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# STNE Bulletin - 2002

## Editorial

The present edition of the STNE Bulletin presents the progress that has been made with various projects of Eurostat since the first issue of 2001.

The first article presents **STATELight**. This is a set of servlets that allows a user upload or download files to a server using a simple browser while benefiting from most of STATEL's unique functionality (controlled and reliable transmission of files of any size, door-to-door encryption). STATELight can be used by organisations that send only a few data to Eurostat. It will be soon put in operation.

Next article presents a table with **TESTA** connectivity status with National Networks in member states as well as known usage by National Statistical Institutes. TESTA is the telecommunications network used by European public administrations to connect to the European Commission.

Next comes the activity report of Eurostat's help desk, **ECAS-HD**. This has already reached 18 months of successful operation, as indicated by user satisfaction reports. Intervention statistics are presented in this article.

Furthermore a new application has been developed that allows to access the contents of the **EDIFLOW** database. EDIFLOW is the official inventory of all the dataflows exchanged between Eurostat and its data respondents. The application is hosted by the Data Centre of the European Commission and Local Co-ordinators will be allowed to update national data via a web interface.

Next article presents **GENEDI**, a generic tool for preparing GESMES or GESMES/CB files and sending them to Eurostat. GENEDI is provided free to member states and is recently being supported by ECAS/HD.

**CIRCA** Version 3.1 is quite some time in operation and performs well. The article on CIRCA provides an outlook of improvements in version 3.2, which will be launched in Q1 of year 2003.

The next two articles provide an overview of two TES seminar programmes. The first was presenting our data transmission tools and services and took place in November 2002. The second one was presenting "New Advanced Technologies for Data Collection" and took place in October 2002. Both seminar will be repeated in 2003.

Finally, the last article presents a table with the new Local Co-ordinators from candidate countries that have joined the group at the end of 2002. The group has now 13 new members.

This Bulletin was completed with the active and continuous support, and final approval of the responsible project officers and contractors of EUROSTAT. We would like to thank them for their active interest and help.

We hope you enjoy this issue. Your comments and suggestions are always welcome.

Wolfgang Knüppel

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## STATELight – an alternative to STATEL for file transfer

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STATEL is traditionally used for a secure and reliable transfer of files of an arbitrary size in connection with STADIUM, the service put in place by Eurostat for the transmission of statistical data. This article presents STATELight, which is a set of servlets that provide equivalent functionality to STATEL as regards file transfer. STATELight is useful for organisations that do not transmit regularly statistical data to Eurostat and do not have a STADIUM Web Client installation.

The STATELight Receive servlet was designed to allow Java applets to upload files of arbitrary size to the server without user intervention, using an API. It ensures that files that have been partially transferred are not accidentally used by the receiving process. The STATELight Transmit servlet enables the application to download a file from the server using an API instead of a browser built-in.

Both servlets offer full control of the destination file name, a directory service and simple user identification, making them useful for the development of browser-based applications that exchange files with a server.

### Basic functionality

The servlets are written in Java and have been tested on Jakarta-Tomcat. They should however be usable with all standards compliant servlet engines.

The files to be uploaded or downloaded are split in a number of packets that are protected by a checksum. Packets are transmitted in sequence using a strict data/acknowledgement approach, meaning that a packet needs to be acknowledged by the receiving party before the next packet is transmitted. This approach favours simplicity over performance.

In order to avoid the use of hand-coded conversion routines adapted to HTTP, and to allow the use of other protocols as and when they become available, STATELight uses serialisation to convert the packet object to a format that can be transmitted or stored on disk. The STATELight packet object is defined in Figure 1.

```
public class StateLPacket implements java.io.Serializable
{
    // data members
    private int type; // The type of packet (data,ack, etc.)
    private byte[] data; // The data itself
    private int size; // The size of the data data
    private int number; // The packet number
    private long cksum; // The checksum

    // constants
    public interface TYPE
    {
        int
        DATA = 0,
        BEGIN = 1,
        END = 2,
        DIR = 3,
        USER = 7,
        ACK = 9,
        NACK = 11,
        ERR = 13;
    }
}
```

*Figure 1: Basic STATELight packet layout*

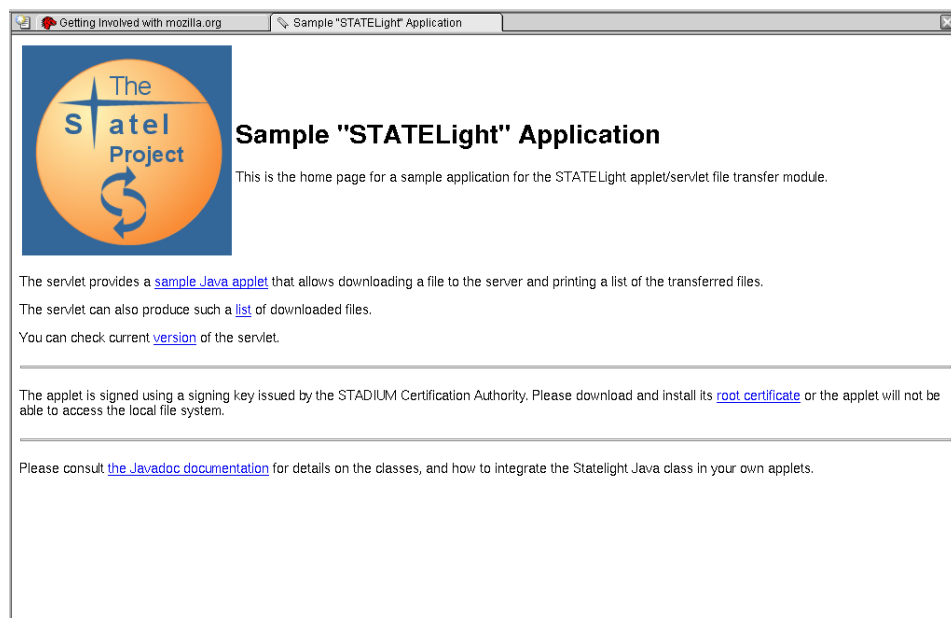
The java.io.Serializable API used in is a framework for encoding objects as byte streams and reconstructing them from this byte stream encoding. Once an object has been serialized (encoded), it can be transmitted from one virtual machine to another, in our case to support the exchange of packets between the servlet and the applet. The STATELight modules have been designed to enable a reliable file transfer between the browser and the server. The transfer is based on a simple protocol, allowing packets to be retransmitted in case they were damaged or lost in transit.

The transfer is performed through an API, which allows the applet to control the process. The browser's built-in data upload or download facilities do not provide any control and do not provide information about success or failure of the transfer.

The files are received in a transit area before being moved to their final location. This simplifies the task of the application or facility on the server or client that process the received file. This ensures that files appearing in the destination directories are complete.

## Built-in test applets

STATELight servlets support a sample applet that can be used to demonstrate the functionality. The servlet itself will load the applet to the browser if accessed without parameters.




*Figure 2: STATELight sample home page*

Figure 2 shows a simple Web page used to demonstrate the STATELight Upload servlet. In addition to supporting the uploading of files to the server, the servlet also provides a function to produce a HTML page listing of the files that have been transferred (see Figure 3) and a HTML page with the version number of the applet.

Getting Involved with mozilla.org

STATELight File List

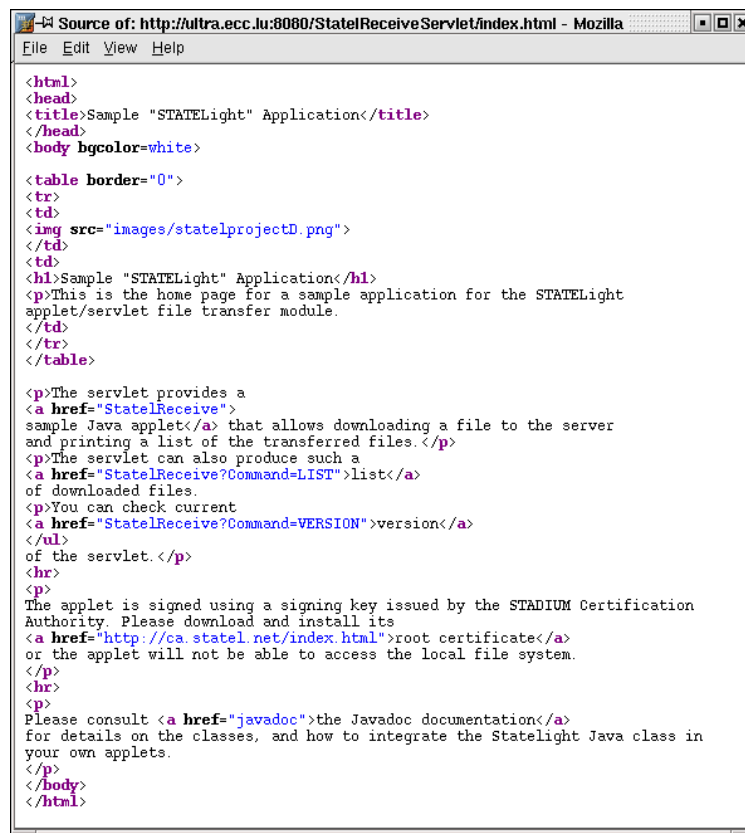


STATELight File List

Name	Size	Modified
<b>gonzo</b>		
Eeckels_on_the_Web.html	3233	13-Nov-2002 01:23
README.oracle	3355	13-Nov-2002 18:11
FVS318_ReferenceManual.zip	630760	14-Nov-2002 00:00
<b>waffle</b>		
machtype.sh	2311	13-Nov-2002 23:47
capture.log	11574	13-Nov-2002 23:54
Fax0105.aw	8598	13-Nov-2002 23:59
<b>Bozo the clown</b>		
popt-1.5-sol8-sparc-local	99569	14-Nov-2002 17:18
<b>sae</b>		
Sudden Deafness.doc	34816	13-Nov-2002 01:17
bet2N4c.fig	1664	12-Nov-2002 17:27
cgi-lib2.pl.txt	15101	11-Nov-2002 23:52
OpenSTATEL.eps	38539	11-Nov-2002 10:04
work_unit.sah	356280	11-Nov-2002 13:37
balloon.joke	1116	13-Nov-2002 18:00
classtad	4554	13-Nov-2002 18:23
foo.zip	1497	13-Nov-2002 18:23
netgearJ.cfg	65536	13-Nov-2002 18:34
Invoice9800.aw	7522	13-Nov-2002 23:59
rich2.uue	28252	14-Nov-2002 00:17
realworld.html	18749	14-Nov-2002 01:09
README.TXT	4386	14-Nov-2002 02:00

Figure 3: HTML listing of STATELight uploaded files

The source code for the above page is shown in Figure 4.



```

<html>
<head>
<title>Sample "STATELight" Application</title>
</head>
<body bgcolor=white>

<table border="0">
<tr>
<td>

</td>
<td>
<h1>Sample "STATELight" Application</h1>
<p>This is the home page for a sample application for the STATELight
applet/servlet file transfer module.
</td>
</tr>
</table>

<p>The servlet provides a
<a href="StatelReceive">
sample Java applet</a> that allows downloading a file to the server
and printing a list of the transferred files.</p>
<p>The servlet can also produce such a
<a href="StatelReceive?Command=LIST">list</a>
of downloaded files.
<p>You can check current
<a href="StatelReceive?Command=VERSION">version</a>
of the servlet.</p>
<hr>
<p>
The applet is signed using a signing key issued by the STADIUM Certification
Authority. Please download and install its
<a href="http://ca.statel.net/index.html">root certificate</a>
or the applet will not be able to access the local file system.
</p>
<hr>
<p>
Please consult <a href="javadoc">the Javadoc documentation</a>
for details on the classes, and how to integrate the Statelight Java class in
your own applets.
</p>
</body>
</html>

```

Figure 4: Source code for STATELight Web page

The sample applet carries out the functions of the servlet. It has been signed with the STADIUM development key. To enable the applet to access local files (see Figure 5) the STADIUM Development Root Certificate should be downloaded and installed in the browser.

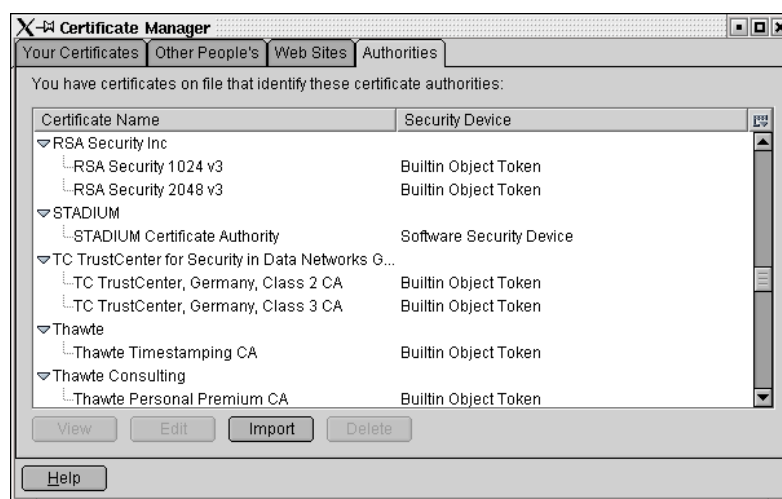


Figure 5: STADIUM Root Certificate

This is a minimal implementation, offering functions that are also available with the normal browser-supported upload. Genuine applications will use the servlet and the Java API in a more sophisticated fashion. For example, the file selection process will probably be a part of the user interface, or the file might be generated specifically for the purpose and not selected by the user (Figure 6).

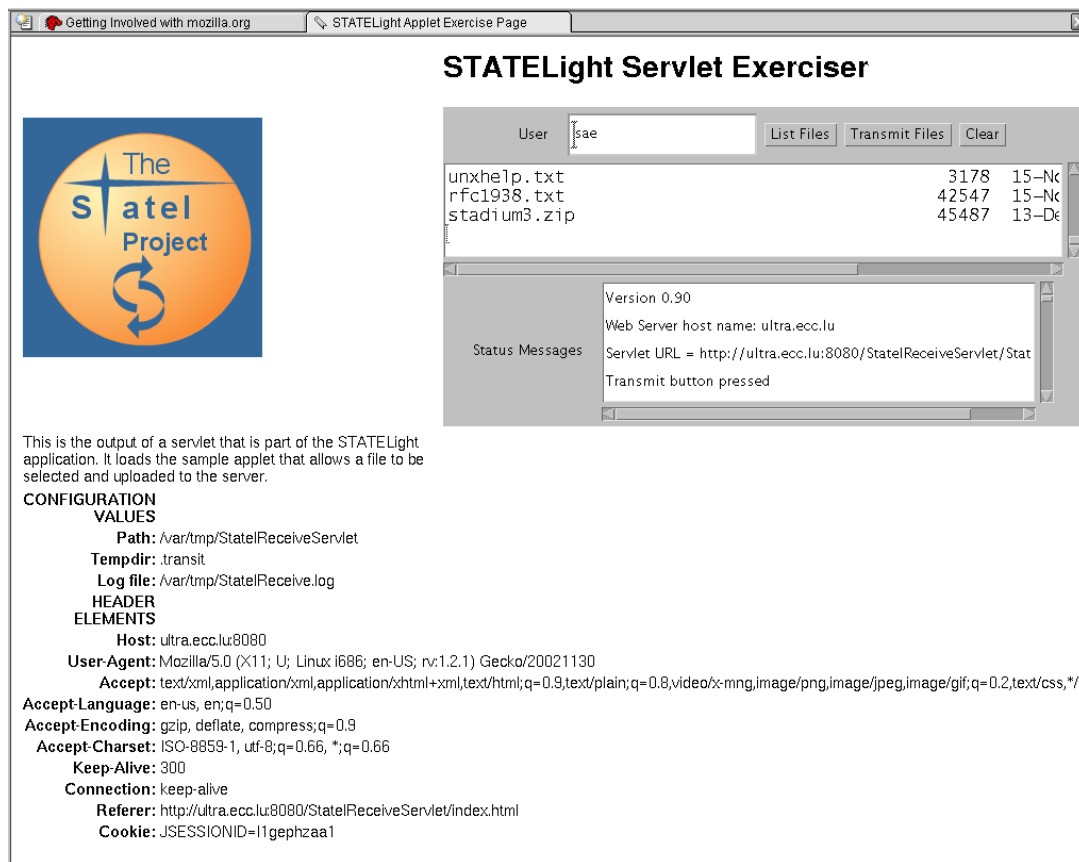


Figure 6: STATELight Servlet Exerciser screen

Source: STATEL team.

References: <http://www.statel.net> or <http://www.statel.com>

Helpdesk e-mail: [estat-support-statel@cec.eu.int](mailto:estat-support-statel@cec.eu.int)



## TESTA Connectivity status

The table that follows provides the TESTA connectivity status of Member states. It has been extracted from the TESTA web site (testa.eu-admin.net) available from the TESTA Network.

Country	Connection to Testa II	Name of the National Network	Remarks
Austria	Yes	CNA Network	The CNA is a federal institution which provides full network services for public institutions
Belgium	Yes	FEDENET Network	
Denmark	Yes	Danish Administrative Network	
Finland	Yes	Finish Administrative Network	
France	No	AdER France	Ader : Administration En Réseau Connection in preparation
Germany	Yes	TESTA Deutschland And TESTA Deutschland Schwerin	2 nodes
Greece	Yes	SYZEFXIS Network	
Ireland	Yes	Irish Network	
Italy	Yes	RUPA Network	
Luxembourg	Yes	CIE Network	CIE : Centre Informatique de l'Etat
Netherlands	Yes	RINIS Network	
Portugal	Yes	Portuguese Administrative Network	
Spain	Yes	Intranet Administrativa	
Sweden	No		There is no administrative network yet
United Kingdom	Yes	UK's GSI	

The following table is a compilation of contact names for national networking issues available from the TESTA Web site :

Country	Co-ordinator	Technical contact
Austria	Leopold Koppensteiner <a href="mailto:Leopold.Koppensteiner@bmf.gv.at">Leopold.Koppensteiner@bmf.gv.at</a> +43-1-71123-2525	Michael Wickenhauser Michael.Wickenhauser@brz.gv.at
Belgium	Plasschaert Roland <a href="mailto:roland.plasschaert@premier.fed.be">roland.plasschaert@premier.fed.be</a> +32 2 501.04.38	Plasschaert Roland <a href="mailto:roland.plasschaert@premier.fed.be">roland.plasschaert@premier.fed.be</a> +32 2 501.04.38
Denmark	Poul Bernt Jensen <a href="mailto:pbj@fsk.dk">pbj@fsk.dk</a> +45 3392 9886	Henrik Lynnerup hlynnrcru@csc.dk +45 3614 6574
Finland	S. Riihimäki <a href="mailto:Seppo.riihimaki@vnk.vn.fi">Seppo.riihimaki@vnk.vn.fi</a> +358 9 1602139	V. Hagelberg <a href="mailto:Ville.Hagelberg@vnk.vn.fi">Ville.Hagelberg@vnk.vn.fi</a> +358 9 1602137
France	<a href="mailto:ader@atica.pm.gouv.fr">ader@atica.pm.gouv.fr</a> +33 1 42755200	
Germany	S. Wilke SWilke@TIM.thueringen.de +49 361 379 3313 Second Node : Peppo Zahn <a href="mailto:peppo.zahn@im.mv-regierung.de">peppo.zahn@im.mv-regierung.de</a> +49 385 5882 162	Andreas Munde <a href="mailto:Amunde@tlrz.thueringen.de">Amunde@tlrz.thueringen.de</a> +49 361 379 3313  Oliver Hensel <a href="mailto:o.hensel@dvz-mv.de">o.hensel@dvz-mv.de</a> +49 385 4800 679
Greece	Christos Moschonas <a href="mailto:c.mos@syzefxis.gov.gr">c.mos@syzefxis.gov.gr</a> +30 10 9286007	Christos Moschonas <a href="mailto:c.mos@syzefxis.gov.gr">c.mos@syzefxis.gov.gr</a> +30 10 9286007
Ireland	Tim Duggan <a href="mailto:Tim_Duggan@cmod.finance.irlgov.ie">Tim_Duggan@cmod.finance.irlgov.ie</a> +353 1 6045056	Eddie McGinn <a href="mailto:eddie_mcginn@cmod.finance.gov.ie">eddie_mcginn@cmod.finance.gov.ie</a> +353 1 6045138
Italy	Marino Di Nillo <a href="mailto:mdinillo@centrotecnico.g-net.it">mdinillo@centrotecnico.g-net.it</a> +39 0685264453	Marino Di Nillo <a href="mailto:mdinillo@centrotecnico.g-net.it">mdinillo@centrotecnico.g-net.it</a> +39 0685264453

Country	Co-ordinator	Technical contact
Luxembourg	D. Nickels Daniel.Nickels@cie.etat.lu +352 499 25608	Serge SPANIER <a href="mailto:serge.spanier@cie.etat.lu">serge.spanier@cie.etat.lu</a> +352 49925 753
Netherlands	Henk-Jan Oostenbrink <a href="mailto:hjoostenbrink@rinis.nl">hjoostenbrink@rinis.nl</a> +31 20 5451432	Annet Sikkel <a href="mailto:asikkel@rinis.nl">asikkel@rinis.nl</a> +31 20 5451436
Portugal	Fernanda Costa <a href="mailto:fernanda.costa@inst-informatica.pt">fernanda.costa@inst-informatica.pt</a> +351+21 4723189	Fernanda Costa <a href="mailto:fernanda.costa@inst-informatica.pt">fernanda.costa@inst-informatica.pt</a> +351+21 4723189
Spain	Luis de Eusebio Ramos <a href="mailto:luis.deeusebio@map.es">luis.deeusebio@map.es</a> +34 91 586 18 99	Miguel A. Amutio Gsmez miguel.amutio@map.es + 34 91 5862990
Sweden	Irene Andersson <a href="mailto:irene.andersson@statskontoret.se">irene.andersson@statskontoret.se</a> +46 8 454 4600	Irene Andersson <a href="mailto:irene.andersson@statskontoret.se">irene.andersson@statskontoret.se</a> +46 8 454 4600
United Kingdom	Moirra Atkinson <a href="mailto:Moirra.Atkinson@cabinet-office.x.gsi.gov.uk">Moirra.Atkinson@cabinet-office.x.gsi.gov.uk</a> +44 (0) 20 7276 3207	Alan Collier <a href="mailto:Ian.Ascough@cabinet-office.x.gsi.gov.uk">Ian.Ascough@cabinet-office.x.gsi.gov.uk</a> +44 (0)20 7276 3210

Following list contains National Statistical Institutes which are known to be connected to TESTA through a national network. It is possible that other ones are also connected. Usage of TESTA is also indicated in the same table.

Institution	Connection through	Use
STAT (Austria)		
INS (Belgium)		
DS (Denmark)	National Network	Comext/STADIUM
STFI (Finland)	National Network	Comext
INSEE (France)		
STATBUND (Germany)	National Network	Comext
NSSG (Greece)	National Network	Test
CSO (Ireland)		
ISTAT (Italy)	National Network	Test
STATEC (Luxembourg)	National Network	Comext/STADIUM
CBS (Netherlands)		
INE (Portugal)		
INE (Spain)	National Network	Comext
SCB (Sweden)		
CSO (United Kingdom)		

## Help Desk (ECAS-HD) Activity Report

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This article provides an overview of ECAS HD activities until June 2002. A description of ECAS-HD services and support levels are provided in the previous edition of this Bulletin.

The list of systems supported as well as the level of support is shown below.

System	Level	Comments
STATEL	1 plus, 2	
STADIUM II	1 plus	
STADIUM Web Client	1 plus	
TESTA	0	
TESTA II and migration	0	Due to the architecture of TESTA II, the support is virtually level 1
COMEXT connection	0	
COMEXT application	0	
GENEDI (New)	1	Newly supported

### STADIUM Web Client (SWC) deployment status

The SWC is operational in Belgium, France, Sweden, Portugal and Slovenia. It is installed but not yet operational (or used) in Italy and Greece. Installations are planned in Ireland and Luxembourg.

Most of the installation problems are resolved in the latest version (1.1.003) and most production sites are now upgraded successfully. A new version (1.2.001) is available and will be used in all the new installations.

### A new system supported by the ECAS HD: GENEDI

GENEDI is a tool to prepare GESMES files. It will be interfaced with STATEL soon to provide an automatic, transparent and secure way to send the GESMES file created.

The ECAS team will be happy to provide a level 1 support. A specific Section on the support web site will be created to provide information related to GENEDI.

## Statistics of ECAS activities

In the tables that follow statistics on actions started by the ECAS team are presented according to various sorting criteria.

### *Per system*

System	Year 2001	Up to 08/02
STADIUM	140	150
STATEL	137	83
New Installations	103	65
Genedi		0
TESTA	12	3
GESMES		0
Other	51	28
Total	443	329

### *Per country*

Countries	Year 2001	Up to 08/02
Austria	24	3
Belgium	27	11
Denmark	10	12
Finland	14	7
France	28	15
Germany	15	12
Greece	30	14
Ireland	8	6
Italy	29	22
Luxembourg	20	16
Netherlands	8	11
Portugal	51	16
Spain	13	9
Sweden	17	10
United Kingdom	21	18
Other (candidate, MedStat countries)	128	120

### *Per medium*

Medium	Year 2001	Up to 08/02
Phone	48	23
Fax	0	0
Post	0	0
e-mail	291	200
Pro-active	62	42
Eurostat	42	64
Total	443	329

### ***Per category***

Category	Percentage
Pro-active	15%
Installation	30%
Connectivity	30%
Other	25%

Proactive: support action started by the ECAS team. In some cases, the monitoring of the systems allow to discover possible problem. In such a case, the ECAS team contact the LC.

Installation: support at installation (providing information and software, problem resolution) as well as the support to setup a new data-flow request.

ECAS-HD uses an Incident Report Management System (IRMS), which is based on Request Tracker, an Open Source software. The system is in operation during the last 18 months. More than 400 incident reports have been recorded in the database. The same system is used by Eurostat's STADIUM team since a few months to take advantages of a common platform.

Feedback received to a recently published questionnaire on ECAS-HD services showed a complete satisfaction of users. No additional services were requested.

## The new EDIFLOW application

---

EDIFLOW has been initiated by Eurostat, Unit A2 in 1998 with the collaboration and the help of some member states. EDIFLOW is the inventory of all dataflows transmitted to Eurostat by various respondents in member states, candidate and partner countries.

The first version of the application provided query possibilities for the basic entities involved (requests, dataflows, organisations, people involved in data transmission). The disadvantage of this first version was that access was restricted to Eurostat people only. A separate data extraction routine was available for the production of a MS-Access version of the database, which has been distributed on a CD-ROM.

Development of the new application started in 2002. A Task Force had been created, in which Local Co-ordinators from France, Greece, the Netherlands and Portugal participated. The Task Force has reviewed parts of the application during several stages of the development and provided valuable advice and feedback.

### Main characteristics

The new application has a completely re-designed database structure and user interface. Main entities are requests, each request comprising several dataflows. Further entities are organisations and persons involved in data transmission. To each dataflow there are associated one or more persons belonging to the same organisation, each one having a specific role with respect to the dataflow. The roles have distinct values, approved by the Local Co-ordinators.

The new application will be able to report on the dataflow traffic in STADIUM

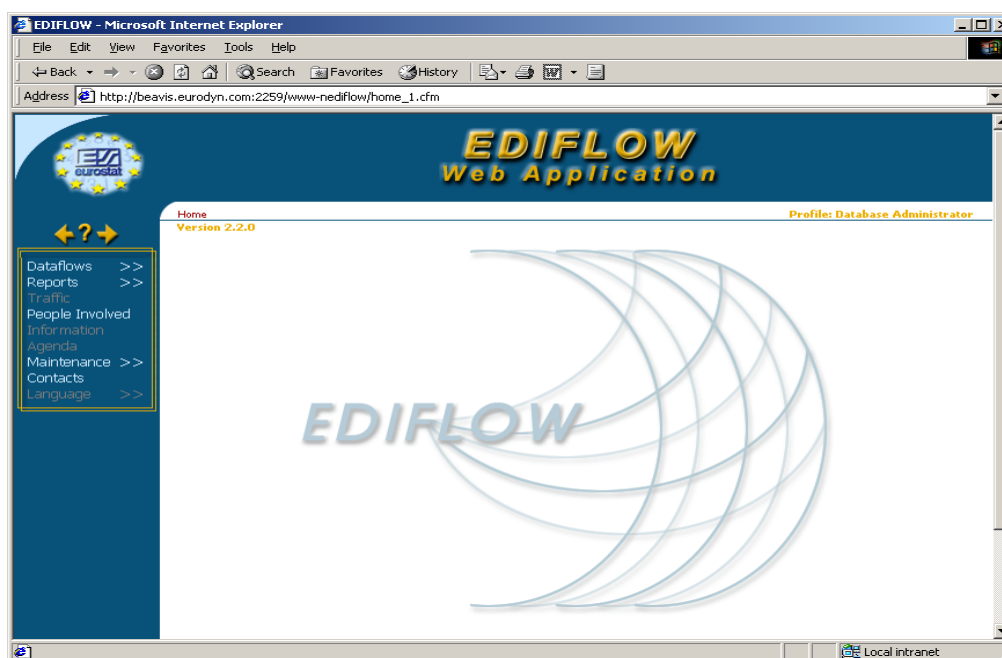


Figure 1: The new EDIFLOW Web Application Home page

The new EDIFLOW application will allow querying and updating of the data via a web interface. The application is hosted in the Data Centre of the European Commission. Access to Local Co-ordinators over the Internet is provided through a userid-password combination.



## Features of the new application

### Interface

The new interface has an improved functionality over the previous one. Extensive use has been made of floating vertical menus that stay in position whenever the user scrolls down the results page.

### Multilingualism

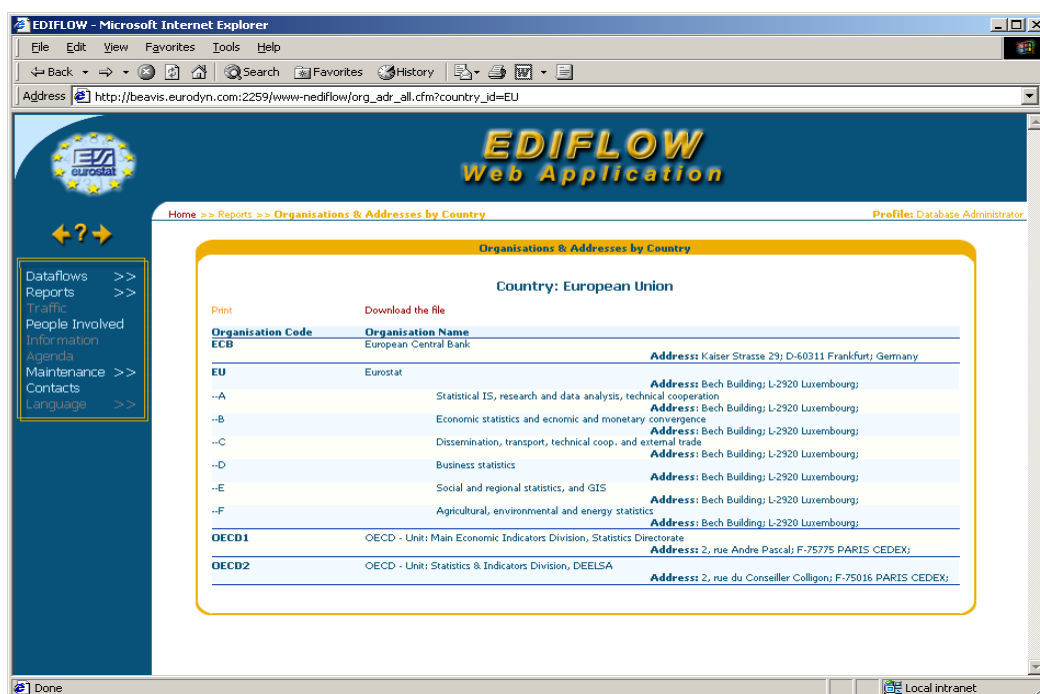
The new application will provide a mechanism to support multilingualism.

### User profiles

The new application supports different user profiles. A user profile defines the access rights for the userid to which the user profile is attached. Depending on the attached user profile menu options and functions will be activated or deactivated. Currently available profiles are Guest, Local Coordinator, Central Coordinator and Database Administrator.

### Reports

Several reports can be generated by the application. Reports for "Organisations and addresses by country", "Dataflow information by country", "Dataflows by requests" and others can be produced with a few keystrokes. Furthermore, certain reports can be downloaded in comma separated value (CSV) formatted files for local use.



The screenshot shows the EDIFLOW Web Application interface in a Microsoft Internet Explorer browser. The address bar shows the URL: http://beavis.eurodyn.com:2259/www-nediflow/org\_adr\_all.cfm?country\_id=EU. The page title is "EDIFLOW Web Application". The main content area displays a report titled "Organisations & Addresses by Country" for the "Country: European Union". The report includes a table with columns for "Organisation Code", "Organisation Name", and "Address". The table lists various organisations, including the ECB, Eurostat, and OECD, along with their respective addresses. A floating vertical menu on the left side of the page contains links to "Dataflows", "Reports", "Traffic", "People Involved", "Information", "Agenda", "Maintenance", "Contacts", and "Language".

Organisation Code	Organisation Name	Address
ECB	European Central Bank	Address: Kaiser Strasse 29; D-60311 Frankfurt; Germany
EU	Eurostat	Address: Bech Building; L-2920 Luxembourg;
--A	Statistical IS, research and data analysis, technical cooperation	Address: Bech Building; L-2920 Luxembourg;
--B	Economic statistics and economic and monetary convergence	Address: Bech Building; L-2920 Luxembourg;
--C	Dissemination, transport, technical coop. and external trade	Address: Bech Building; L-2920 Luxembourg;
--D	Business statistics	Address: Bech Building; L-2920 Luxembourg;
--E	Social and regional statistics, and GIS	Address: Bech Building; L-2920 Luxembourg;
--F	Agricultural, environmental and energy statistics	Address: Bech Building; L-2920 Luxembourg;
OECD1	OECD - Unit: Main Economic Indicators Division, Statistics Directorate	Address: 2, rue Andre Pascal; F-75775 PARIS CEDEX;
OECD2	OECD - Unit: Statistics & Indicators Division, DEELSA	Address: 2, rue du Conseiller Collignon; F-75016 PARIS CEDEX;

Figure 2: Sample report

### Maintenance

This function, which is currently not yet available, allows to update data for organisations, requests, dataflows and persons. Furthermore the association of persons to organisations and persons to dataflows can be maintained.

A Local Co-ordinator will be allowed to update only data related to his own country.

## Bulk Procedures

The application enables to perform massive (=bulk) downloads and uploads of data in order to facilitate the updating of the data in the database.

The bulk extract procedures allow extraction of data in CSV formatted files for the major entities in the database such as requests, dataflows, persons and organisations. The user can filter the data to be extracted (Figure 3).

The bulk upload procedures support a massive upload of data, stored in CSV formatted files, in the database. The bulk upload procedures allow the user to update, delete or insert new entries in the database.

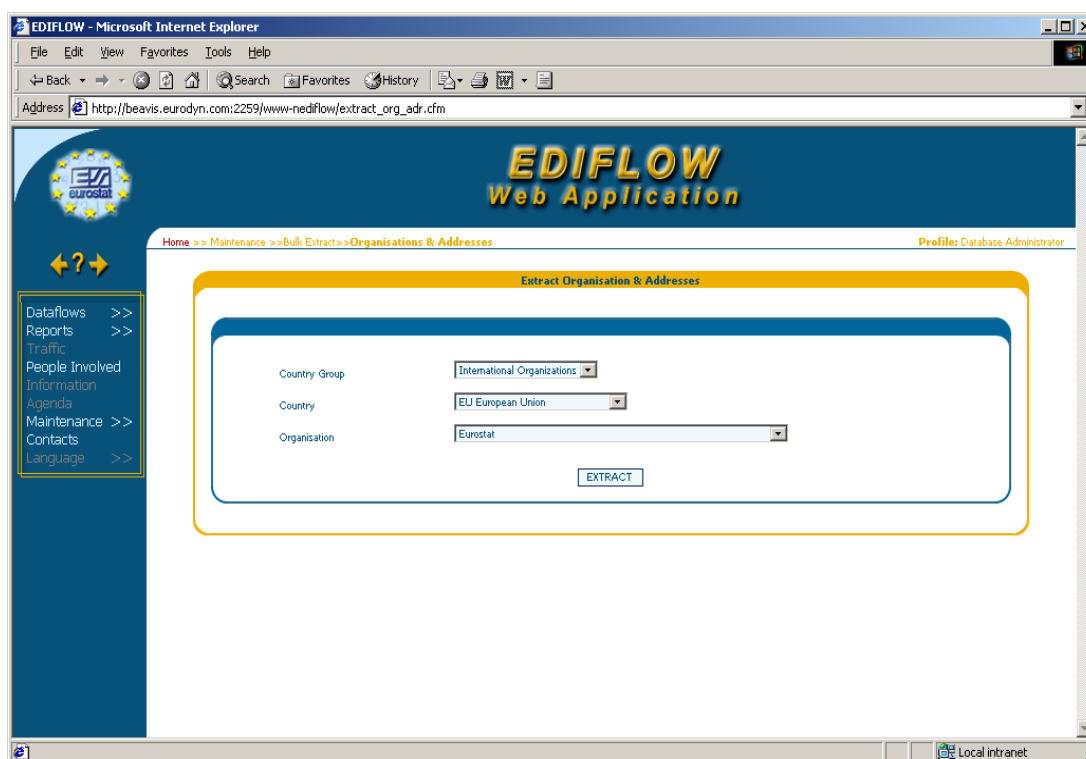


Figure 3: Bulk extract of organisations and addresses screen

The bulk upload procedures support a massive upload of data, stored in CSV formatted files, in the database. The bulk upload procedures allow the user to update, delete or insert new entries in the database.

## Distributable version of EDIFLOW

The EDIFLOW application allows to extract the entire contents of the database. This extraction can then be imported into a distributable Ediflow application. This application can be distributed on a CD-ROM. The application can be started from a CD-ROM without the need of local installations and thus supports the distribution of EDIFLOW data through an organisation.

## **GENEDI: A tool for efficient data validation, GESMES conversion and data transmission**

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### **Why a generic EDI toolbox ?**

The GENEDI toolbox has been developed by Eurostat in order to simplify the generation of GESMES messages and validate data (format and codes), thus enabling a shorter data correction cycle between Eurostat and the data providers. Moreover, such a tool promotes usage of EDI. The main objective is to supply Eurostat with good quality data in a standard format and in short time.

### **Key features**

#### ***GENEDI is easy to install***

GENEDI offers a user-friendly set-up that requires no specific computer skill. The installation is automatic, needing the supply of general parameters only, like the destination path and the institution code. Besides, GENEDI does not require any administrator rights, so it can be installed on any PC connected to a network. Finally, de-installation is automatic and with no left-overs.

#### ***GENEDI is easy to configure***

Configuration files are included for some standard statistical domains. Customised configuration files can be sent by Eurostat. A user-friendly graphical interface allows a transparent modification of configuration files. Nevertheless, GENEDI offers a contextual Help (in HTML format) available from each menu option. For one statistical domain, configuration is set only once and saved.

#### ***GENEDI makes process analysis easy***

GENEDI provides monitoring and archiving facilities during each processing step. In particular, structured error reporting files allow an easy analysis and correction of corrupted dataset files.

#### ***GENEDI is a Flexible EDI toolbox offering the following set of functionalities***

##### Data structure reorganisation

GENEDI accepts different input formats (CSV, FLR, GESMES) and is able to pre-process input files. It can reorganise file structures (Mapping module) and can change automatically user codes to GESMES required codes (Transcoding tool).

##### Data Validation

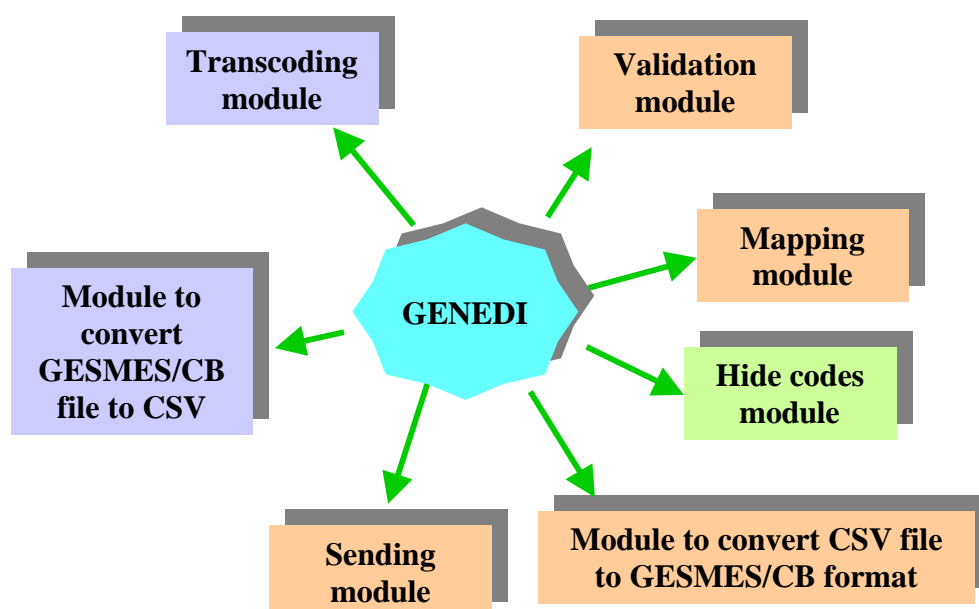
Starting from a compliant CSV file, which can be the result of the mapping module, GENEDI can optionally validate data. Validation rules can be basic (format, value and code checking) or advanced. Validation rules are pre-configured for included domains.

## Conversion to GESMES/CB format

When CSV files have passed validation, meaning that no error with the "reject" level occurred, they are automatically converted to GESMES/CB format. The time range technique may be used optionally to downsize output data files.

## Transmission to Eurostat

Finally, the toolbox includes an optional sending module that can be installed during the set-up. GENEDI uses STATEL as an underlying file transmission method. Although STATEL is the preferred method, plain e-mail can be used for sending statistical data.



*Figure 1: Global overview of the GENEDI modules*

## **GENEDI is a Generic Tool**

The main feature of GENEDI is that source code and parameters are separate. So, it is able to process most of current and future data set structures from different statistical domains. Besides, configuration files are flat structured files, which are editable and easy to update through flexible graphical interfaces.

## **GENEDI advantages**

### ***GENEDI is simple to integrate in an information system***

You can define your own working folders to store input and output files. GENEDI will take out the input file in the user-defined folder, process it and copy the GESMES file produced in the user-defined output folder. GENEDI makes use of tools available on most platforms like file manager, Internet e-mail, and the "zip" format for compression before sending. The tool can be launched from a command line authorising batch processing and

scheduled processing. Lastly, it is portable as it works on a wide range of platforms (Windows 9x, NT, XP, Unix, Mac) and is independent from any other software.

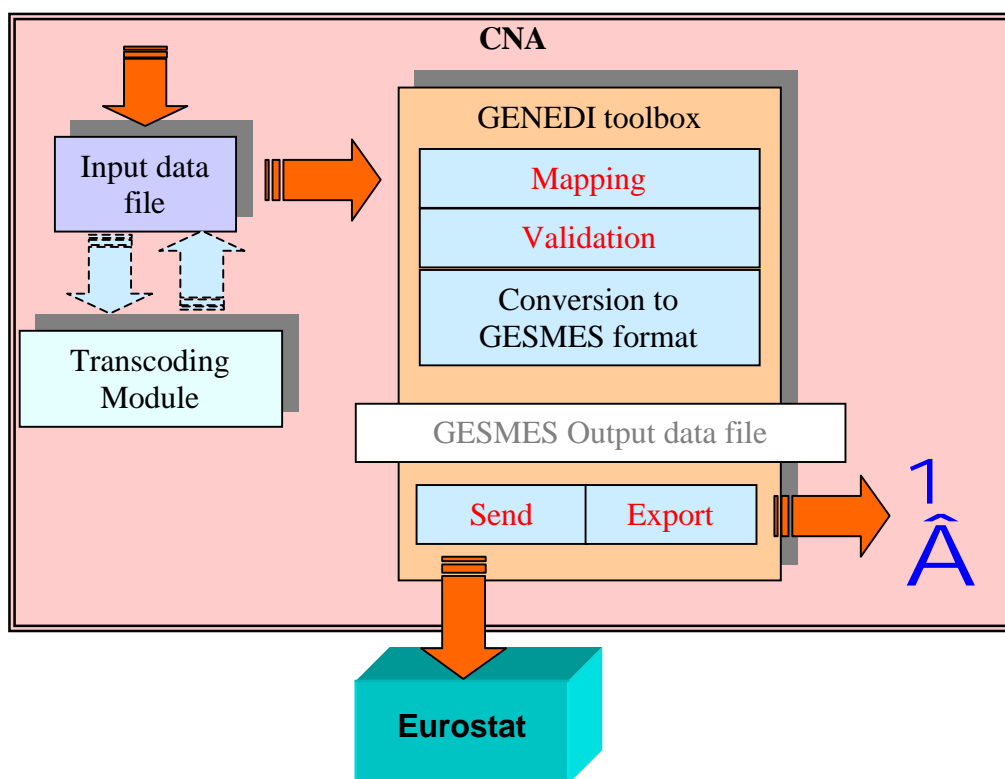


Figure 2: Global overview of the GENEDI processes

### **GENEDI is free software**

The tool has been developed in Perl, making GENEDI independent of any private platform or format (e.g. Excel). It is provided free to member states, and the source code is available.

The GENEDI Package is available on CIRCA (EDI & Statistics group).

### **GENEDI may automate data transmission**

The underlying concept of EDI communication is that a tool can be used without any human intervention from data extraction to reception. This is possible by using the command line option and by setting all GENEDI processes to automatic mode.

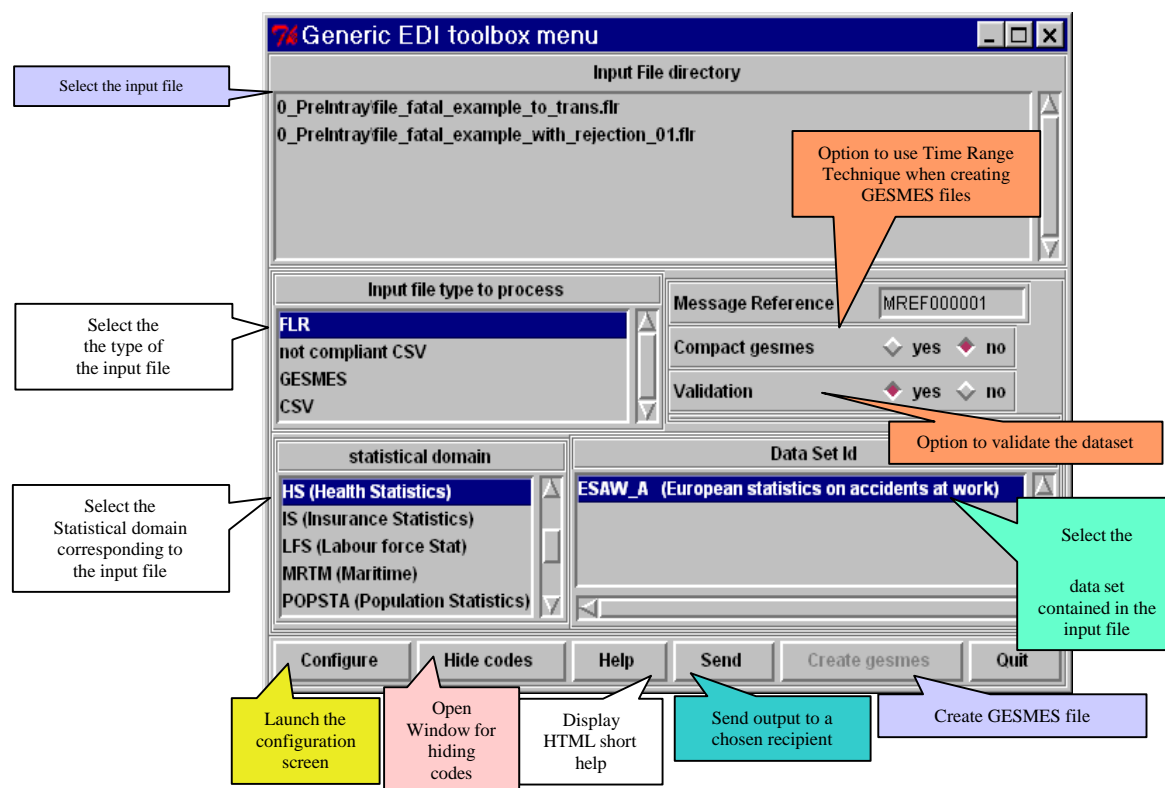


Figure 3: GENEDI main Menu Windows

### **GENEDI is simple, well documented and supported**

For any question relevant to the tool, contact the GENEDI Support refer to

ESTAT-SUPPORT-GENEDI@cec.eu.int

Support for GENEDI is given by ARIANE II (Fabien Jacquet and Sylvain Kurek)

For question relevant to GESMES (syntax, documentation...), contact the GESMES Support

ESTAT-SUPPORT-GESMES@cec.eu.int

Depending of the complexity of the query and/or problem, support will take the form of

- A direct answer by E-mail
- An E-mail exchange
- A phone support
- On site assistance (when justified)

Training sessions can be organised to meet the needs of working groups, member states and candidate countries through Eurostat Unit A2.

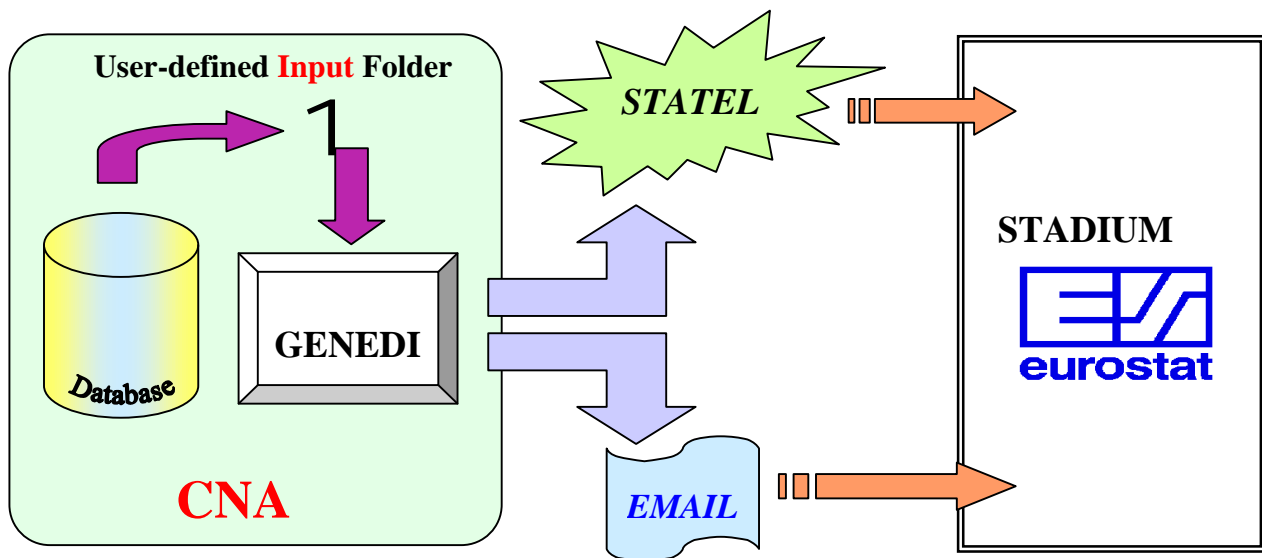


Figure 4: Sending GESMES files to Eurostat with GENEDI

## New developments

The GENEDI toolbox is constantly enhanced to suit member states' needs. Here are some planned future developments:

- Coupling with STADIUM Web Client

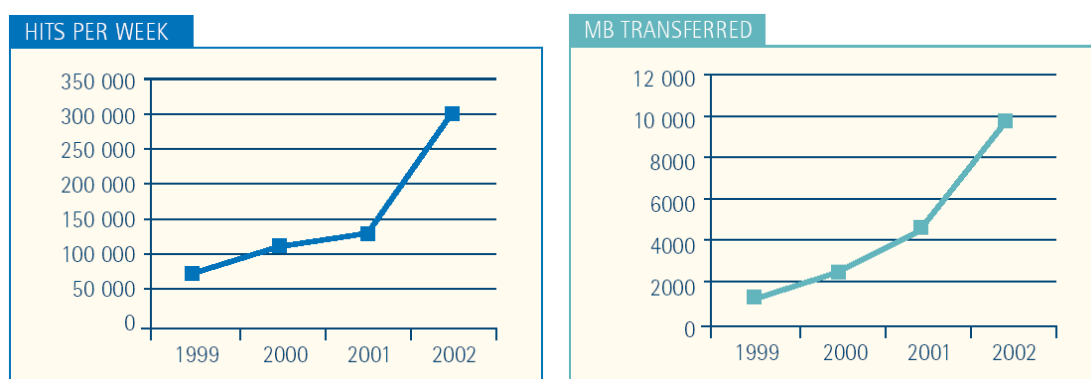
The coupling should allow GENEDI to use the SWC API to send automatically data to Eurostat using the SWC.

- Performance improvement
- Inclusion of Attribute segments

## CIRCA status report

CIRCA has gained considerable momentum and experienced dramatic increase, within 2002, in terms of its usage and popularity amongst the European Commission as well as the various other CIRCA installations in European or Member States organizations.

It should be mentioned, that according to the latest indications from IDA (as published in the relevant IDA brochure, 18/09/2002, <http://europa.eu.int/ISPO/ida/>), the CIRCA server of the Commission has now more than 22,000 active users, organized in more than 600 interest groups. The number of access requests to the service ("hits") has been increasing continuously over the past five years, and the total data transferred in 2001, alone, amounted to more than 230 Gigabytes.



## Operational Status

CIRCA version 3.1 has successfully been put into production on 24 August 2002. The new version has been very well received by the CIRCA user community, since the migration to the Apache underlying Web server has drastically improved its stability and performance. Numerous enhancements in the functionality of all the services have also been implemented.

## Development Status

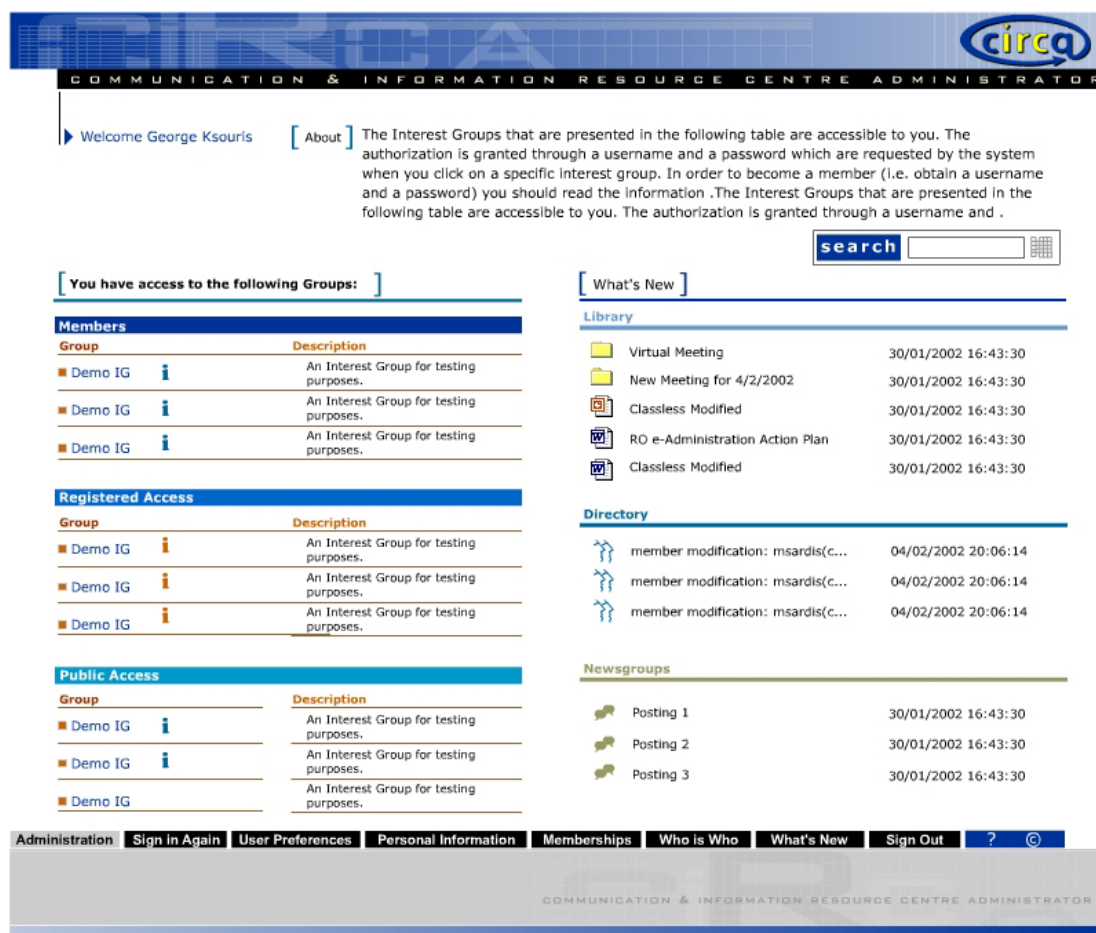
CIRCA version 3.2 is currently in the final stages of development. It is anticipated that it will go into production in early 2003. The features that have been added in this version span all the CIRCA services as well as various back-office operations. The main new features in CIRCA 3.2 are:

- Enhancement to the user definable metadata
- Mapping of library metadata to Dublin Core
- Full-text search capability
- Save/Restore of an Information Directory
- Save/Restore of an Interest Group



- New graphical user interface and full-template support for customization of all services
- Context menus, easing usage within the library service
- Self-registration and login improvements
- Automatic https classification in newsgroups and external services
- “Remove me” capability for users
- Configurable email message templates

The ‘Full text search’ and ‘Dublin Core-compliant metadata’ are first steps in tailoring CIRCA towards a more efficient knowledge management within the Commission. Furthermore, version 3.2 will change its look-and-feel (see figure below), allowing at the same time much more flexibility in customizing it and thus harmonizing its interface with other IT systems that CIRCA might be inter-operating with.



**COMMUNICATION & INFORMATION RESOURCE CENTRE ADMINISTRATOR**

Welcome George Ksouris [About] The Interest Groups that are presented in the following table are accessible to you. The authorization is granted through a username and a password which are requested by the system when you click on a specific interest group. In order to become a member (i.e. obtain a username and a password) you should read the information .The Interest Groups that are presented in the following table are accessible to you. The authorization is granted through a username and .

**[ You have access to the following Groups: ]**

Group	Description
Demo IG	An Interest Group for testing purposes.
Demo IG	An Interest Group for testing purposes.
Demo IG	An Interest Group for testing purposes.

**Registered Access**

Group	Description
Demo IG	An Interest Group for testing purposes.
Demo IG	An Interest Group for testing purposes.
Demo IG	An Interest Group for testing purposes.

**Public Access**

Group	Description
Demo IG	An Interest Group for testing purposes.
Demo IG	An Interest Group for testing purposes.
Demo IG	An Interest Group for testing purposes.

**[ What's New ]**

**Library**

Item	Date
Virtual Meeting	30/01/2002 16:43:30
New Meeting for 4/2/2002	30/01/2002 16:43:30
Classless Modified	30/01/2002 16:43:30
RO e-Administration Action Plan	30/01/2002 16:43:30
Classless Modified	30/01/2002 16:43:30

**Directory**

Item	Date
member modification: msardis(c...	04/02/2002 20:06:14
member modification: msardis(c...	04/02/2002 20:06:14
member modification: msardis(c...	04/02/2002 20:06:14

**Newsgroups**

Item	Date
Posting 1	30/01/2002 16:43:30
Posting 2	30/01/2002 16:43:30
Posting 3	30/01/2002 16:43:30

Administration | Sign in Again | User Preferences | Personal Information | Memberships | Who is Who | What's New | Sign Out | ? | ©

**COMMUNICATION & INFORMATION RESOURCE CENTRE ADMINISTRATOR**

## Way forward

CIRCA is continuously progressing both in terms of architectural upgrades, user-friendliness and functionality as well as in terms of security and performance.

Major enhancements in the upcoming version 3.3 are expected to be the full data-tier support for all CIRCA services (as is currently the case with the Library service) as well as the support of Workflow features, allowing the organization of activities and follow-up of procedures within Interest Groups to be done in much more structured manner.

## TES autumn courses

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### New Tools and Methods of Data Transmission for Statisticians

Last November, the first course on "New Tools and Methods of Data Transmission for Statisticians" was organised in Luxembourg in the context of the "European Statistical Training Program". There were 17 participants from different member states and candidate countries. Two of them were newly nominated Local Coordinator from acceding countries (Slovakia and Latvia).

The duration of the course was 4 days. The agenda was as follows:

First day	Data transmission networks and tools: an overview STATEL: a middleware STATEL applications and tools Simulation of a data collection network (installation and usage)
Second day	Data transmission applications environment: an overview STADIUM: server, clients and protocol Other data collection methods: STATEL over http A practical example: the STADIUM Web Client: installation and usage
Third day	EDIFACT and GESMES CLASET
Fourth day	EDIFACT vs. XML RDRMES and XML4DR Security

The first day was dedicated to networks and transmission of data. An overview of Eurostat tools was first given to the participants. STATEL, the tool used by Eurostat for data transmission, was described in depth; the most interesting technical aspects VFS, the PDU among them, were reviewed. Following this technical presentation, a tour of the STATEL family of products was given. The last part of the first day was a workshop allowing participants to install and use STATEL for file transfer between their PCs and that of the teacher.

The second day was devoted to data collection applications. After a brief description of the characteristics of data collection problems the EDIFLOW and STADIUM projects were presented. The presentation of STADIUM covered mainly the message and the client parts focussing on the point of view of the data sender. After this presentation, the installation of the STADIUM Web Client was demonstrated. Finally, a workshop allowing every participant to use the SWC from the student PC was foreseen but this was not successful due to the low performance of the PCs.

The third day was divided into two parts. The first part covered an introduction to the EDIFACT syntax and the description of GESMES/CB messages. This first part ended with the presentation of the Excel add-in and the GENEDI tool. The second part was dedicated to the description of CLASET and a presentation of the CLASET toolbox.

Three different subjects were covered during the fourth day. The first was an introduction in XML and a comparison between XML and EDIFACT with their corresponding advantages. The second presentation described XML4DR – the XML representation of RDRMES. The third subject introduced security issues in data transmission and covered mainly the problems of encryption, digital signature and public key infrastructure.

The analysis of the evaluation of the course by participants is currently being performed. The same course is planned in 2003 around the same period.

## **TES autumn courses**

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### **New Advanced Technologies for Data Collection**

In October 2002, at the TES Institute in Luxembourg, a three day course took place on "New Advanced Technologies for Data Collection". There were 18 participants from member states and candidate countries. The purpose of the course is to familiarise participants with the latest technologies, tools and standards in use for primary data collection.

Following some background information on the European Statistical System (ESS), the Internet & World Wide Web and Electronic Business the following items were specifically covered:

#### **Electronic Data Reporting (EDR)**

This area covered the use of electronic questionnaires for primary data collection, including both stand alone software and internet Web forms.

Also covered was file import, data extraction, nomenclature support, auto validation, data transmission, multi-linguism and the possibility of multi-questionnaire systems.

#### **Metadata and Standards**

The use of metadata in electronic questionnaire design and presentation, and in respondent support (e.g. code lists, validation, help texts, autofill) was explained.

Standards covered the area of EDIFACT and its current usage (GESMES, CLASET, RDRMES, CUSDEC/INSTAT and CUSDEC/EXTAT) and also the probable use of XML as the next generation of message standards. A number of existing XML-based technologies were described.

#### **Security and Confidentiality**

This area covered the problems (and some existing solutions) in secure and confidential transmission of data.

#### **Research and Development**

Statistical research projects (TELLER and IQML) were described, including a brief outline of each of the elements within those projects.

Also covered was SERT (an IDA project), IDEP/CN8 (an EDICOM project for the collection of intra-EU trade statistics) and a number of national developments (e.g. e-Quest at Statistics Austria and EDReporter at CBS Netherlands).

Three case studies, were presented by guest speakers; IDEP/CN8, e-Quest and an IQML web-form project.

A similar course is planned for 8-10 September 2003.

## New Local Co-ordinators

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Thirteen new Local Co-ordinators have joined the group. Here is the list:

<i>Name</i>	<i>Organization</i>	<i>E-mail address</i>
Mr. Plamen Minkov	NSI Bulgaria	PMinkov@nsi.bg
Mr. Costas Diamantides	SSC Cyprus	cydsr@cytanet.com.cy
Mr. Pavel Kubin	SO Czech Republic	kubin@gw.czso.cz
Mr. Vadim Buttel	STAT Estonia	vadim.buttel@stat.ee
Mr. Robert Debreceni	KSH Hungary	robert.debreceni@office.ksh.hu
Ms. Nadezda Zotolonoza	CSB Latvia	azigure@csb.lv
Ms. Birute Liberiene	STD Lithuania	Birute.Liberiene@std.lt
Mr. Jeffrey Bezzina	COS Malta	Jeffrey.J.Bezzina@gov.mt
Mr. Slawomir Kowalczyk	Statistics Poland	s.kowalczyk@stat.gov.pl
Ms. Mioara Radoi	INSSE Romania	mioara@insse.ro
Mr. Ivan Kirst	Statistics Slovakia	Ivan.Kirst@statistics.sk
Ms. Ida Repovz Grabnar	Statistics Slovenia	ida.repovz-grabnar@gov.si
Ms. Nazan Teksoy	SIS Turkey	nazan.teksoy@die.gov.tr

The new group meeting is on 4-5th February 2002. An introductory seminar addressed mainly to new Local Co-ordinators will take place on 3rd February 2002.