).

Use the 'FCT' button to 'Filter the Code Selection'. This useful feature enables you to set up 'Wildcard' type matches to search for codes.

Enter Dattern String for I	Codo Solootion
? : Any single character	code selection
*: Zero or more charact	ers
# : Any single digit (0-9)	
[charlist] : Any single ch [loharlist] : Any single ch	aracter in charlist
[charlist] : Any single ch [!charlist] : Any single ch	aracter in charlist naracter not in charlist.
[charlist] : Any single ch [!charlist] : Any single ch [222222222ES*	aracter in charlist naracter not in charlist.
[charlist] : Any single ch [!charlist] : Any single ch ????????ES*	aracter in charlist naracter not in charlist.
[charlist] : Any single ch [!charlist] : Any single ch ????????ES*	aracter in charlist naracter not in charlist.

N.B. It is the codes that are searched and not the labels!

Thus `*9*' will select all codes that include the number 9 somewhere.

ABC8* will select all codes that start with ABC8.

A?BF23 will select any codes that start with A and end in BF23, regardless of what their second digit is.

This feature can be useful when managing very large code lists.

When you have finished selecting the codes that you need for each dictionary for your dataset, click on the 'OK' button to save the selection.

If you don't want to save your selected codes you can click on the 'Cancel' button.

22.4. Changing the dictionary's label language.
Select the language that you need your dictionary labels to be displayed in from the drop down language label list at the bottom of the screen on the left hand side.

22.5. View scopes for exporting data

You can also set scopes for making exportation files as well as when importing data into a dataset. These scopes are defined in the same way, but you make them on the dataset View Tab.

When you make an extraction of data you have to set up a 'View' to specify the qualities/ characteristics of the data that you wish to extract.

For example: If you had a dataset of oil exports for all world countries and you wanted to extract from the dataset only records that belonged to countries within the European Union, you would define a view with the appropriate scope settings allowing only the inclusion of the European Union Member States. Those countries with oil fields, for example in the North Sea, would then be included.

View scopes are created the same way as dataset scopes, except that you access them via the view tab.

Select the dataset, Select the dataset view tab,

Select an existing view or define a new view.

Select the 'Scope' shortcut menu option.

Select the dictionary.

Select the appropriate dictionary codes.

Click 'OK' to save the scope code selection, or 'Cancel' to cancel the selection.

22.6. The difference between dataset scopes and view scopes

The difference between dataset scopes and view scopes is, that dataset scopes are used for importing data into a dataset, whilst view scopes are used for exporting data (for more on exporting data see Chapter 18 exporting data.doc).

They are treated as separate items because your export views may be different from the import views – for example you might wish to import only EU Member States from a set of European countries when importing data into a dataset, and only want export to export Schengen zone countries when exporting data. In this case, you would need one set of scope codes to be set when importing data and another to be set when exporting data. Therefore these scope selections – even though from the same dictionary- are treated separately. The import codes are selected as 'Dataset' scopes and export codes are selected as 'View' scopes.

23.Importing Data

To import data to your EUROTRACE Dataset, click on the Dataset in the Dataset Tab window and choose import from the shortcut menu. This will start the Import Wizard and this screen will appear.

🚀 Importing Data in LOAD DEMO : LOAD DEMO [DATASET		<u>? ×</u>
Import Wizard : Select an Impor	rtation Scl	neme	
eurostat	You're trying to LOAD DI DATASE	import Data into : EMO:LOAD DE T	мо
EUROTRACE DBMS	 Use Simple (Only for Ta Use Comple Select an B (Wizard car just select a 	Importation Wizard bles with Identical structu ete Wizard For Customizer wisting Importation Schem use a previously saved I in existing one!	res) d Importation ne mportation Scheme,
Import Wizard	Code	Label	
	Cancel	<< Back Nex	(>>> Import

Select the type of import method you would like to use.

The Simple Importation Wizard should be used only when the EUROTRACE Dataset and the data table you are importing have **exactly** the same structure.

The Custom Importation Wizard should be used to import data tables to EUROTRACE Datasets when the structures are not exactly the same.

You can also select a previously saved import scheme – provided one exists already.

ten 1 · S	elect the D	ata File vou	r wish to Im	ort	Select Source
		ata i ne you	1 101511 (0 111	/010	

23.1. The Simple Import Wizard

Only use this option when the structure of the data you are importing matches the structure of the Dataset. Click on the 'Next' button to proceed to Step 1 entitled 'Select the Data File you wish to import'

Step 1 Select the Data File to Import

You must use click on the '**Select Source**' button at the top right hand corner of the window, and then navigate to the source file that can be in one of the following formats:

Microsoft Access Database Microsoft Excel file FoxPro Database ODBC Data source Text File

After you have chosen a data source file, you will see the contents of the file in the Import Wizard window.

a	1			
Б				
c d				
e				
f				
z				
1-				

You then have to select a format from the dropdown menu at the bottom left hand corner of the screen.

After you have selected the format, click on the button '**Next**' to go to Steps 2 and 3 of the Import Process. **Tip!** When importing text files, an editable file with the .bki extension stored in the EUROTRACE domain directory can also be used to specify the text file structure.

Tip! Text files must be a DOS or MS Windows compatible format.

Steps 2/3 Link Dimensions to Import Fields or Constants

Steps 2 and 3 link your Dataset Dimensions to the fields to be imported. The Step 2 window will display a list of the Dimensions from your Dataset that should be automatically linked to the correct fields in the import table by using the type of Dimension and the naming. If in the import table there is a Dimension called TIME with a 7 digit alphanumeric structure, EUROTRACE will automatically try to split it into PERIOD and YEAR.

		<u>?</u> ×
t Field or Constant		
Expression/Constant	Preview	Size
od]	Check	2
r]	Check	2
	Check	8
	Check	8
	Check	1
Cancel Back Nex	t Imp	oort
	t Field or Constant	t Field or Constant Expression/Constant Of Check

The linked fields are displayed in the **'Linked'** column. If no Association can be made automatically, the Dimension will be marked **'Constant'**.

If you wish to manually change the link, click on the **'Associate'** button.

If you are not able to link some Dimensions, it is advisable to use the Complete Import Wizard. (see Chapter 16)



In order to link the remaining dimensions, select the dimension from the list on the left, then click on the fields you wish to link to from the list on the right and click on the bar in the centre to create the link.

Match Dimension with Imported Field	×
Dimensions ↓ Feriod : <no label=""> Year : <no label=""> ↓ Dic 1 : Dictionary 1 ↓ NewWalue : <no label=""></no></no></no>	Fields
Dimension Field	
Remove Association	reduce Field list Cancel OK

If you make a mistake you can remove the link by clicking on the '**Remove Association**' button.

In the lower window you will see a list of the links you have created. Click on the '**OK'** button to return to the wizard.

For all unlinked Values, you may input a constant or leave blank and import as an empty field.

To input a constant value, double click in the column labelled `Linked', for the item that you wish to add the constant to and then input the constant's value in the window.

Click on the **'OK'** button to return to the Wizard.

For all unlinked dimensions you must select a constant value to be imported.

To select a constant, double click on the dimension and then select a code from the list. When selected, a red check mark will appear on the code.

Click on the **'OK'** button to return to the Wizard.

To assign a Field length or to check/ignore the Field in the **'Preview Conversion'** window, simply right-click on the dimension and a menu appears.



You can then check or uncheck a Field or all Fields. If you uncheck a Field, it will not appear in the **'Preview Conversion'** window. To assign a smaller length to a Field for the preview, click on the **'Truncate field in preview'** menu.

Truncate field in preview	×
Reduce the size of the field to the following value:	ОК
	Cancel
a	

Enter a smaller length to the Field. This will increase the speed of the preview calculation. Click on the **'OK'** button to return to the Wizard.

Once you've linked at least one dimension, one click on a dimension will open the below **'Expression Builder'** form

Build-	n Functions 📃 🔺	[F1]		
	LEFT (<char_expr>,<int_< th=""><th>×</th><th></th><th></th></int_<></char_expr>	×		
	LOWER (<char_expr>)</char_expr>	10		
	LTRIM (<char_expr>)</char_expr>			
	REPLACE (<char_expr1< td=""><td></td><td></td><td></td></char_expr1<>			
	RTRIM (<char_expr>)</char_expr>			
	RIGHT (<char_expr>, <li< td=""><td></td><td></td><td></td></li<></char_expr>			
	UPPER (<char_expr>)</char_expr>			
	YEAR(<date>)</date>			
	CBool(<expr>)</expr>			
	CByte(<expr>)</expr>	<		
	CDate(<expr>)</expr>			
	CDbl(<expr>)</expr>			
	CInt(<expr>)</expr>			
	CCur(<expr>)</expr>			
	CLna(<expr>)</expr>		Save	Cancel

This form allow you to use existing functions and expressions as well as saving your own customs functions. It also shows the syntax to use for each function.

One click on **'Save'** will save the content of right frame in the Expression/Constant column of the current dimension.

If, during the operation on the form you have saved an expression to your custom functions' list (clicking on <), clicking on 'Save' will also save the expression in the appropriate file for reuse.

After you have finished linking dimensions, click on the **'Next'** button to go to Step 4.

			- 100 - 100 - E		_
Period	Year	Dic 1	NewValue		
01	1999	b	12		
01	1999	C .	12		
01	1999	d	12		
01	1999	e	12		
01	1999	1	12		
01	1999	g	12		

Step 4 Preview your Conversion

This screen will display a preview of the importation you have created, and will check if the structure type and size are correct.

By default the first 10 records are displayed, if you wish to see more than 10 records you can select a **'New number'** from the drop down list at the top right hand of the window. Click on the **'Next'** button to continue.

If errors occur use the **'Prev'** button to go back to the previous step to redefine your import procedure.

Step 5 Choose your Import Options

The last step of the Import Wizard allows you to set options for the import.

If you have established Validation Rules for your Dataset, you will see them listed in the window. Above the list of Rules you can select to apply the Rules or to disable them.

	Do not Apply Rule						
Script Default	Rule Type SQL Set Month2 di Action Q UPDATE [Import] SET [Import].[Per Set Partner Im Action Q UPDATE [Import] SET [PartCountr. Set Partner Im Action Q UPDATE [Import] SET [PartCountr.						
 ✓ Activate all Standard Checks ✓ Check Dimension Validation Rule ✓ Use Default Value if necessary ✓ Do not test Required Values 							
	Origin CADecurrents and Casting ACERACTIENTMAN Jacks						
ource A001 Automatic Treatment (you will be pro	Origin C:\Documents and Settings\SEBASTIEN\Mes docum	nents\Ag					
urce A001 Automatic Treatment (you will be pro Always Accept New Records	Origin C:\Documents and Settings\SEBASTIEN\Mes docum mpted during Importation)	nentsVAg					
Automatic Treatment (you will be pro Automatic Treatment (you will be pro Always Accept New Records Always Accept Updated Records	Origin C:\Documents and Settings\SEBASTIEN\Mes docum mpted during Importation)	nentsVAg					

The following options are dependent on the definition of the dimensions:

Check Dimension Validation Rule If you have defined a validation rule for any of the dimensions in your dataset, you will be able to activate or disable them with this option.

Use Default value if necessary If you defined a default value, you will be able to toggle this option on or off.

'Required value sensibility' is used to determine the testing of records with values that are defined as 'required'. You may choose one of three options.

Validate records that contain at least one required value Only validate records where all values are required values. Do not test for required values.

`Automatic Treatment (you will be prompted during Importation)' At the bottom of the screen, you have options that you will be prompted for before any changes are made to the database, as well as archive options. This is off by default in which case EUROTRACE will automatically perform all the operations listed below. If you want EUROTRACE to prompt you for any or all of these operations, activate this option and then choose from the list below:

Always accept new records - All new records are added to the data file.

Always accept updated records - All old records will be replaced by the new ones.

Always accept deleted records - Deletes all records for empty import fields.

Archive Relocated and Deleted Records - Relocated and deleted records are stored in a separate History file.

Archive Error Records for Next Treatment - All error records are stored in a separate Error file.

Compact Dataset after Importation (MS Access only) - This will compact the data file, and could reduce the size of the data file by removing unnecessary information. This option should be used with care as it could take a long time to compact very large data files.

Starting the importation

When you are ready to start the importation, click on the **'Import'** button.

The Import Wizard will now begin importing data into your Dataset. You will see the screen shown below.

As the data are imported you will see the status of each step and any errors will also be displayed in the list.



Before the importation is complete you will be prompted in accordance with the options chosen in the previous step.

The window will display a summary of the importation process and give you the chance to disable one or more of the actions before clicking on the **'Import'** button to finish the importation process. You may also choose to cancel the import.

The last message will prompt you to compact the data file.

This could reduce the size of the data file by removing unnecessary information.

N.B. It can take a long time to compact very large data files.

The Simple Import Wizard will stop with the words "End Importation" in blue text on the screen. Click on the 'Close' button to return to the main screen.

If you have one or more errors in your importation file (as in the above example) you will be prompted automatically with the Error Management form in auto process mode (step are forced until errors are identified). If possible, correct errors and re-import data into your dataset.

24.Outliers detection

Outliers are values that seem extreme compared to the majority of other values in a given set. Extreme outlier values could be values that are in error. EUROTRACE can detect outliers for user defined periods and key dimensions set.

24.1. Outliers detection preparation

To open the outliers dialog, select the Dataset – Outliers detection menu item



You can either create a new outlier detection template template or manage the list of existing template by choosing "Run/Edit/Delete" which will open the following dialog:

🔡 Available Outliers		×
Outlier	Source DS	Destination
outlier_demo	DECLARATION	C:\ST KI
Cance	Edit Delet	e Run

When creating a new template, the following window will appear where you'll have to specify the detection method and parameters:

•	Simple								
ontrols the shape of the	To regulate the amplitude of	Controls the wid of the acceptanc	:h e	NDarrah	ND70	ZThurshald	De	tection Meth	ods
ceptance region	interquartile distance	region			NParam∠s	Z i nresnoia		Hidiroglou-Bert	helot
10	A JU	С [3		17	4	1	V	Z-Score	
ey Dimensions	Values	Periods							
'ear 🔺	NetWeight 🔺		2013	2012	2011	2010	2009	2008	
Period	GrossWeight		All	All	All	All	All	All	
)ffice	SUQTY	January							
rader	CustomsValue	February							
ransport	OtherCharges	March							
ransportnat	Freight	April							
PC	Insurance	May							
ommodity	TaxVal1	June							
rigindestination	TaxVal2	July							
ax1	TaxVal3	August							
ax2	TaxVal4	September							
ax3 🗸	TaxVal5	October							
		November							
alculated Eleme	ents / Values				Calc	culated element	tname		
alculated Eleme	ents / Values				Calo	culated element	t name	Add	
alculated Eleme Use Values 💌	ents / Values	/ •			Calo	culated element	t name	Add	
alculated Eleme Use Values 💌 ame	ents / Values	Formula			Calc	culated element	t name Double click	Add	
alculated Eleme Use Values 💌 lame	ents / Values	Formula				culated element	t name Double click	Add	
alculated Eleme Use Values 💌 ame Average based of Trimmed average Right Intervals, S	computations standard deviation, Lef	Formula Formula	an base dian, med ivation Lé	d computati lian Absolute ft Right Interv	ons	Parameters - TrimPercentag Left Coefficier	t name Double click	Add to edit	ient 20

On the top there are the parameters specific for the calculation:

 ${\bf U}$ This parameter controls the shape of the acceptance region. The value must be included in the range (0, 1)

A is a suitable positive number introduced in order to avoid the detection of too many outliers when the values are concentrated around their median; is set by default at 0.05

C is a parameter used for calibrating the acceptance region width. The value must be > 1.

NparamHB and NparamZS are the minimum number of records to be taken into account for the outlier detection range of acceptable values (respectively for the Hidiroglou-Berthelot and Z-score methods). A to small number of records selected will not enable a good (reliable) range of acceptable values.

Zthreshold is used as a threshold for the Z-score detection method. All observations with a Z-score greather than Z-threshold will be considered as an outlier.

The Key Dimensions and Values lists contain the dimensions of the dataset. You have to select the keys and values for which detect the outliers.

The right side of the dialog contains the years and periods for which the datasets contains data.You can select one single period clicking on the corresponding cell, or one year clicking on the *All* cell.The periods selected will be displayed in green.

2010 2009 2008 2007 2006 All All All All All All January February Image: Constraint of the second	2005 2004 All All	
All	All All	
January February March April		
February March April		
April		
April		
May		
June		
July		
August		
September		
October		
November		
December		•

Additional computations

The last part of the dialog lets you define additional computations:

You can define new computed dimensions, for instance you want to compute outliers on the unit price, you can define a new dimension unit_price as value / quantity. Once the formula has been defined, click on **Add** to add it to the outlier detection template. You can update and delete these user defined formulas later with the **Delete** and **Update** buttons.

You can also select the following additional calculations to appear in the outlier report: Trimmed average, Trimmed standard deviation (you have to define the percentage of trimming **TrimPct**), Left & Righ intervals (define **LC** & **RC** as left & right coefficient), Median, MAD (Median Absolute Deviation), Skewness and Kurtosis.

Calculated Elements / Values		
Use Values 💌 CustomsValue 💌	/ VetWeight	Calculated element name Add
Name	Formula	Double click to edit
UnitPrice	CustomsValue/NetWeight	Edit
Average based computations	Median based computations	Parameters
☑ Trimmed average standard deviation, Left Right Intervals, Screwness ,Kurtosis.	Median, median Absolute Derivation Left Right Intervals	TrimPercentage 7 Left Coefficient 20 Right Coefficient 20

24.2. Outliers detection run

Click on Run to start the process. The computation can take some time, depending on the size of the dataset and the periods selected.

At the end of the process, the results are displayed and can be exported as text file.

To export the results click on the **Browse** button to select path and name for the output file.

Save As					? 🗙
Save in:	C ALBANIA		•	+ 🗈 💣 🎟	.
My Recent Documents Desktop	i⊂a Log ∭ Data				
My Documents					
My Computer					
S	File name:			•	Save
My Network Places	Save as type:	Text Files		•	Cancel

Click on the Export button, and when the process is finished you will be prompted with a message:



Two files will be exported, one containing the outlier detection report and another one containing the computations.

Example:

Outlier detection report

ORIGINDESTINATION	CUSTOMSVALUE	UNITPRICE	Detection method
QO	115	8,2143	HB, ZS(1,00779671390491)
QO	2944	54,5185	ZS(1,27995365557438)
QO	3142	34,9111	ZS(1,44007192109467)
QO	3142	39,275	ZS(1,44007192109467)
QO	3481	21,097	ZS(1,71421379994002)
QO	4159	16,0579	ZS(2,26249755763071)

SR,CustomsValue

ORIGINDESTINATION	CUSTOMSVALUE	UNITPRICE	Detection method
SR	70614	5,5254	MZS(8,43181200760663)

Note the detection method(s) indicates which algorithm has marked the result as an outlier:

- HB: Hidiroglou-Berthelot
- ZS: Z-Score
- MZS: Median Z-Score

Computation report

SERIE NAME	MEDIAN	MAD	L_INTERVAL	R_INTERVAL
AE,CustomsValue	2377	1801	-51026,2525578	30,252
AG,CustomsValue	228	125	-3478,5 3934	1,5
AI,CustomsValue	600	480	-13632,96 1483	32,96
AR,CustomsValue	8967	8898	-254876,496	272810,496
AT,CustomsValue	226	100	-2739,2 3191	L,2
BB,CustomsValue	1610,5	1264,5	-35884,4543910)5,454
BR,CustomsValue	5901,5	5376,5	-153522,478	165325,478

25.Error, History, and Operations 25.1. How to Manage Errors

Errors are best corrected by using the Eurotrace Editor program, which has been designed to edit Eurotrace data easily.

The extracts of data are prepared in the Eurotrace DBMS program and then exported to the editor program via the Eurotrace .etc file format.

One type of data that can be exported to the Eurotrace Editor for correction is importation error data. These importation error data are listed in the dataset error tab.

N.B. Don't forget that the error data that are displayed in the error tab should be refreshed. Refreshing the data is discussed below.

After refreshing the Error tab list you select the error data that you wish to work with and use the shortcut menu 'Export to Editor' option.



The Eurotrace DBMS then creates an editor file for the data you have selected.

You will be prompted to ask whether you want the file to automatically open the Eurotrace editor program if you have it installed.

View/Edi	t Data
?	Do you want to open your Extraction under Eurotrace Viewer/Editor ?
	Yes <u>N</u> o

If you say 'yes' the editor will open and you can edit the file. If you say 'no' the file will be written to the location specified in 'Tools' Menu, 'Options' sub menu, 'Import / Export' Tab in the 'default exportation path'.



The file can then be opened with the editor and edited later on. For more information on editing files see 'The Eurotrace Editor User Guide'.

25.2. The Error Tab

The Error tab contains a list of operations in which errors occurred while processing data. It also displays information on the source, date of the operation, and the number of records that were affected. These errors can be corrected directly by using the Eurotrace Editor.

🛃 Eurobrace					_ 🗆 ×
Domain Language DataSet Error Tools H	elp				
	A N2				
DataSet Derived DataSet 😵 Class	fication Plan				
DataSet State	📃 🏨 Definition 🖾 Views 🗙 I	Errors 🎲 History	矣 Import Opera	aticn 🛛 🈘 Export Operation	1 Information Flow
PSA:est : Tes 10 enregistrement	jource	Date	Errois Number	Uperal	
PSATest2: T 12 Records	CroatiePsa : D:\Proects\Eur	2004/12/10 10	-0	0002	
SAD : SAD DataSet Multific	CroatiePsa : D:\Proect;\Eur	2004/12/16 1	-0	0003	
StatSAC : SA DataSet vide	🛛 🗙 CroatiePsa : D:\Proects\Eur	2004/12/16 1	- 4	0004	
	CroatiePsa : D:\Proects\Eur	2004/12/16 1	- 4	0005	
	🛛 🗙 CroatiePsa : D:\Proects\Eur	2004/12/16 1	-4	0006	
1	4				
Ready.					11:07

When you right-click in the error window, you will see this menu. There is also an 'Error' drop down menu with the same options.

Refresh	Refresh will update the list of entries in the window.
Process	
Export	Process will open the Error Management Wizard
Delete	
Delete all	Export will allow you to export the error table to an
	.mdb file.

Export to Editor will allow you to export the error

table to an .etc file format suitable for loading into the Eurotrace editor.

Delete is used to delete the selected entry.

Delete All will delete the <u>entire list</u> of entries.

Both 'Delete' and 'Clear' are deleting the selected entry in the list – in the case of 'Clear' that's all the entries in the list - but they are also deleting the underlying records which are in error. It is not just the items in the list that you are deleting but also the records in error as well.

N. B. Refresh is important. Eurotrace can work with either the automatic refresh switched on, or the automatic refresh switched off. The reason why this is switchable is because if the automatic refresh is switched on permanently it will refresh the refreshable lists every time you change screen. If you are accessing a large dataset via a network connection having to wait even just a few seconds for each manoeuvre is a nuisance, especially if you don't need to see updated lists at every manoeuvre. Therefore you have the option to disable the automatic refresh features and just use a manual refresh option as and when necessary. This is actually a much faster way to work especially with large datasets or slow networks as you only manually refresh as and when required.

To enable or disable the automatic refresh functionality use the 'Tools' menu, the 'Options' menu option and the 'General' Tab and use the Automatic refresh selection boxes.

Options				
General Backgrour	nd Recent files	Import / Export	Back Up	
Interface language	English		3	
Automatic Refres	h — Errors	History	C Opera	ations
Number of Records	Displayed	800 Time	r Interval (ms)	20
				Coursel
		2	UK _	Lancel

25.3. The History Tab

For each operation that caused records to be replaced, there will be an entry displayed in the **'History Tab'.** The entries show the number of old records stored in the history table.

So when you replace a record in the dataset the old records that get replaced are moved to a history file. If you then delete this history file you delete the old replaced records.

If you restore the history file you put the original records back in the database and those records which are then replaced are put into a history file.

🖗 Eurotrace - SURINAME	
<u>D</u> omain <u>L</u> anguage <u>D</u> ataSet <u>H</u> istory <u>T</u> ools <u>H</u> el	þ
D 🗃 🖀 🗙 🗗 🏟 🛍 📓 🔏	<u>N</u> ?
🗇 DataSet 🚮 Derived DataSet 📎 Classifica	tion Plan
DataSet State	💼 🛱 Definition 🏼 🤣 Views 🗙 Errors 🗳 History 侯 Import Operation 🔤 Export Operation
ABSAS1 : AB 29 Cells/MultiFil	Source P Y Date Relocate Number Operat
USTUMS : 145 Cells/Multi	Unknow Operation 1899/12/30 00 1698 0000

The **'Restore'** option in the right-click menu allows you to re-import the records to the database and therefore replacing the existing ones. These will then appear in the list of the History Tab.

If you click on the 'Restore' menu option you get taken to step 4 of the data Import Wizard.

/aleurDv	CondLiv	Taux	Fret	Assurance	ValeurDr	Jour	Valeur	Poids
895899.08	CFR	11.6543	1212048	31327	10721242	21	10722461	8000
579424.48	CFR	11.638	990857	20284	6918982	26	6918982	4995
35719	CFR	11.71438	0	1255.24	422013	16	422013	26
135001		11.6693	0	0	1575356	17	1575356	450
12499		11.6703	0	0	145856	19	145856	41
93168.26	FOB	11.644206	0	0	1084858.83	1	1084858.83	4961
186413	FOB	11.55284	0	0	208386	8	208386	18
768001		11.6703	0	0	8989680	12	8989680	2560
4250.18		10.2675	0	0	43629	15	43629	
826001		0	204612	0	826000	4	826000	2950

You should continue as prompted by the Import Wizard making selections appropriate to your requirements.

<u>R</u> efresh
<u>R</u> estore
Export
<u>D</u> elete
<u>C</u> lear

Export exports the data file via the Export Wizard.

Delete erases the currently selected history file.

Clear deletes <u>**all of the history files**</u> on the history Tab (and also the associated records in the dataset).

25.4. The Import Operation Tab

The import operation tab contains a list of import operations performed on the dataset with information on the type of operation, the results, the date of the operation and how many records were affected.

🔀 Eurotrace - SURINAME							
Domain Language DataSet Operation Tools	Help						
	uon Han 1844 p. c. s. 25 p. c. 💙	- 1.49		A loss at On and in			
DataSet State	🖫 Definition 🖓 Views 📈	Errors	History	Manual Manual Contraction	י 😪 Export Uper	ation	
ABSAS1 : AB 29 Cells/MultiFil	Source	P Y	Oper	User	Result	Date	Reco
CUSTOMS : 145 Cells/Multi	2000DEXP : C:\Documents	· · · · ·	0308	Admin	ОК	2008/10/	16616
	1 2000DEXP : C:\Documents	01 2	0309	Admin		2008/10/	1117
	2000DEXP : C:\Documents	02 2	0310	Admin		2008/10/	2409
	2000DEXP : C:\Documents	03 2	0311	Admin		2008/10/	1440
	2000DEXP : C:\Documents	04 2	0312	Admin		2008/10/	1317

The operations right-click menu allows you to refresh the contents of the operations window or to delete entries from the list.

Refresh	
Cancel	
Delete	

Refresh - refreshes the list.

N.B. You can switch this to automatic under the 'Tools' Menu', 'Options' submenu, 'General Tab', 'Refresh' option.

Cancel – undo the import operation.

Delete - deletes the selected import operation record in the import operation Tab. It doesn't delete data in the dataset.

25.5. The Export Operation Tab

The export operation tab contains a list of export operations performed on the dataset with information on the type of operation, the results, the date of the operation and how many records were affected.

🛃 Eurotrace								
Domain Data language DataSet Operation	n Tools Help							
D 🚘 🕾 🗙 📮 🖗 🔣 🕵	3 🤬 N ?							
🗇 DataSet 🚭 Derived DataSet 💊 Cla	assification Plan							
DataSet State	🖽 Definition	🕼 🖓 Views	🗙 Error	s 😭 Hi	story 🛛 😪 Import Operat	ion 😪 Exp	port Operation	
Declaration : Empty DataSet	Destination	Operation	User	Result	Date	Records	Key	Status
New Dataset Error	C:\Pro	Pefrech	Admin		2002/12/13 15:20:18	0	109:13,12,02,15:19:47	Lock
New Dataset Error	C:\Proj	Statistics	Admin		2002/12/13 15:20:36	25	110:13,12,02,15:19:47	Lock
test: <sans dataset<="" empty="" l="" td=""><td>C:\Pro</td><td>Cancel</td><td>Admin</td><td></td><td>2002/12/13 15:20:48</td><td>25</td><td>111:13,12,02,15:19:47</td><td>Lock</td></sans>	C:\Pro	Cancel	Admin		2002/12/13 15:20:48	25	111:13,12,02,15:19:47	Lock
	C:\Proj	Export	Admin		2002/12/13 15:21:01	25	112:13,12,02,15:19:47	Lock
		Unlock						
		Unlock All						
	4	Delete	-					•
, D								15.44
леацу								15,44



Refresh - refreshes the list. N.B. You can switch this to automatic under the 'Tools' Menu 'Options' submenu 'General Tab' Refresh options.

Unlock – will remove the lock flag for the records for the selected Exportation operation.

When you make an export to the Editor – Eurotrace writes a lock flag against the exported records to lock these from change, by other users until the amended records are re-imported back from the Editor.

When you re-import the records back from the editor the Lock flag is removed enabling the records to be selected by other users.

Unlock is used to manually unlock Export operations records. This might be necessary for example, if the export file was lost or in some way damaged.

Unlock All – unlocks all of the records in the Export Operations Tab.

When you unlock a selected entry in the Operations table the entry disappears from the list. Similarly if you unlock all of the entries by using the 'Unlock all' option all of the entries will disappear from the list.

You are not deleting the data in the dataset, you are only deleting the records of the export operation in the export operation table – The data in the dataset are not deleted.

Delete - deletes the selected export operation record in the export operation Tab. It doesn't delete data in the dataset.

Statistics, Cancel and Export – menu options are not available in this release.

26.The Complete Import Wizard

Step 1 Select the data file to Import

From the Import Wizard screen select the Complete Wizard and click on the **'Next'** button to continue.

Importing Data in	EXPORT5 : <no l<="" th=""><th>.abel></th><th></th><th></th><th></th><th><u>? ×</u></th></no>	.abel>				<u>? ×</u>
Step 1 : Select	t the Data F	ile you	r wish to Ir	nport	Sele	ct Source
		_				
						-
						Ŧ
able					[]	
		<u> </u>	Cancel	<< Back	Next>>	Import

As with the Simple Import Wizard, select a data source and table to import and click on the **'Next'** button to go to Step 2.

Step 2 Associate Dimensions to Import Fields

Step 2 of the Complete Wizard lets you associate dimensions from your EUROTRACE data set to the import file fields.

You select a dimension from the list in the left-hand window, by clicking on it.



You choose the nature of the link to the data file. Do this by selecting one of the four options at the top right hand side of the window. You have the following choices:

Not linked

This option should be used when a dimension or value is not linked to any of the fields in the import file, but is dependent on other separated linked fields. If this is not the case, it should be marked `constant'.

Constant

This option should be used when a dimension or value is to be filled by a user - defined constant. Setting the value for the constant is discussed on the next page (Editing Expressions and Constants).

Linked Fields: Mixed

This option should be used when a dimension or value of the dataset is linked to one or more fields of the import file. If it is linked to more than one, the data are associated (concatenated by default), and this expression can then be edited in the next step by double-clicking on the dimension.

Linked Fields: Separated

This option should be used when a dimension or value of the dataset is linked to more than one field of the import file, and you have dependent dimensions or values (not linked). This will allow you to generate multiple records by defining the dependencies between the dimensions and values. These dependencies can be established in Step 3.

You then select a dimension or value from the dataset (left side), and the type of association. If you choose a linked field type, you can then select the field(s) to be linked from the import table (right side) and click on the arrow bar in the middle to create the link.

The details of the link definition are displayed in the bottom section of the screen. You can remove an association or clear all associations by using the right-click menu.

Editing Expressions and Constants

Being able to set the Expressions is a powerful feature as it enables you to perform complex calculations and transformations to the data as you import them.

Dimension T	vpe S	💭 Not Linked	Constant
→Period: <nol t<br="">→ Year: <nola in<br="">→ Dic 1: Diction T</nola></nol>	iext 2 nteger 2 iext 1	C Link Fields : Mixed	C Link Fields : Separated
Dimension	Field	Expression/Constant	
Dimension → Period : <no label)<="" td=""><td>Field</td><td>Expression/Constant</td><td></td></no>	Field	Expression/Constant	
Dimension Î→ Period : <no labeb<br="">Ì→ Dic 1 : Dictionary 1</no>	Field > a Constant	Expression/Constant 3: <no label=""></no>	1
Dimension Period : <no label;<br="">Dic 1 : Dictionary I NewWatter : <no label;<br="">Remove</no></no>	Field Constant Constant	Expression/Constant 3 : <no label=""> 56</no>	[
Dimension → Period : <no label)<br="">→ Dic 1 : Dictionary 1 NewValue: <no la<br="">Remove Clear A:</no></no>	Field Constant Association	Expression/Constant 3 : <no label=""> 56</no>	[
Dimension → Period : <no label)<br="">→ Dic 1 : Dictionary 1 NewValue : <no la<br="">Remove Clear A:</no></no>	Field a Constant constant Association ssociation	Expression/Constant 3 : <no label=""> 56</no>	[
Dimension ↓ Period : <no label:<br="">↓ Dic 1 : Dictionary 1 NewValue : <no label:<br="">Remove Clear As Express</no></no>	Field a Constant sb Constant e Association ssociation ion/Constant	Expression/Constant 3 : <no label=""> 56</no>	
Dimension Period : <no labeb<br="">Dic 1 : Dictionary 1 NewWalne < No Labeb Remove Clear As Express Move Pr</no>	Field a Constant Association ssociation ion/Constant revious	Expression/Constant 3: <no label=""> 56</no>	

You can edit expressions and constants by using the right-click menu, or by double-clicking on the value or dimension.

To input an expression for linked fields, type it in the window and then click on the **'OK'** button to confirm.

onstant		<u>×</u>
Type your Value Cor	istant :	
56		
	OK	Cancel
	UK	Lancel

The expression will be displayed next to the dimension or value to which it will be applied.

Tip! Logical expressions must be used.

To edit or input a **Constant for Values**, simply type the constant in the window and click on the **'OK'** button to confirm.

To select a **Constant for Dimensions**, select the constant from the dictionary list that is automatically displayed when you double click on the dimension that you have defined as a constant and then click **'OK'** to confirm the setting.

The 'constant' / 'value' will be displayed in the screen next to the dimension.

Step 3 Dimension Review and Fix Dependencies

This step will allow you to review all the links and fix the dependencies as well as to edit, or input, any required constants and expressions.

Dimension	Linked	Field Expression/Constant	
→ Period : <no label=""></no>	Constant	00 : Annual	
🖪 Year : <no label=""></no>	Constant	2000	
Dic 1 : Dictionary 1	Multiple Field		
∛NewValue : <no label=""></no>	Constant	2	
Dic 1			
Dic 1 A [a]			
Dic 1			

The top of the screen shows the linked fields and their expressions or constants.

By double-clicking on the fields, you can edit constants and expressions with the **'Expression Builder'** form



This form allows you to use existing functions and expressions as well as saving your own customs functions. It also shows the syntax to use for each function.

One click on **'Save'** will save the content of right frame in the Expression/Constant column of the current dimension.

If, during the operation on the form you have saved an expression to your custom functions' list (clicking on <), clicking on 'Save' will also save the expression in the appropriate file for reuse.

Click on 'save' or 'cancel' to return to the import screen

The bottom half of the screen, when appropriate, displays the dimensions or values that were linked **'separated'** (see previous pages).

You can set the dependencies of these dimensions or values by right clicking on them and selecting the dependant dimensions or values from the bottom of the menu.

Dimension	Linked	Field Expression/Constant	
→ Period : <no label=""> → Year : <no label=""> → Dic 1 : Dictionary 1 √NewValue : <no label=""></no></no></no>	Multiple Field Dependant Dimension Dependant Dimension Dependant Dimension		24
Period Year	Dic 1	NewValue	
Year Dia 1			

Enter a constant for that dimension or value (see previous page).

If you want to disable some of the combinations you can right-click and choose **'selected'** from the menu.

To re-enable it, just repeat the process.

The rest of the Complete Data Wizard behaves in a similar way to the Simple import wizard.

Steps 4 and 5 (see The Simple Import Wizard)

27.Exporting Data

27.1. Defining Views

Before you can export data, you must define **'Views'**, of the information in your Dataset that specify the information that you wish to export.



From the main EUROTRACE screen, select the Views tab.

This window displays the views for each dataset and allows you to create, edit, and define the views you wish to export.

When you create a view of a dataset, by default, all of the cells of the dataset are selected to be included in the exportation. To edit the Scope selection, choose **'Scope'** from the right-click menu.

Jinension	Link	Filter		
→ Period : <no label=""></no>	<source/>	<all></all>		
Dic 1 : Dictionary 1	<source/>	<all></all>		
NewValue : <no label=""></no>	No Filter			
lation Source Dictionary		User List	<no userlist=""></no>	
Available Codes Label	1	Selecte	ed Codes Label	
		00 💖 00	Annual	
		> 🥠 01	January	
		>> 02	February	
			March	
		Fct 04	April	
			May	
			July	
		<	August	
			July August September	

27.2. Creating EUROTRACE Editor forms

The EUROTRACE Editor works with Forms. These determine how the data, for a particular dataset, are displayed within the Editor.

Because you have to design at least one Form to be allowed to export data from a Dataset and because the Editor works only with EUROTRACE Exportation Files ('.etc' files), you must design at least one form for the Editor to work with in order to view these data.

To design a Form, start the <u>EUROTRACE DBMS</u> Application, open the domain and select the dataset you wish to export from. You can then start the dataset form editor.

27.3. Starting the dataset form editor

Right click to gain access to the shortcut menu and select the 'Dataset' Menu option, and then the 'Editor design' sub menu option.

🛃 Eurotrace : Ma	roc					
Domain Data langu	uage DataSet Op	eration Too	ls Help			
	2 🔄 🏥 🖪	1 🔊 🤬	<u>N</u> ?			
🗊 DataSet 🚮	Derived DataSet	🔪 Classificat	ion Plan			
DataSet	State		🛗 Definition 🤣 Views	s 🗙 Errors 🏠	History	Import Opera
Declaration : De	eclarati Empty Da	aSet	Destination	Operation User	Result	Date
DATASET N	New	aSet				
	Properties					
	Dataset 🕨 🕨	Structure				
	Refresh State	Scope				
	Сору	Validation				
_	Delete	Editor Desi	ign			
	Import					
	Export					
	2]		•
Ready						17:14

The editor design screen is displayed: if no form has been designed for the dataset, you get this screen:

😵 Dataset Editor Design					?_O×
	Dimension Month: <no label=""> Month: <no label=""> Trader: <no label=""> ReportingCountry : <no label=""> T. Elem: Mol abel></no></no></no></no>	•	Properties	Value	
				<u>C</u> ancel	<u></u> K

The top half of the screen shows three windows. The left window lists the available forms, the centre window lists the definition of the dataset that the form

belongs to, and the right window lists the control parameters for each control that appears on the form.

The bottom half of the screen shows the form.

27.4. To create a new form

In the left hand top list that displays the eventual existing forms, right click to access the shortcut menu and then access the 'New' menu option to create a new form: the following screen for the Form Properties is displayed.

🖀 Form properties	? ×
General Structure	
Code New Form	
Label	
Memo	
Language English	
ОК Са	ancel

You have to set at least the Code for the Form (it can be changed later). You can enter a Label that should shortly describe the Form, and a Memo if the administrator of the current domain activated the 'Memo' field.

These fields can be set for the different data languages available within the domain.

Add a Header and/or a Footer Section to a Form By default, a Form is composed of only one part called the 'Details Section'.

'Header Section' and 'Footer Section' are just subdivisions of a Form. This means that you will be allowed to make certain dimensions belong to the Header or the Footer in order to get more 'readability' when navigating through the records.

The difference between Headers and Footers is that Headers are indexed and enable you to jump quickly from one to another.

For example, a good idea is to store the dimensions that represent the key into the Header. Doing so, you can view all the records having the same key with a constant Header and you can thus focus on the Details Section.

Example: sometimes, the custom declarations have two 'levels': the main declaration and the items of the declaration. A good idea would be to put the 'declaration-level' items in the Header section and the 'item-level' items in the Details section.

Set these parameters when creating a Form by selecting the 'Structure' tab of the Properties window:

📅 Form properties	<u>? ×</u>
General Structure	
Use header	
Set as default form	
	OK Cancel

You can also specify the Form as the default one to be displayed when opening the extraction file.

When you have entered the settings of the form, click 'OK' to create it: originally, all the dimensions will be represented by a label which is the name of the dimension and a textbox containing the name of the dimension at this stage. Within the Editor, the textboxes will contain the values for the dimensions.

🚰 Dataset Editor Design				? _ 🗆 🗵
Form Label	Dimension	Properties	Value	
New Form <no label=""></no>	🧦 Trader : <no label=""></no>	Type	TextBox	
	Year: <no label=""></no>	Visible Alignment	Inue Latitustia	
	BenortingCountry : <no label=""></no>		3D	
ļ	T. Flow: Allo Labols		1	<u> </u>
	New Header Delete Header			
Trader Trader	NatureOfTransacti NatureOfTra	SupplementaryUnit	Supplement	
Y	Tama O Daliana			
Year Year	TermsOfDelivery TermsOfDeli			
Month Month	OtherPartnerCount OtherPartner			
Recetting Country Frances	Trackeld -			
ReportingCountry ReportingCo	Treshold			
Flow Flow	Value Value			
NCO Free	Junio de sur la companya			
NC6 NC8	InvoicedAmount InvoicedAm			
PartnerCountry PartnerCoun	NetMAss NetMAss			
ModeUfTransport ModeOfTran	SupplemUnit SupplemUnit			
	New Record Restore Record	Delete Record		Þ
			<u>C</u> ancel	<u><u> </u></u>

27.5. Set the section of the dimensions

The first 'logical' operation is to make the dimensions belong to the sections (if you chose to have a Header and / or a Footer Section(s).

To do that, right-click on the control: a contextual menu is displayed with the names of the sections. Select its new section: the control is then automatically moved to the upper left corner of that section.

Attention! As soon as you have assigned a control to a section, it will be no longer possible to delete that section by using the Properties windows of the form. If you want to do it, you first have to remove all the controls from that section.

27.6. Moving the controls

Click on the control and keep the left button of the mouse pressed: the control appears in blue and its border is represented by a black rectangle Keep the button pressed and move the cursor: the black rectangle moves with it, showing the new position of the control. When the new position is reached, release the button: the control itself is moved to that new position.

Trader	Trader	NatureOfTransacti	NatureOfTra	SupplementaryUni	Supplement
		TermsOfD elivery	TermsOfDeli		
		OtherPartnerCount	OtherPartner		
ReportingCountry	BenottingCo	Treshold	Treshold		

The dashed lines appearing in that process allow you to better align the controls.

27.7. Resizing the controls

It's also possible to redimension the controls and labels: by decreasing their size, you can spare some space and by increasing it, you can ensure that the values will be completely displayed.

Click on the control: it turns to blue, rounded by six small blue squares. Move your cursor to one of them (according to the direction for resizing). When the double arrow appears, click and keep the button pressed: the black rectangle appears and resizes automatically when you move the cursor. Then, release the button: the control itself is resized to the new dimensions.

27.8. Changing the appearance of items on a form

The aesthetics of the controls can be altered by right clicking in the corresponding control that appears in the top right hand window on the screen.

For example, you can change the appearance of a control box by selecting the control box by clicking on it in the form part of the screen and then by right clicking on an appearance related control parameter for the selected control box item in the scroll down list in the top right window of the screen.

Because these values are linked to the object selected on the form, changing the values in the list will change the appearance of the object on the screen.

27.9. Changing the type of the controls

Sometimes it's a good idea to change the type of the control to make it reflect the nature of the dimension it represents.

For example, a dimension based on a quite small dictionary can be represented by a dropdown list or a classical listbox.

An extra text zone can be added by selecting the type called 'TextBox with Label': this extra label will contain the label of the codes.

The new settings are automatically applied to the controls.

27.10. Adding captions and shapes

Captions and shapes are frames you can add to the form. A caption can be displayed with a free label. A shape is only a frame. So, a caption without label is the same as a shape!

You can add captions and shapes by right clicking in the central top window and using 'Add Captions' or Add Shapes' from the shortcut menu. This can be useful to group some 'topic-related' fields.

For example you could make a caption box with the text 'Time'. You could then drag and place the year and period displays inside the caption box so that the caption box neatly groups the controls that output the form's Time data.

餐 Dataset E	ditor Design				? <u>- </u>
Form	Label	Dimension	Properties	Value	▲
📝 New Form	<no label=""></no>	🛵 Trader : <no label=""></no>	💭 Туре	TextBox	
		📠 Year : <no label=""></no>	🗍 💭 Visible	True	
		↓ Month : <no label=""></no>	Create Caption ment	Left Justify	
		L ReportingCountry : <no lab<="" p=""></no>	Create Shape er	3D	-1
J		J.T. Elawy zhla Labah	Delete	2	
Year	Year	-			
Month	Month				
		New Header Delete Header			
Trader	Trader	NatureOfTransacti NatureOfTra TermsOfDelivery TermsOfDeli	SupplementaryUni Sup	plement	

To delete a shape or a caption, select it at the bottom of the list of dimensions, right-click on it and select 'Delete' (only captions and shapes can be deleted)

27.11. To select a previously created form

If one or more forms have already been designed for the dataset, the list of existing forms will be displayed in the top left hand window in the screen. To select a form for editing, click on the form in the list.

27.12. Copy a form

Select the form that you wish to copy in the list on the left hand top of the form, and then right click to access the 'Copy' shortcut menu option. Click on 'Copy' to copy the form. By default, the copy will be called 'Copy of *CodeOfOriginalForm*' where *CodeOfOriginalForm* is the code of the original Form.

27.13. Save the new Forms

Save the new forms by clicking on 'OK'. If you click on 'Cancel', your modifications will be lost.

Attention! If new forms have been created (not yet saved) and you click on 'Cancel', you will be asked to delete or save these new forms.



27.14. Delete a form

Select the form that you wish to delete in the list on the left hand top of the form, and then right click to access the 'Delete form' shortcut menu option. Click on 'OK' to delete the form.

Eurotrace	e X
?	Permanently delete form 'Copy of New Form' ?
	OK Cancel

Attention: it's a definitive deletion!

27.15. The Export Wizard

The first screen of the Wizard allows you to select an Export type.

SAM Exportation Eurotrace Editor



Choose an export format from the list and click on the **'Next'** button to continue.

N.B. If you don't see the Eurotrace Editor option, it is because you need to design a 'Dataset Form' first. To do this use the 'Dataset menu', then the submenu option called 'Dataset', then the submenu option called 'Editor Design'. Design and save a form. Then when you return to the export screen you will see the Eurotrace Editor Exportation type option as shown above.

28.Eurotrace Exportation

Step 1 Select Criteria Sets

If you select the Eurotrace Export type you will see the following screen:

View	Lo	All	Description	
✔ New View : <no label=""> ✔ New View3 : <no label=""></no></no>		None		
		Lock	l	
		New		
		Edit		
elect Available Form		17.75		
🗸 New Form		All	Description	
		None		
			-	

The screen displays the list of previously defined Views and Forms (made by using the dataset menu, then dataset submenu then Editor Design menu option).

You must select a view and a form to work with.

The buttons allow you to select all or none of the Views and all or non of the forms. You can select individual views and forms by clicking on them. Note that unselected views and forms remain unticked and that ticked views and forms indicate that they have been selected.

The Lock button locks the currently selected view so that it cannot be changed by editing. This in effect makes the view 'read –only'.

The description fields are for typing in memo text – useful for keeping track of events.

Click the 'Next' button to proceed to the next step when you have selected your view and form.
Step 2 Select an Extraction Period

The following screen is displayed:

Select a Range of Year	 Select Period From 	Criteria 🦳 Sele	ct Custom Period(s)
rom 1980 💌 To 2005 💌	Annual	1st Quarter 2nd Quarter	Jan-Feb Jany-March
Select a Custom Year List	1st Semester	3rd Quarter	Jan-April
Ausiable Vester Colocher	2nd Semester	4th Quarter	Jan-May
			Jan-June
1981	January	July	Jan-July
1982	February	August	Jan-Aug
1983	March	September	Jan-Sept
1985	April	Uctober	Jan-Uct
1986	May huma	November	Jan-Nov
1988		December	
Select TIME Vector Interval			
eriod Vana	From 1000	To 200	c la

Select either a range of years or a Custom year or years from the list on the left hand side of the screen.

Either select 'Select Period from Criteria' to use the default view scope settings or select 'Select Custom Period(s)' to select the periods from the list of possible periods displayed in the right hand side of the screen.

Click the 'Next' button to proceed to the next step when you have selected your year and period.

Step 3 Extraction Options

<pre># Exporting Data from LOAD DEMO : LOAD D</pre>	EMO DATASET	? ×
tep4 : Extraction Options		
Exportation Settings	Exportation Review	
Select your Exportation File Change	Export : Eurotrace Editor	<u></u>
C:\Program Files\Eurotrace\LOAD DEMO.etc	Exported Views :	
Default Language	New View3 : <no label=""></no>	
✓ English Français Deutsch	Time Vector : Standard From 1980 To 2005 Period from Criteria	
	Exported Forms : New Form	
Export Structure Only	Additional Dimension	
/alidation Level Code Validation	Year: Year Dic 1 : Dic 1	
Select Available 🗸 Default	Statistical Variable Dimension NewValue : NewValue	
		T

You can set your exportation file path, choose your default language, and choose the validation level.

Click on the 'Change' button to set the exportation path.

Click on the language that you require in the list of languages. Selected languages are displayed with a tick.

The 'Export Long Description' option will export the memo field as well as the language.

The 'Export Structure' option exports just the structure only.

The Validation Level drop down list has four options:

Code Validation	-
Structural	
Code Validation	
Data Definition	
Validation Rules	

Structural This option validates only the record structure.

Code validation This option validates the codes AND the record structure.

Data validation This option validates the data AND the codes AND the record structure.

Validation Rules This option validates the Validation Rules AND the data AND the codes AND the record structure.

When you have selected your exportation options click on the 'Export' button to begin the exportation.

You have the option to automatically open the export under the Eurotrace Editor programme (you need this installed).

Click on the 'Close' button after the exportation has finished.

The Exportation process reports on screen during the export process and you can also see a summary of the export in the Exportation Operation Tab on the main screen. Right click and refresh this screen if necessary (you might not have the automatic refresh switched on as a default under the tools menu).

29.EUROTRACE system options

Eurotrace has a number of configurable system wide options. To set these optional parameters, use the 'Tools' menu and then the sub menu option called 'Options'. The following screen will be displayed:

Coptions
General Background Recent Files Import / Export Back Up
Interface language English Loading one language if possible Automatic Refresh Scope State Errors History Operations
Number of Records Displayed 800 Timer Interval (ms) 20
Maintenance Email Email address
OK Cancel

29.1. The General Tab

Change the language of the Interface

To change the interface language – select the language from the drop down list box.

Automatically refresh lists

You may also choose to automatically refresh the entries in the Error, History, Operations and Scope tabs when loading a EUROTRACE domain. N.B. This automatic refresh option is available to switch on and off because having this feature switched on will extend the time it takes Eurotrace to load a domain.

Set the default number of records to be displayed

You can set the number of records that are to be displayed by typing the value in the 'Number of records displayed 'box'.

Set the Timer interval

You can set the Timer Interval in milliseconds by typing the value in the 'Timer interval (ms)'.

Load one Language if possible

You can get the software to load one language if possible by selecting the 'Loading one language if possible' check box'.

Maintenance frame

It contains an email address to which log files will be sent (Check domain from Tools menu)

N.B.: as the email address is stored in the domain database, it can be different for each domain and will not be available if no domain is opened.

29.2. The Background Tab

Change the background image

The 'Background' Tab on the options window will allow you to change the image that is displayed when you first open EUROTRACE.



Use the 'Change' button to navigate and select a new image.

The image is a local image and will not be seen by other users who open the Domain.

29.3. The Recent Files Tab (MS ACCESS domains only)

Manage the list of recently opened files

The recent files tab on the options window will allow you to manage the list of recently opened files that is displayed in the file menu.



You may change the maximum number of recently opened files to a limit of 8 as well as suppress any or the entire list.

29.4. The Import/Export Tab

Set default paths

You can set the default paths for

Importation Exportation Import URL for data dictionaries.



Click on the 'Change' buttons to reset these, or type the URL path.

Perform untyped matching field associations

You can perform untyped matching field associations if you select the 'Perform UnTyped Matching Field Association for Importation' check box. This means that

when data are imported and Eurotrace tries automatically to match the imported data to the design of the dataset it will ignore the type of data when trying to make the match between the definition of the data set and the data that it is trying to import.

This might be useful if for example, you are trying to import a file with a column of numbers defined as Text Type, instead of being defined as Integers or long integer number type.

Ensure that temporary dictionaries are used for exportation

The database administrator can ensure that temporary dictionaries are used for exportation every time an exportation is made or only when the number of dictionary codes is equal to or greater than a selected number between 3 and 500.

Select the option labeled 'Always' to always use Temporary dictionaries.

Select the option labelled 'When code selection number is up to' and then enter a number in the box to ensure that temporary dictionaries are used when the number of codes is equal to or exceeds the number you define.

29.5. The Back Up tab

Set the Backup repertory path

The back up tab allows you to set up the default locations that are used for the 'Backup Repertory Path'.



Use the 'Change' button to set this path. You can also flag a field to move the imported files to the Back Up path after importation.

30.Management of security by database administrators

30.1. How EUROTRACE manages security

Different users are assigned appropriate **<u>user profiles</u>** by the database administrator.

Each type of user profile has an associated set of **permissions.**

One profile (and its corresponding set of permissions) can be applied to many users.

A user profile can therefore be considered as a template of permissions.

By allocating the different users appropriate profiles (templates) the database administrator is in effect allocating the users appropriate sets of permissions.

These profiles which allocate the permissions can be managed by the database administrator. They can be created, copied, edited and deleted.

The database administrator therefore manages these profiles and establishes which users, get assigned which profiles, to determine their permissions.

There are therefore different types of user profile – with differing degrees of control that the database administrator can create and assign.

Advanced users will probably require more permissions and freedom than visitors or guests.

Therefore the concept of profile types is important. This is especially so because one profile type can be assigned to many users.

2 types of permissions are assigned for each type of profile

Each type of profile manages two types of permissions.

The permissions are split into two types: Object permissions and Data permissions.

Object permissions refer to permissions relating to the **structure** and definition of an object **but not the data** within the object. For example the structure of a dataset.

Data permissions refer to permissions relating to the **<u>data</u>** within an object **<u>but</u> <u>not the structure</u>** containing the object. For example the data within a dataset. The database administrator can set the permissions for each type of permission within each profile, for each object, to allow specific activities, or to disallow specific activities.

For example the database administrator can grant someone the permission to delete data from a dataset (or dictionary, etc.), but not change its structural definition.

Summary

Profiles therefore allocate two types of permission for each type of object. Object definitions and data definitions.

By defining a profile and setting the object and data definitions for the profile, it is possible for the database administrator to allocate permissions to each user as appropriate.

Some users might require individual profiles with individual permissions relating to just one person in a specific role – whereas other users might be collectively allocated a profile that is relevant to their group as a whole and thus share the same profile's permissions.

Because managing these permissions for each user requires, first of all the definition of the permissions within the profile, and then the allocation of the profile to the user, we have decided to call the process 'profile management'.

The user cannot change the definition of the profiles or allocation of them – only the database administrator is allowed to change them.

Security is therefore allocated by the database administrator who

Defines the object and data permissions within a profile Allocate a profile to the user(s) as appropriate.

Tip ! Granting all users access to change all areas of the system could be dangerous !

It's strongly recommended that the team should agree together what permissions they need in advance, so that the DBA can grant the required permissions and protect the parts of the domain that need to be protected from accidental update or deletion.

How you choose to protect your domain is up to you – but we would suggest that you do specifically consider which parts are <u>confidential</u> or <u>mission critical</u> before setting up the permissions.

Remember that the security is allowing you to do three things:

It is allowing you to

protect the **structural definition** of the domains objects **protect** the **data** within the domain **protect** access to view and import or export **confidential data**

Before setting up a 'real' working domain it is important to consider how much security you need to achieve each of these objectives and how these security measures should be applied to the users.

30.1.1.1.1.

30.2. Which objects can be protected with security?

The objects upon which **<u>both</u>** object permissions, **<u>and</u>** data permissions can be granted are:

Domains Classifications Dictionaries User lists Relations Datasets Views Rules Derived datasets System

The **object** permissions that the database administrator can grant for each type of object are:

View - all allocated users can view all the instances of objects of that type.

Create - all allocated users can create new instances of objects of that type.

Delete - all allocated users can **delete** all the instances of **objects** of that type.

Edit - all allocated users can edit all the instances of objects of that type.

The **data** permissions that the database administrator can grant for each type of object are:

View - all allocated users can view any data within objects of that type.

Create - all allocated users can **create** new instances of **data** within any objects of that type.

Delete - all allocated users can **delete** any of the instances of **data** in all objects of that type.

Edit - all allocated users can **edit** any of the **data** in objects of that type. 261

31.Tools Menu

The Tools menu contains several options enabling the users management (Under MS ACCESS only), the data access (direct access to the database tables, under MS ACCESS only) and the running of add-ins programs.

31.1. Creating, deleting, copying and renaming profiles (MS ACCESS only)

Open a previously created domain.

N. B. If you have just created a new domain - you have to first log out and re-log back into the domain. To do this use the 'Domain' Menu and log on as a different user' menu option and then log back in as 'Admin' using the Admin password you gave when creating the domain. Then you will be able to create delete copy and rename profiles. The system won't let you do this the first time you create a domain until you have logged out of the domain and then re-opened the domain.

Select the 'Users Definition' Menu option from the Tools Menu.

You will see the following screen:



Click on the button marked 'Edit Profile' to display the following profile management screen.

Profile		Add Profil Remove Profil		
Administrator Guest Manager -				
User	[Copy select	ed profile	
Dataset	Action	On objects		
Validation	Create	Yes Yes		
Derivation	Delete	Yes		
Dictionnary	1600	165		
Userlist				
Relation				
View				
System				

N.B. Please note that each time a new domain is created the system will automatically create 4 levels of profile each with its own set of default permissions. These 4 levels are:

Administrator: Manager: User: Guest:

The Profile list displays a list of current profiles for the Domain. Click on a profile to select one. The right hand side of the screen shows the permissions granted for the selected profile. Three buttons above the permissions allow the database administrator to add a new profile, or remove or copy an existing profile.

Adding a new profile

Click on the button marked 'Add Profile'

×
ОК
Cancel

Enter the new Profile name i.e. 'Visitor' and the new profile is added to the list of profiles in the left hand window.

To set the permissions for the profile you must select the profile in the profile list by clicking on it.

Profile		.	A	dd Profil
Manager User Guest		T	Ren	nove Profi
STAGIARE		-	Copy se	elected pr
Domain	ОЫ	View	Create	9
Dataset	Create Modifu	No No	No No	
Derivation	Delete	No	No	
Dictionnary	View	INUS	INU	
Userlist				
Relation				
View				
System				
	1.15	ПК		Cancel

The right hand window will show that by default when you add a new domain all permissions are automatically refused (set to 'No'). These can be changed by clicking on the permissions as required to toggle them from a 'No' state to a 'Yes' state in order to grant the selected permission.

To change a "No' to a 'Yes' just click on the word 'No' and it will toggle to become a 'Yes'.

To change a "Yes' back to a 'No' just click on the word 'Yes' and it will toggle to revert back to a 'No'.

Remove a new profile

Select the Profile to be removed, by clicking on it in the left hand window.

Profile		•	A	dd Profil	
Manager User Guest			Rer	nove Profil	
STAGIARE		-		Copy selected pro	
Domain	ОБј \	/iew	Create	8	
Dataset	Create Modifu	r'es No	No No		
Derivation	Delete	No	No		
Dictionnary	View	NO	NO		
Userlist					
Relation					
View					
System					

Click on the button marked 'Remove Profile'.

The profile is deleted. N.B You can't delete the four default profiles Admin, Manager, User, or Guest. These are protected.

Copy a selected new profile

Select the Profile to be copied, by clicking on it in the left hand window.

Click on the button marked 'copy Selected Profile'.

ew profile	<u>></u>
Enter the new profile name :	OK Cancel
Team Number Two	

Enter the new Profile name i.e. 'Users level 2' and the new profile is added to the list of profiles in the left hand window.

Whenever you create a new Profile, remove a profile or copy and rename and existing profile, the domain's list of profiles is automatically updated. You can then assign the template to the users and grant them the permissions that they need.

When you have finished creating, copying and deleting your domain's profiles, click on the 'OK' button to return to the User Management screen.

31.2. Managing users – profiles and passwords.

The User Management screen is where the database administrator manages the users of the domain.

Open a previously defined domain.

Select the 'Users Definition' menu option from the 'Tools' menu. The Users Management screen is displayed.

The Window lists all of the current users for the domain.

ionio	Auu
dministrator ser	Remove
anager anager	Clear Password
ser uest	Edit
anager anager	
dministrator	
	dministrator ser lanager ser uest lanager lanager dministrator

Adding a new user

To add a new user to the Domain, the database administrator should click on the 'Add' button. The following small window appears with a drop down list box.

Name	New	User
Profil	Admir	nistrator 💌
ОК		Cancel

In the top box enter the name of the New User.

a, Add new	user	x
Name	New User	
Profil	Administrator	-
	Administrator	
OK	Manager	
	User	

In the bottom drop down list box select the profile that you wish to assign to the user.

N.B. Remember that the profile that you assign will determine the permissions that the user has to change the structure of objects and also the data within the objects. It is therefore essential that you grant the appropriate rights by assigning an appropriate profile.

Click on the 'OK' button.

Removing a user

To remove a user, select them in the window list, then click on the button marked 'Remove'. The user will then be removed from the Domain and they will not be able to access the domain unless they are re-instated by the database administrator.

Changing a user's profile

To change the profile of a user by re- assigning their profile – select the user in the list and then click on the button marked 'Edit'.

The profile assignment window will display again and the database administrator can assign the existing user a different profile by selecting one from the drop down list.

Managing user's passwords

The database administrator has the power to clear an existing users password.

This means that if a user has forgotten their password the database administrator can clear their old password and let them log in to the domain and provide a new password.

To clear a user's password

Selects the 'User Definition' menu option from the 'Tools' menu.

Select the User from the list.

Click on the button labelled 'Clear Password'.

The password for that user is cleared and the next time the user logs into the domain they will be prompted to provide a new password.

N.B. If the 'Clear Password' button is Grey and unavailable it is because the user has not yet logged into the domain and provided a password, or you do not have database administrator status to use the function

32.Backing up and restoring domains.

Eurotrace has fast and efficient domain backup and restore functionality.

You can backup your entire domain and all its associated files in a directory path of your choosing. This may be a local path, or a network path to a location that is not on your PC.

Similarly you can navigate to a previously backed up domain and choose to restore it either locally on your PC, or to a different network location.

It is therefore possible to select a backed up domain on a colleague's PC and to restore the domain on a different colleague's PC. However most users would probably want to work with local Backups and locally re-installed domains.

Eurotrace manages the backup and restore by making use of 'Zipped' files. These zipped files contain all of the domain's files, in a single compressed file format. This considerably improves the performance of the Eurotrace backup and restore system as well as reducing network traffic when working with network locations.

All users normally have the rights and permissions granted from the database administrator to make a backup of the domain.

Restoring a previously backed up domain requires caution – because the user has the option to overwrite the existing domain (See restoring a Domain below). For this reason database administrators should think carefully about granting users the rights and permissions to restore and overwrite current data.

32.1. Creating a backup of a domain

Open the domain.

From the 'Tools' menu select the menu item 'Domain Backup/Restore'.

The following screen is displayed.

Current Domain		Restore	
Domain Path:	C:1		
Backup Restore Archiv	ve Table		
Select Destinati	ion Director	v	
Select Destination Please select an existing is to be stored. Archive File	ion Director	new Filename wh	ere the Archive file
Select Destination Please select an existin is to be stored. Archive File CAProgram Files\Euro	on Director ag Directory and otrace\Backup\PF	y new Filename wh OFILE DEMO_51	ere the Archive file 22002.zip Browse

With the Backup Tab selected, click on the button marked 'Browse' and navigate to the location where you want to write your backup zip file of the Domain.

Type in the name that you wish to call the backup zip file and click on the button marked 'open'. Alternatively, just type in a DOS format path in the Archive File text entry box.

Remember that network locations are prefixed by two backwards slashes like this \\ and then the path. The Domain backup and restore screen is displayed with the path to the backup file that is to be created in the Archive file box.

Check that this is correct and then click on the button labelled 'Backup' in the bottom left hand corner of the screen.

If the file already exists, you will be asked whether you wish to overwrite the existing backup file.

If you want to overwrite the existing file click on the button labelled 'OK' if you wish to cancel the overwrite and give the backup file a different name – click on the cancel button and then rename the backup file and click on the backup button once more.



When the backup has been completed you will receive a message screen to confirm what has been backed up and where it was backed up.

Now that the domain is safely backed up – you can restore it at some time in the future to another location.

32.2. Restoring a domain

When a Domain backup is made an archive listing is made. When you restore an archive, you can select the archive to be restored from this listing, or you can navigate to the file to be restored.

Select 'Domain Backup/Restore' menu option from the Tools Menu.

Select The Restore Tab.

Current D	omain: RESTORE EXAMPLE	
)omain Path	C:1	
ackup Re	store Archive Table	
Archive	Listing - Mouse click on an Entry below to sele	t the Archive to Restore.
Userid	Archive	Created
and the second second		
Admin	C:VDOC EXAMPLE the file to be restored.zip	05/12/2002 11:37:25
Admin	C:DOC EXAMPLEthe file to be restored.zip	05/12/2002 11:37:25
Admin	C:DOC EXAMPLEthe file to be restored.zip	05/12/2002 11:37:25

To select the .Zip file to restore, click on the 'Browse' button. Navigate to and then select the file you wish to restore.

If you are sure that you want to overwrite the currently active domain click in the check box in the lower left hand corner of the screen.

The current domain will close.

Attention !

You now have the option to choose all of the domain to be restored (in which case, you select all of the files) or, alternatively you can choose to only restore selected files within the domain (in which case you select the appropriate files, when the above screen is shown).

This extra degree of flexibility could be useful to the more advanced database administrators.

You will be prompted to select the components to restore.

elected Archive: C:\DOC E>	(AMPLE\cd2.zip			
File Name	File Path	Date	Time	File Size
CUSTOMS DATA 2.6ki	DOC EXAMPLE7	28/01/00	12:25	1825
CUSTOMS DATA 2.dom	DOC EXAMPLE/	05/12/02	11:44	270336
CUSTOMS DATA 2.mac	DOC EXAMPLE/	05/12/02	11:43	49152
CUSTOMS DATA 2 ple	DOC EXAMPLE/	05/12/02	11:43	92160
lease make your selections by i	clicking on the Box next to	the required files.		OK
				Cancel

The backed up domain will be unzipped and will overwrite the existing domain if you had ticked the overwrite existing domain box in the previous step – if not a new domain will be created at the location that you specify when prompted.

nter alternate Path location for Domain restore:	OK
	Cancel
	Cance

When the domain has been restored, or when the selected components of the domain have been restored, you will see this message:



To open the restored domain you will need to navigate to its location , open it and provide the correct login and passwords.

Once you have provided the User ID and login password the restored domain will be the current domain.

N.B. If you applied password protection to your Domain when it was originally created **and** you clicked in the Domain Security Tab to save the password in the .PLC file, the domain will open, without you providing the domain password, after you have provided your User id and user password.



If you did not save the password in the .PLC file, you will have to provide the domain password to open the domain, after you have provided your user Id and your user password.

Therefore when you restore a domain – the same password protection is applied as when you open a domain normally.

The process works in the same way as normally opening a domain. Whether or not you get prompted for a domain password, will depend upon whether you saved the password in the .PLC file or whether you did not save the password in the .PLC file.



For more on password protection of domains see the Chapter 9.3 Domain Security.

Essentially, then restoring a domain works just like normally opening a domain. The levels of security will be the same as those applied when you created the domain, and you will, or will not be, prompted for a domain password accordingly.

32.3. Managing the domain archive list

Use the 'Tools' Menu 'Backup / Restore' menu option and Archive List Tab to manage the contents of the archive list.

Archive Listing - Mouse click on Entry then select Delete to remove from tak Userid Archive Admin C:VDOC EXAMPLEthe file to be restored.zip 05/12/2002 11:37:25	m table.		tore Archive Table	ackup Res
Archive Listing - Mouse click on Entry then select Delete to remove from tab Userid Archive Created Admin C:VDOC EXAMPLEthe file to be restored.zip 05/12/2002 11:37:25	m table.			
Admin C:VDOC EXAMPLE the file to be restored zip 05/12/2002 11:37:25		then select Delete to remove from to Created	Listing - Mouse click on Entry 1 Archive	Userid
	37:25	be restored.zip 05/12/2002 11:37:	C:VDOC EXAMPLE the file to	Admin

To delete an entry from the archive – select the entry to be deleted and click on the 'delete button'. The 'Refresh' button will ensure that you have the most up to date entries in the list, after you have deleted an entry.

The Exit button exits the Domain Backup and Restore facilities.

32.4. Direct data manipulation and text file interpreters

Under this sub section of the tools menu, several option for direct data access. These options are available only when the database is an MS ACCESS database.

32.5. Console

🗏 Console SQL 📃 🗖 🔀
Conventions Action Structure Selection
Console SQL Syntax :
Type [Data] Only to browse Current table on Selection Mode
Based Table (refering to 'Apply On' ComboBox) : [Data] Other Detect : [Dat (Detect Code)]
Other Dictionary : [Dic_ <dictionary code="">]</dictionary>
Other Relation : [Dic_ <relation code="">]</relation>
External Table : [Ext_ <table name="">] in UserTable.mdb</table>
User Parameter · #Your Question?#
MultiFile Dimension Value : @ <dimension>@</dimension>
All Dataset Fields must Use Existing Field Names
Dictionaries Fields are :
[Code] for used Code
[Lib_<<2 Digits Langage>>] for Label
[memo_<<2 Digits Langage>>] for Memo long information
Close Execute

When opening the console, the first tab is displaying the SQL syntax to be used for the data manipulation. In addition, the following tabs are availables: Action Structure Selection WARNING: The actions done via the console are under the responsibilities of the user.

responsibilities of the user. The integrity of the database can not be ensure by the system as it is a direct access to the data.

32.6. Action tab

The Action tab will display a text box where user can type the SQL for the data manipulation. When using this action tab, user must be aware of the "objects names" of the classification plan (Dictionaries and relations) and of the data sets.

🖴 Console SQL	
Conventions Action Structure Selection	
Type your SQL Statment	~
	~
Click on Execute to start processing	~
	~
Close	Execute

32.7. Structure tab

The Structure tab will display the list of all the "objects" available in the domain (Classification plan and data sets). The selection of an object in the list will enable the data manipulation of this specific object.



domain (Clas Select query.

🛛 Console	SQL	
Conventions	Action Structure Selection	
Apply On :	📮 CUSTOMS : CUSTOMS DATA	•
Type yo	CUSTOMS : CUSTOMS DATA	<u>^</u>

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32.9. Compact (MS ACCESS only)

This option, only available under MS ACCESS will compact the database.

32.10. Text file interpreters

The text file interpreters will enable user to define text files structure. When the sources data file are in text format, Eurotrace need to "read" the structure of the text file. The text file interpreters dialog box will make easier the creation of the "BKI" file which describe the structure of the text files to be loaded into the system..

The interface allows:

To modify the different parameters contained in the 'schema.bki' file To create a new import format To delete an import format

For Oracle and SQL server domains, the modifications are applied to the BKI file stored in the system directory.

For Access domain, the modifications are applied to the BKI file stored with the DOM file.

🖬 Text file interpreters				
List of formats CSV Comma Values CSV Dot Values Statra291 COMEXT Dat File DocMeth400 New Format	Properties of for Name: New Column he Choose the Tab Field information Col1 Col2 Col3	rmat Format eader delimiter that separates your © Semicolon (;) Field Name code product country	fields Comma (,) Data Type Text Text Text	Decimal symbol Point (.) Comma (.) Space Other
Add Delete	Add new r	ow Delete row		Cancel OK

The "Add" button create a new format

The "Add new row" button create a new column field. Double-clicking on the dialog is possible to choose name, data type and width of the new field.

Very important is the section "Choose the delimiter that separates your fields": choose the right fields separator (tab, comma etc) to allow the application to read correctly your input file.

33.New Add-Ins

Eurotrace previously allowed to launch external programs from it's interface. These options were used to generate text files from datasets and /or to populate an existing dataset based on internal data source (other dataset). These functions can now be defined and executed within Eurotrace under the New Add-Ins function.

Tools	Help		
Cha Che Dor Upo Exp Use	ange PassWord eck Domain nain Backup/Restore date Domain ort Domain to DBMS ers Definition	•	
Exe Con Tex	cute SQL npact t file interpreters		
Ado	l-Ins New	×	Create New Add-Ins
Opt	ions	_	Edit Existing Add-Ins Run / Delete Add-Ins

The User can create his own Add-Ins selecting dimensions and several operations between values.



33.1. Create a new Add-In

This action will open a new dialog to be used to set the informations needed to build the Add-In.

Create New Add-Ins	\mathbf{X}
Name Source DataSet Ballkan2	eurostat
Destination © Existing DataSet © File Existing Dataset	
New Dataset	Copyrgin & 2007 Europadin Canoninalan
File Browse Separator © Tab O ; O , O D Header	
Calculated Elements / Values	
All Value / Value V	Dimensions Name
Added Calculations	
Delete	Add Update
Keys	led Keus
Dimension	Delete
Constant value	Add
Additional Calculations Image: NbTrans Image: AvgTrans	Clear Close Save

Insert the name for the Add-In in the Name field and select the source dataset on which the Add-In will be based from the *Source DataSet* drop-down list.

In the *Destination* section you choose the kind of output:

Existing Dataset: select from the drop-down list the existing dataset you wish as output

New dataset: insert into the *New Dataset* field the name for the output dataset. The structure of the new dataset will be created automatically saving the Add-In.

Text file: Browse the path and name for the output file clicking on the *Browse* button. Then choose the kind of separator between fields. If you want to include in the file an header with the columns title, select the *Header* box.

Select the values dimensions and the operations between the values in the *Calculated elements/Values* section.

In this sections are listed the value dimensions of the source dataset. The value dimensions can be selected as simple value or combined together using different kind of computations as shown in the drop-down list on the left of the section:

All (Minimum – Maximum – Average)

Minimum value of the computation

Maximum value of the computation

Average value of the computation

Value of the dimension

Operation value computed using the dimension and the constant value specified in the constant field

Calculated Ele	ments / Values		
	Value	•	7
All Minimum Maximum Average Value Operation	ions] [

The list of operations allowed between values dimensions is shown in the drop-down list between the dimensions lists:

Multiply by

Divide by

Sum

Difference



For each calculated elements you want to add select first the kind of computation, e.g. minimum

Select then from the dimensions drop-down list the first value to be used in the computation.

If the computation selected is **Value** click on the *Add* button to confirm the choice, if not select from the operations drop-down list the operation to be performed between values.

If the computation selected is **Operation** insert the constant value to be used in the constant field, then click on the *Add* button to confirm the choice.

If the computation selected is not **Operation**, select from the second dimensions drop-down list the second value to be used in the computation.

Click on the *Add* button to confirm the choice. You will be prompted with a confirmation message



A default name is given to the computation that will correspond to a dimension in the dataset of destination. The name is added to the drop-down list *Added Calculation*, listing all the dimensions selected for the Add-In.

	Added Calculations	Constant
	AVQuantityMULTValue	Delete
L	MINValueDIVQuantity	
_	MAXValueDIVQuantity	
	AWalueDIVQuantity	
	AVQuantityMULTValue	

To **rename** a dimension select the dimension in the drop-down list *Added Calculation* and write a new name in the *Dimension Name* field.

Click on the *Update* button and the *Added Calculation* drop-down list will display the new name for the selected dimension.

Now select the key dimensions for the Add-In in the *Keys* section.

In this sections are listed the key dimensions of the source dataset in the *Dimension* drop-down list.

Keys ▼ Dimension Product ▼ ■ Relation ▼	Added Keys K Product Delete
Constant value	Add

To use a relation for the selected key check the *Relation* option and select the proper relation from the *Relation* drop-down list.

Keys			
Dimension	NSTR	Relation relTest	•

Click on the *Add* button to confirm the choice.

The key is added to the drop-down list *Added Keys*, listing all the keys selected for the Add-In

Added Keys	
K Product	Delete
K Pref	
K NSTR R NSTR using rel. relTest from NSTR	Add

Then you will be prompted with a confirmation message.



To confirm the selections and create the Add-In click on the **Save** button. If you want to restart the procedure click on the *Clear* button. All the fields will be deleted and you can restart the selections.

33.2. Edit an existing Add-In

To edit an existing Add-In select the menu item *Tools – Add-Ins New – Edit* existing Add-Ins



This action will open a new dialog with the list of available Add-Ins.

🖋 Available Ad	dins			×
Addin testAddin	Source DS Ballkan2	Destination testDataset	Output Dataset	I
		Close	Select	

Select the Add-In you wish to edit and click on the *Select* button.

This action will open the Edit Add-Ins dialog with all the parameters of the selected Add-In.

🖻 Edit Add-l	ns	
Name Source DataSet	testAddin	eurostat
► Edit Adduns Name VestAddin Source DataSet () Balkan2 □ Existing DataSet ○ New DataSet □ Existing DataSet ○ New DataSet □ Existing DataSet ○ New DataSet □ New Dataset ○ □ Fee Browse □ File Browse □ Separator ○ □ Calculated Elements / Values □ □ MinvalueDIVQuantity □ Dielete MINValueDIVQuantity □ Dielete ▲ddd Calculations ▲dded Kays ✓ Dimension ✓ Relation ✓ Dimension ✓ Nate △ Added Kays ✓ Pather ✓ Dimension ✓ Adde		
C Existing	j DataSet 🕜 New DataSet 🕜 File	EUROTRACE
Existing D	kan2	Copyright © 2002 European Commission
New Dat	aset Dataset	
- File	Browse	
Separal	tor @ Tab C ; C , C 🔽 🗖 Header	
Calculated Ele	ements / Values	
Name testAddin Source DataSet Ballkan2 Destination Existing DataSet Existing DataSet Rew DataSet Palkan2 Image: Second Secon		
Added Colorda	Constant	,
MINValueDIV	Quantity Delete	Add Update
Keys		
🔽 Dimensio	n xxxxx	Added Keys
		K Partner Delete
Constant	value	Add
> Edit Add-Ins Name Image: Source DataSet Balkan2 Destination C Editing DataSet Place Image: Source DataSet Pail and the source of the comparison of the comparison of the source of the comparison of the source of the source of the comparison of the source of th		
✓ NbTrans	✓ AvgTrans	Close Save

To add a calculated element or key dimension just proceed as in the previous section *Create a new Add-In*.

To **delete** a dimension, select the dimension in the drop-down list *Added Calculation*.

Click on the *Delete* button and on the *Yes* button to confirm the deletion.

The dimension will be removed from the *Added Calculation* drop-down list.

To **rename** a dimension select the dimension in the drop-down list *Added Calculation* and write a new name in the *Dimension Name* field.

Click on the *Update* button and the *Added Calculation* drop-down list will display the new name for the selected dimension.

To **delete** a key, select the key in the drop-down list *Added Keys*.

Click on the *Delete* button and on the *Yes* button to confirm the deletion.

The dimension has been removed from the Added Keys drop-down list.

To save the changes click on the **Save** button. To discard the changes, click on the **Close** button.

33.3. Delete an Add-In

To delete an Add-In click on the *Tools-AddIns-Run/Delete Add-Ins* menu item



This action will open a new dialog with the list of available Add-Ins.

🖋 Available Ad	dins		X
Addin testAddin	dins Source DS Ballkan2	Destination testDataset	Output Dataset
	Close	Remove	e Select

Select the Add-In you wish to delete and click on the **Delete** button. Answer Yes to the question "Do you want to deleted the selected Add-In?" And the Add-In will be removed from the list.

33.4. Run Add-In

To run an Add-In click on the Tools-AddIns-Run/Delete Add-Ins menu item

🔀 Eurotrace - Ballkan			×
Domain Language DataSet 1	Tools Help		
DataSet State Ballkan2: <n large="" n<="" td=""><td>Change PassWord Check Domain Domain Backup/Restore Update Domain Export Domain to DBMS Users Definition Console Execute SQL Compact Toxt figure interpreters</td><td>nition 🤣 Views 🗙 Errors 😭 History 🔩 Import Or Period : <no label=""> /ear : <no label=""> Declarant : <no label=""> Partner : <no label=""> Product : <no label=""> Flow : <no label=""></no></no></no></no></no></no></td><td></td></n>	Change PassWord Check Domain Domain Backup/Restore Update Domain Export Domain to DBMS Users Definition Console Execute SQL Compact Toxt figure interpreters	nition 🤣 Views 🗙 Errors 😭 History 🔩 Import Or Period : <no label=""> /ear : <no label=""> Declarant : <no label=""> Partner : <no label=""> Product : <no label=""> Flow : <no label=""></no></no></no></no></no></no>	
-	Add-Ins New Add-Ins New Options	Create New Add-Ins Edit Existing Add-Ins Run / Delete Add-Ins FransNat : <no label=""> NSTR : <no label=""> Value : <no label=""> Quantity : <no label=""> SuppQuantity : <no label=""> SuppUnit : <no label=""></no></no></no></no></no></no>	
Ready		9:30 AM	

This action will open a new dialog with the list of available Add-Ins.

🖋 Available Ad	dins		X
Addin	Source DS	Destination	Output
testAddin	Ballkan2	testD at a set	Dataset
	Close	Remove	e Select

Select the Add-In you wish to delete and click on the **Select** button.

This action will open the *Select Period* dialog that displays the available periods and years for the selected Add-In

🖋 Select p	eriod		
	2008	2007	Excluded range
	All	All	
January			
February			
March			
April			Confidence range
May			
June			
July			
August			
September			
October			
November			
December			
Jan-Feb			
Jany-March			
Jan-April			
Jan-Mau			▼
			Cancel Clear Run

Choose the periods and years to be used for the computation. You can select one single period clicking on the corresponding cell, or one year clicking on the *All* cell. The periods selected will be displayed in green.

To start the process click on the **Run** button.

When the computation is finished the application displays the "Process terminated" message.

34. COMEXT Exportation

This functionnality allows the exportation of a Dataset in the COMEXT Matrix format. All the data can then be accessible to the COMEXT application. The user can export a full Dataset or a View of a Dataset.

To export the full Dataset, don't select the View tab in the managing domain screen before running the operation.

🛃 Eurotrace - GTD		
Domaine Langue Dataset Outils Aide		
DB 🛛 🗙 🖗 🖬 🖉 🍇	<u><u>N</u>?</u>	
🗇 Dataset 🖶 Dataset dérivé 😽 Plan de clas	sification	
Dataset Etat	💼 Définition 🍫 Vues 🗙 Erreurs 🏠 Historique 🤹 Opération d'import 🔩 Opération d'exportation 躇 Flux d'Informations	
Declarations Cellule 2001/M	E-LA Solit (No.) abeb	
Declarations Cellule 2001/M		
🗇 New Dataset Cellules 29/ D	- Period : <no label=""></no>	
PER BEC : P Cellule 386280/		
TAUX CHAN Cellule 29/ enre	- D00071 : Customs Unit Code	
	D00074 : Punkt	
	D0032 : ItemNb	
	- 🔂 D00021 : Exporter Register	
	- 🛱 D00161 : Origin Country	
	一 晒 D00171 : Destination Country	
	一	
	一 • • • • • • • • • • • • • • • • • • •	
	V DUU313: NetMass	
	IN DUU313 Supplementary Unit	
	HM DUUTS :: Last snipment Country	
	D00372: Basic Lustom Procedure	
	Fin DOUSTO : Previou de la unteres regime	
	En DOUGE Staticial Value	
	- For D00543 - date	
	- To Value Som : Value Som	

To export a View of a Dataset, select a View in the View tab in the managing domain screen before running the operation.



In the 'Dataset' menu, select the 'COMEXT Export' sub-menu.

<u>N</u> ew Properties DataSet ► Refresh State Copy Delete	
<u>I</u> mport <u>E</u> xport	
CO <u>M</u> EXT Export	

Select the directory and the filename to store the exported Matrix file.
Save your Come	kt matrix file				<u>?</u> ×
Save jn:	SA PSA		•	🗢 🗈 💣 🛄	
History Desktop My Computer	SAD.MTX				
My Network P	 File <u>n</u> ame: Save as <u>t</u> ype:	SAD Comext matrix files (*.MTX]	•	<u>Save</u> Cancel
					11

Click on 'Save' to perform the exportation or on 'Cancel' to cancel the operation.

Then the application performs the exportation to the COMEXT format and prompts a message to inform the user of the result of the operation.