

UNDP/GEF Danube Regional Project

Strengthening the Implementation Capacities for Nutrient
Reduction and Transboundary Cooperation in the Danube
River Basin

Final Report

Project Component 2.4: Support for Reinforcement of
the ICPDR Information System - DANUBIS

December 05, 2003

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Abbreviations

AEWS.....	Alarm and Emergency Warning System
APC/EG.....	Accident Prevention and Control Expert Group
AT.....	Austria
BA	Bosnia and Herzegovina
BG	Bulgaria
CS	Serbia and Montenegro
CZ.....	Czech Republic
DBAM.....	Danube Basin Alarm Model
DE.....	Germany
DRP	Danube Regional Project
ECO/EG	Ecology Expert Group
EMIS/EG	Emissions Expert Group
FP/EG	Flood Protection Expert Group
GC-MS	Gas Chromatography – Mass Spectrometry
GIS	Geographic Information System
GSM	Global System for Mobile Communications
HR	Croatia
HU	Hungary
ICPDR	International Commission for the Protection of the Danube River Basin
JDS	Joint Danube Survey
MD	Moldova
MLIM/EG.....	Monitoring, Laboratory & Information Management Expert Group
PIAC.....	Principal International Alert Centre
RBM ECON/ESG	Expert Sub-Group on Economics within the RBM EG
RBM GIS/ESG.....	GIS Expert Sub-group within the RBM EG
RBM/EG.....	Riverbasin Management Expert Group
RO	Romania
S/EG	Strategic Expert Group
SI	Slovenia
SK.....	Slovak Republic
SMS.....	Short Message Service
TAR.....	Technical Assistance Request to Oracle Support
TNMN	TransNational Monitoring Network
UA	Ukraine
VIC.....	Vienna International Centre

Executive Summary

This report gives an overview on the given tasks, taken activities and produced outputs for the project component 2.4 “Support for Reinforcement of the ICPDR Information System – DANUBIS”.

The ICPDR Information System (DANUBIS) is installed at the Permanent Secretariat of the ICPDR (Vienna). It provides a web-based infrastructure for sharing and publishing information (documents, links, addresses, events, etc.), and has integrated databases for specific needs of the work within the ICPDR (water quality, emissions, etc.).

The main achievements of the activities within this project component can be summarized as follows:

- Users at the national level (mainly members of the Expert Groups) have received new computer equipment to facilitate their work with the system
- A regional and 11 national training courses were organized to improve the knowledge about and further usage of the system
- The server platform (hardware and software) was upgraded.
- The system was further developed and extended with new features, for example customizable email notification of new additions to the website
- A webpage for the Danube Regional Project was set up
- Databases for water quality and emissions were interlinked and extended
- A new communication solution for the Danube Alarm and Emergency System was developed and tested and is ready for operational use

Main Report

Needs Assessment and Hardware Purchase on national level (2.4-1)

Tasks

- Definition and assessment of needs (equipment and human capacities) at national level
- Preparation of specifications for needed equipment and time planning
- Organization and coordination of equipment installation

Activities

A survey on current hardware equipment and user's experience has been carried out in 2002 among members of ICPDR bodies. The survey was sent out to 128 and completed and returned by 56 people (44%). Based on the results, a prioritised list of hardware needs was compiled. The detailed purchase list including the specification of a suggested standard configuration was finished in early December 2002.

Equipment (personal computer, monitor, and optionally printer and modem) was purchased for 37 users.

At the end of the purchase procedure, a short follow-up survey has been carried out at the end of October 2003 to get feedback from the recipients:

- 24 users (65%) have reported that they have received the equipment, it has been installed and connected to the internet, is fully functional and satisfying the users' needs for work related to the UNDP/GEF Danube Regional Project, activities of the ICPDR, and for purposes of overall cooperation in the Danube region with a few exceptions.
- 5 users (13%) have not received the equipment: the local distribution of the equipment for the users in Ukraine was not finalised at the time of writing of this report.
- 8 users (22%) have not replied to the survey.

A detailed list of purchased equipment for users is attached in Annex 1 of this report.

Outputs

- Survey Report: Hardware equipment, Network connection tests and the users' experience with computers, the internet and the ICPDR Information System, including recommendations for preparation of training and further development of the system.
- Online tool for connection speed tests and survey database are available for further use
- Operational computer equipment for users at national level (see Annex 1)

Recommendations

- Finalize distribution of equipment in Ukraine
 - If additional hardware or software is needed, the purchase procedure should be shortened
-

Planning and Upgrading at Central Level (2.4-1)

Tasks

Strategic planning and updating of software platform for ICPDR Information System at the central level

Activities

The survey mentioned in the previous section (Needs Assessment) also provided a basis for further development of the system on the central level.

Several recommendations for the operation of the information system have been worked out in cooperation with the ICPDR Secretariat (Institutional Setup, Facilitators, etc. - see outputs below).

The hardware platform of the information system was renewed to ensure availability and sufficient capacities for the work with the system.

The software platform (Oracle Database and Oracle Portal) was constantly updated to be on the latest available version in order to minimize bugs and security holes. This was done in close cooperation with Oracle Support (see Annex 2: Oracle Support Requests).

New features, based on the results of the survey, have been implemented into the system.

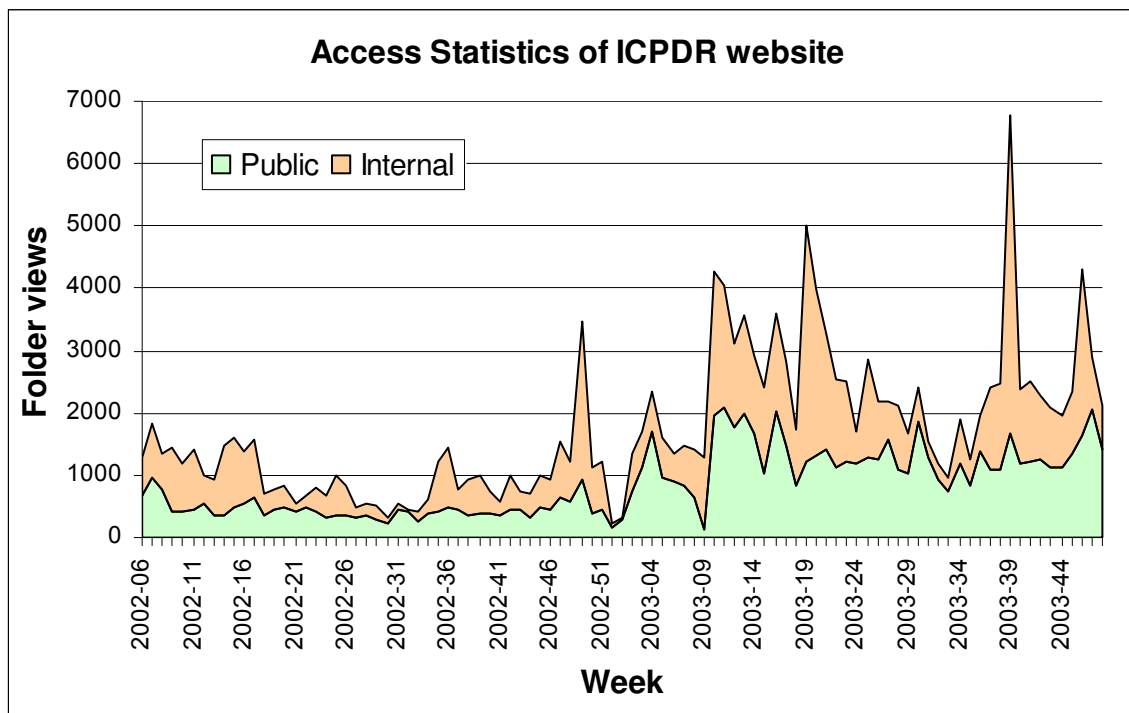


Figure 1: Weekly folder access of the ICPDR website, grouped by public and internal users

Note: Internal users are users which have logged in to the system, which means that members of ICPDR bodies are also included in the public users before they log in.

Outputs

- Outline of Institutional Setup of the ICPDR Information System
- Draft concept “The Role of Expert Group Facilitators and National Facilitators in the ICPDR Information System”
- Information System Overview including recommendations for further improvements (see Annex 3)
- Summary of System Options, giving a guideline on the future platform strategy with particular attention to the planned public website (see Annex 4)
- Installed new hardware for web server -> faster working experience on website, enlarged capacity (concurrent users)
- Installed new operating system Linux -> more stable and reliable operation of the server
- Changed database character set to Unicode (UTF8) -> support for all characters in the Danube region
- Upgraded Oracle Portal to latest available version of current release (Version 3.0.9.8.5)
- Additional software on the web server for sending MIME mails (attachments)
- New features:
 - Improved navigation bar -> easier handling of website
 - Additional search features (meta-search) -> more options in finding needed information
 - Customizable overview homepage -> better overview on newly added content
 - Customizable email notifications for new items -> keep users up-to-date automatically
 - Customizable email notifications for posts in discussion fora -> facilitate direct communication between users
 - Send files by email -> improve accessibility of large files
 - All meta information of content viewable by users -> improved transparency
 - Upgraded address book -> shared ICPDR contact list (emails, phone numbers, addresses) including group mail and export functions (e.g. for serial letter)
 - Several minor improvements for the event calendar, content management and user management
 - Access statistics on folder, user and group level available online -> in-depth monitoring on usage possible

Recommendations

- Reconsider the use of Oracle Portal as the platform for the system because of several limitations which became obvious during the more intensive usage and development of the system:
 - dependency on slow or inappropriate response by Oracle Support,
 - dependency on Oracle’s market strategy (integration of Portal into Oracle Application Server causing maintenance overhead, move from open to compiled code)
 - lack of flexibility in customizing components (display of folders, search results, report parameters) because of the wizard-based approach limiting the development and design,
-

- fixed site structure with folders, items and grouping by categories,
- Limited support for national languages: currently supported languages for the user interface are Czech, German, Hungarian, Romanian, Slovak and English (and other languages not relevant for the Danube region. Oracle has no plans to add more languages.
- Instead of storing files in the file system, Oracle Portal stores them in the database, creating additional complexity and hindering access by other common tools (e.g. anti-virus software, FTP)

As an alternative, open source software which is widely used, based on open standards, freely available and has a large user and developer community could be used. This would give more independence and allow more flexibility in development and design of the Information System (see also Annex 4: Summary of System Options).

- Elaborate and make available guidelines for sharing information in the system (scope, structure, obligatory meta-information) which can be easily followed by content providers and provides end users with better orientation on how to find what, where and when on the web site. Such guidelines can be formulated quite precisely for well-structured and often-used categories of information (e.g. ICPDR documents, calendar of events, meeting documents, addresses) and more flexible for other work related information (links to external information sources, draft documents).
- Elaborate and make available guidelines for other system-related procedures (e.g. how to become registered user, policy of access privileges, termination of accounts, update responsibilities, database maintenance)
- Evaluate the role of Expert Group and National Facilitators
- Establish pro-active support for the system

Project Webpage (2.4-1)

Tasks

Set-up and management project web page

Activities

The project website was based on the platform of the ICPDR Information System to ensure a quick setup and have an integrated system. The layout, structure, and functionality was developed in close cooperation with the project team.

Consultants of the DRP were provided with user accounts which gave them access to the internal working area of the ICPDR to have access to databases and working documents of the ICPDR Expert Groups. With the same account they could use the internal working area of the project website for sharing information within the consultant and project team.

The main focus of the project website is to make reports and other outputs of the project available to the public. The internal area is rarely used. This is also reflected in the access statistics.

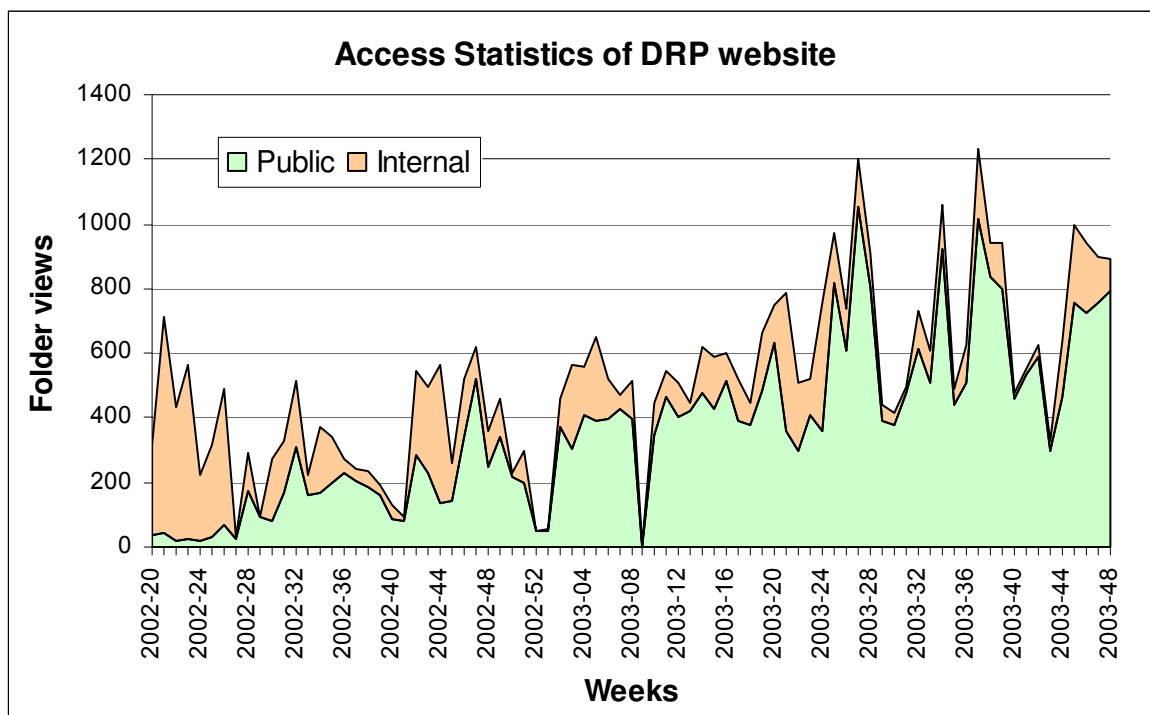


Figure 2: Weekly folder access to the DRP website, grouped by public and internal users

Note: Internal users are users which have logged in to the system, which means that members of ICPDR bodies are also included in the public users before they log in.

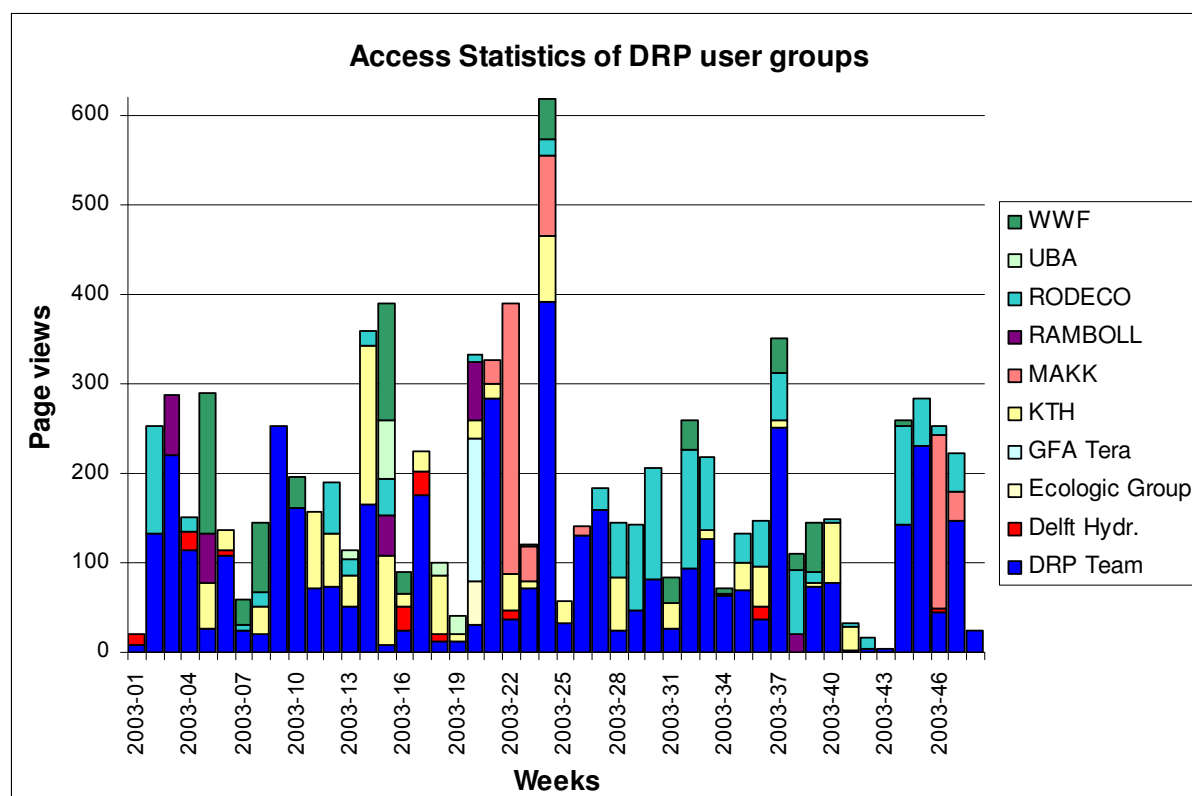


Figure 3: Access by user groups of Danube Regional Project in 2003

The figure below shows the usage of the ICPDR Information System (both ICPDR and DRP parts) by the user groups of the DRP (project team and consultant groups).

See Annex 5 for a list of the most requested folders and items on the DRP website.

Outputs

- Website which is functionally integrated into ICPDR Information System (search, calendar, tools for user and access privileges, content management tools)
- Public website including general information on the Danube region and project-related information
- Internal working area for information exchange between consultants

Recommendations

- Review website structure and content in regard to the planned public website of the ICPDR
- Evaluate usage by and needs of internal users

Training Program (2.4-4)

Tasks

Launch an extensive training program and organize a series of workshops at different user levels and in different regions of the Danube River Basin in order to train and assist future users in the best use of the tools made available by the system

Activities

A concept, training agenda, and a list of participants was developed in close cooperation with the ICPDR Secretariat.

Extensive training material (presentations, online help, online tutorials, manual) was prepared.

As a start event, a training workshop for Facilitators of Expert Groups and National Facilitators was organized in December 2002. During this meeting, the role of the newly introduced Facilitators was also discussed (see also output from “Planning and Upgrading at Central Level (2.4-1)”)

As a next step, a training workshop for the staff members of the Permanent Secretariat and the DRP Team was organized in the VIC.

From March to November 2003, national user trainings for Expert Group Members and other experts were organized in the Czech Republic, Moldova, Bulgaria, Bosnia & Herzegovina, Croatia, Hungary, the Slovak Republic, Romania, Serbia and Montenegro, Slovenia and Ukraine (in order of date of training).

The training covered the following topics

- Objectives, Benefits and Basic Concepts of the Information System
- Overview on the current content (documents, publications, databases) and functionality (e.g. address book, calendar, discussion forum, personal settings)
- Finding and retrieving information (searching for documents and querying databases)
- Adding information (files, text and links)

A total of 108 users attended the training workshops. The table on the next page shows the distribution of the participants among countries and Expert Groups.

A list of all participants of the training program is attached as Annex 6.

Country	APC/ EG	ECO/ EG	EMIS/ EG	FP/ EG	MLIM/ EG	RBM/ EG	RBM ECON/ ESG	RBM GIS/ ESG	S/ EG	Others	Total
AT	0	0	1	0	0	0	0	0	0	1	2
BA	1	1	1	0	1	0	0	1	0	2	7
BG	1	0	2	0	1	1	1	1	0	0	6
CS	1	1	0	0	2	0	0	0	0	8	12
CZ	1	1	1	0	2	0	0	1	0	1	7
DE	0	0	0	0	0	0	0	0	0	0	0
HR	1	3	1	1	1	3	1	2	0	4	17
HU	1	0	0	0	2	1	0	1	1	1	7
MD	1	1	1	1	1	1	1	1	1	0	8
RO	0	1	1	0	3	1	1	1	0	5	13
SI	1	0	1	0	2	0	0	1	0	1	6
SK	1	2	0	0	0	1	1	1	0	1	7
UA	0	0	1	0	1	0	0	0	0	7	9
PS, DRP	0	0	0	0	0	0	0	0	0	7	7
Total Sum	9	10	10	2	16	8	5	10	2	38	108

Table 1: Training Participation by Expert Groups and countries

Notes:

The total users can be less than the actual row sum, because one user can be member in several groups.

In Austria and Germany, no national training was organized. The participants from Austria are Facilitators.

The column "Others" includes Facilitators and Delegation Members

Outputs

- User manual available as online help system and printed training support material
- Animated tutorials for common tasks with the system available online
- 3-day training workshop for Expert Group Facilitators and National Facilitators
- 2-halfday training workshop for the staff of the Permanent Secretariat and the DRP Team
- 11 x 2-day training workshops on national level

Training Evaluation

After each training sessions, anonymous evaluation sheets have been filled in by the participants. The ratings have been compiled in a table (see Table 2: Training Evaluation Sheets Overview, on the next page).

The most often stated answer on the question about the most important part of the training was “working with databases” or something similar referring to the part on Database Queries in Water Quality, Emissions and other databases.

The most common recommendation was to include more practical exercises and work-related examples.

The comments can be summarized that this training sessions were quite well appreciated as an overview or introduction to become aware of the concepts, features and content of the information system. Further training should be more focused, shorter, in smaller groups, and with a clear task and immediate applicability in the work of the participants.

The complete list of answers to the open question is attached as Annex 7.

Further feedback and observations from training workshops

The training was also attended by participants which were not in the original list of participants, mainly local experts on water monitoring and related issues. This indicates that there is also a real interest in ICPDR activities by national experts which are not the official members of ICPDR bodies.

Several users asked for information on legislation, mainly related to the Water Framework Directive, which is not available (or outdated) in the system. This and other content related suggestions have already been stated by users during the survey - see Needs Assessment and Hardware Purchase on national level (2.4-1) and the related output for more information on this.

During the training, ad-hoc feedback was given by several participants, which helped improving the information system (see “Planning and Upgrading at Central Level (2.4-1)”) and giving recommendations for further training workshops.

The training also revealed some software bugs in the system, which existed before, but never have been encountered or reported by users (see also Annex 2: Oracle Support Requests).

Fast internet connections are technically available in all visited countries. The reliability of connectivity might still be a technical problems sometimes/somewhere. Another technical problem are outdated firewalls which cause access problems. But the main problem related to access seems to be not a technical but a financial one, i.e. the lack of budget or willingness of institutions/organizations to provide good (and costly) internet connections to the users.

Users know from experience that they rather get current documents sent by email than to find them in the system. Therefore, there is little incentive to visit the system. This results in rather low usage of the website, which probably leads to the situation that documents are still distributed as email attachments. It seems that this vicious circle can only be broken by a commitment by all involved users to use the system as the main sharing platform for information related to the ICPDR.

Workshop Title	Date	Location	Invited users	Partici-pants	Evaluation Sheets	Objectives spelled out	Objectives met	Rating (Median)				
								Overall Quality	Partici-pation	Methods	Appli-cability	
Training for Facilitators	5-7 December 2002	Bratislava	19	18	17	94%	100%	4	5	4	4	
User Training - ICPDR PS and DRP Team	24-25 February 2003	Vienna	9	7	4	100%	75%	5	4	5	4	
User Training - Czech Republic	5-6 March 2003	Brno	12	6	5	100%	100%	5	3	4	4	
User Training - Moldova	10-11 March 2003	Chisinau	7	8	8	100%	100%	5	5	5	5	
User Training - Bulgaria	17-18 April 2003	Sofia	9	8	7	100%	100%	5	4	5	5	
User Training - Bosnia and Herzegovina	20-21 April 2003	Banja Luka	10	7	5	100%	100%	5	3	4	4	
User Training - Croatia	08-09 May 2003	Zagreb	17	17	14	100%	100%	5	4	5	5	
User Training - Hungary	15-16 May 2003	Budapest	15	7	7	100%	100%	5	4	5	5	
User Training - Slovak Republic	19-20 May 2003	Bratislava	13	6	4	75%	75%	5	4	5	5	
User Training - Romania	26-27 May 2003	Bucharest	12	13	6	100%	100%	5	4	5	5	
User Training - Serbia & Montenegro	18-19 June 2003	Belgrade	10	14	10	80%	100%	5	5	5	5	
User Training - Slovenia	24-25 September 2003	Ljubljana	11	6	6	100%	100%	5	3	5	4	
User Training - Ukraine	13-14 November 2003	Kiev	13	9	9	100%	89%	5	4	4	4	
Total			157	126	102			Median	5	4	5	5

Table 2: Training Evaluation Sheets Overview

Notes on Table 2: Training Evaluation Sheets Overview:

As most facilitators attended two training sessions, they are counted twice in the totals

Objectives spelled out: percentage of users who answered yes to “Were the objectives spelled out at the beginning of the workshop?”

Objectives met: percentage of users who answered yes to “Did the workshop fully meet its predefined objectives?”

Rating (Median): the following criteria were scored by the participants with 5 being the best and 1 being the lowest mark:

- Overall quality of the training
- How was the level of participation?
- Were the training methods appropriate?
- What is the applicability of the training content to your working context?

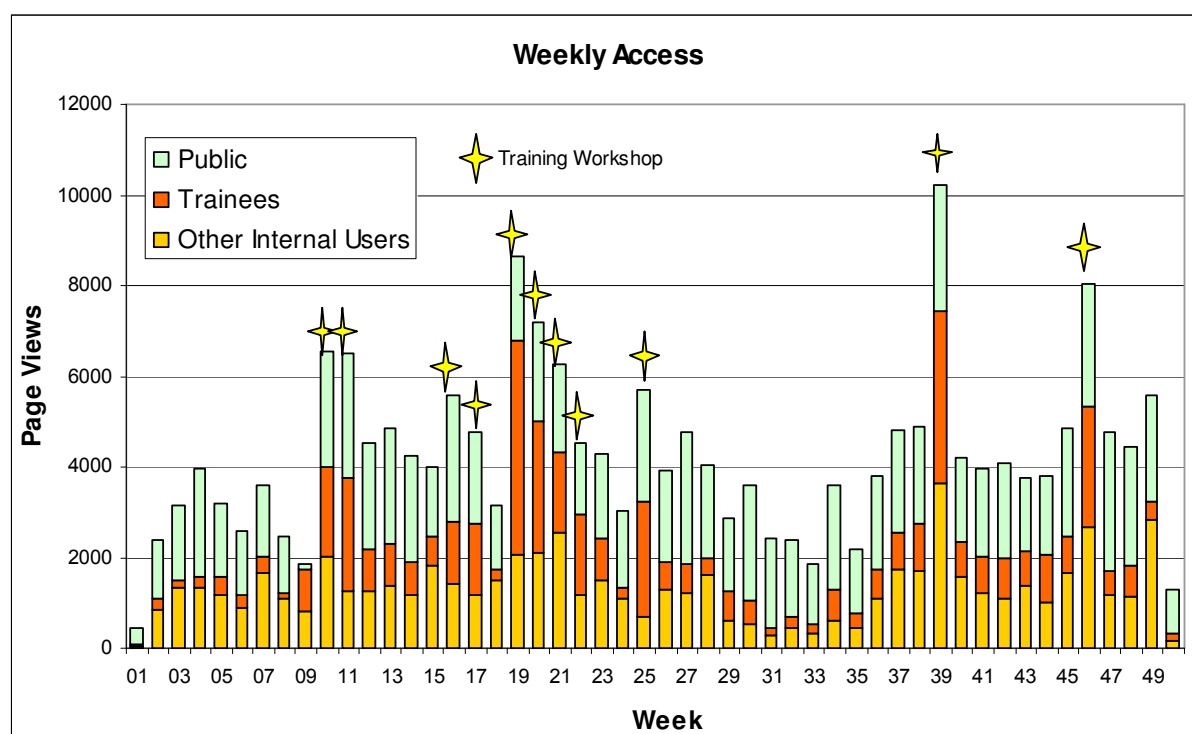


Figure 4: Weekly access statistics for website (with training sessions indicated)

The figure above shows the page views of the ICPDR Information System during the year 2003.

The page views are separated into three groups:

- registered users who participated in training (not only at the training sessions),
- registered users not participating in a training and
- public users (also includes registered users or trainees before they log in).

The training workshops are indicated in the week when they took place.

From this chart it is obvious to see that increases in page views were mainly due to the use of the system in the training workshops.

An exception to this is the week 39, which also shows a big increase of usage by other registered users – this was due to the system being used in preparation of the RBM/EG Meeting which took place in week 40 (about 2300 page views in this week by members of the RBM/EG). Also the peaks from weeks 19-21 are due to increased access by all Expert Groups, other peaks in usage are mainly due to increased activity in content publishing.

After each training session, the access by trainees goes down to a similar level as before. It could be concluded from this data, that the training seems to have no significant quantitative effect on the degree of further usage of the system. Of course, the qualitative effect cannot be judged by this analysis.

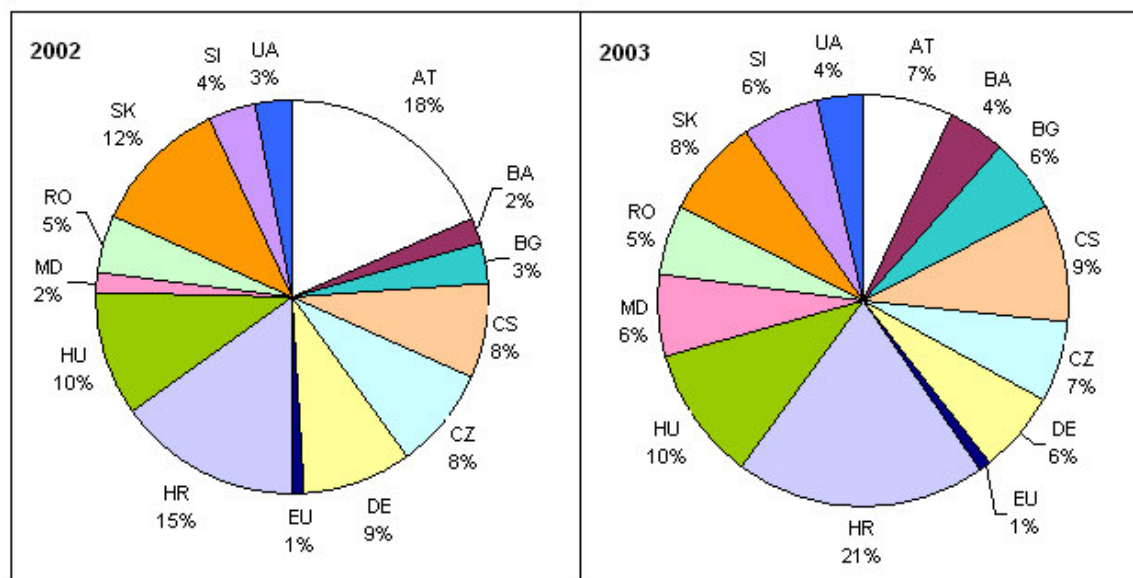


Figure 5: Share of website usage 2002 (Feb-Dec) and 2003 (Jan-Nov) by country's users

The pie chart above shows the distribution of users' access by countries in the period before and during the training sessions (based on the country the user is representing, and not where the user is located).

Recommendations

- Allow access to technical ICPDR databases (EMIS, JDS, TNMN, Bucharest Declaration, DABLAS) to all interested users by free registration
- Temporary user accounts have been created for attendants not being official members of an ICPDR body (20 users in the group Trainees). This list should be reviewed and accounts converted into permanent ones with access to the ICPDR databases.
- Further training should focus on specific tasks within the ICPDR work, and not on the system and its features itself. This should make it more obvious for the users that the Information System does not exist for its own purpose, but is a working tool which can help them with many tasks (e.g. analyze water quality downstream of a specific emission source, sum up emission loads on a sub-basin level, evaluate the effect of investment projects, compare survey results with samples of permanent water quality monitoring). The participants should therefore also be selected in relation to the specific task and not on a national basis.
- Training is better digestible in smaller doses. Therefore, it might be appropriate to attach short training workshop to other expert meetings. By organizing it in this way, the applicability to the topic of the expert meeting can be made more obvious (see previous recommendation).
- Increased usage of the system will also result in more feedback by the experts which is important for the further development and integration, particularly of the databases. This feedback loop between users and developers should be further cultivated.
- See also related recommendations in "Planning and Upgrading at Central Level (2.4-1)".

Support for TNMN, JDS and EMIS Database Harmonization (2.2-2)

Tasks

Assist and where necessary coordinate all project activities, which are related to the use of the DANUBIS, in particular activity 2.2-2: Further development of databases – EMIS / TNMN / JDS / ARS, etc. and links with DaNUbs and MONERIS

Activities

- Participation in the 1st Meeting of the Joint MLIM/EMIS Working Group
- Consulting on the implementation concept of harmonization by the Rodeco Group
- Improvement of user interfaces for the JDS, TNMN and EMIS databases taking into account recommendations from selected experts
- Presentation of a draft version of linked databases in the 2nd meeting of the Joint MLIM/EMIS Working Group and
- Upgrade EMIS Inventory database for import new datasets (Inventory 2002 having extended list of pollutants with Priority Substances, link to TNMN stations)
- Assistance in collection of data for the EMIS Inventory 2002 (modification of data collection sheets and database import procedures, data evaluation)

Outputs

- Extended and updated Emission Inventory with priority substances and link to TNMN Monitoring Stations
- Operational link from TNMN to EMIS database and vice-versa
- Operational link from JDS to TNMN database and vice-versa (currently year 2000 of TNMN, which is newest dataset) by matching River, River-km and determinand code.
- Corrected and extended dataset of JDS biological database
- Combined, more user-friendly search interface for chemical, biological and GC-MS parts of the JDS database
- All available on the website

Recommendations

- Further integration of databases (e.g. TNMN determinands and EMIS pollutants list)
- Further improvement of user interface and report customization based on feedback by users, particularly TNMN and EMIS databases.
- Integration of pan-European coding system into JDS Biological database
- Review and improve data collection procedures for Emission Inventory and TNMN Database
- More recommendations can be found in the Report of the Rodeco Group (“Preparation of a proposal for connection/operational link of the data collected during the Joint Danube Survey into ICPDR Information System, with particular attention to biological database”, Project Component 2.2)

Upgrade of the Danube Alarm and Emergency System (AEWS) (2.3-1)

Tasks

Assist and where necessary coordinate all project activities, which are related to the use of the DANUBIS, in particular activity 2.3-1: Reinforcement of AEWS – communication solution through DANUBIS

Activities

As a start, the current system documentation and other existing concepts for update were reviewed.

A decision-support paper for different upgrade options of the Danube Alarm and Emergency System (AEWS) was provided for the 26th APC/EG Meeting on 26/27 September 2002. The APC/EG agreed on option 2 (Integration of AEWS with ICPDR Information System).

Based on this decision, an application concept, including data, relational and functional models, was prepared for, presented, discussed and accepted at the 27th APC/EG Meeting on 7/8 April 2003 (see Annex 8).

Based on the refined concept and feedback from a subsequent questionnaire, the development of the application was started. Additional hardware (GSM modem Siemens TC35) and software (SMS Server Tools) was installed at the ICPDR web server.

In early July 2003, a prototype application was made available to all members of the APC/EG and to PIAC staff members for testing the functionality of the standard forms and notification by email and SMS.

At the 28th APC/EG Meeting on 8/9 September 2003, the further developed application was demonstrated and discussed (see Annex 9).

Until the end of October 2003, an online manual has been provided, a module for calculating alert thresholds was added and the reporting module was improved. The development of the application was finished.

Main features of the AEWS application:

- Messaging system for alert centers based on standard forms of the former system, including automatic notification of recipients by email or SMS as defined by the users. The message forms can be used to assess emissions, imissions and flow data, and enter causes of pollution, counter measures taken, observed effects, and any additional non-structured information.
 - Default routing of messages depends on the type of message and the river (e.g. warning is sent downstream, request for information upstream). This can be customized by the users.
 - Locations of incidents and water bodies are saved for later re-use in the system and for integration with a GIS system
 - Integration with the Danube Basin Alarm Model: data used for the DBAM can be entered into form fields or the DBAM data files can be distributed as attachments to a message.
 - Reporting: incident overview, messages overview and detailed messages list
 - Module for decision support on alert thresholds
 - The user interface and structured elements of messages (selection lists) are translatable in any language (translations have been provided by Hungary, Moldova, Serbia and Slovakia so far).
-

- Integrated with ICPDR Information System (user management, address book, file upload, discussion forum)

The APC/EG members or PIAC staff members of the following countries tested the system and reported that it is working for them: Austria, Bulgaria, Czech Republic, Hungary, Moldova and Serbia and Montenegro. In Bosnia and Herzegovina, Croatia, the Slovak Republic and Slovenia, some tests have been carried out as well.

There have been no tests so far in Germany, Romania, and Ukraine.

Outputs

- Detailed software concept web-based application for the AEWS with SMS and email notifications – approved by APC group (see Annex 8)
- Implemented and tested web-based AEWS application (see Annex 9)
- GSM modem and software for sending SMS installed at the web server - usable for any other applications

Recommendations

The new AEWS application is ready for operational use. Before operating the AEWS, a user training or workshop and a coordinated, full test of the system are recommended to ensure a common understanding of the intended usage of the system. It is also recommended to nominate a person who coordinates joint activities within the AEWS (e.g. regular test runs, configuration changes in the system).

Annexes

Annex 1: Hardware Purchase List

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Annex 1: Hardware Purchase List

Cntr.	Name	Equipment				Feedback					Problems
		PC	LJ	DJ	Modem	Inst.	Conn.	Operat.	Satisf.	Test	
BA	HADZIABDIC Andja	X	X	X	X	Y	Y	Y	Y	Y	
BA	BEZDROB Aida	X	X	X	X	Y	Y	Y	Y	Y	
BA	KORAC-MEHMEDOVIC Azra	X			X	Y	Y	Y	Y	N	
BG	ANDONOV Svetoslav (PIAC09)	?		?							
BG	DIMITROV Dobri	?		?							
BG	MOLLOV Michail	X	X			Y	Y	Y	Y	Y	
CS	IGNJATOVIC Jovanka (PIAC)	X		X	X	Y	Y	Y	Y	Y	Monitor was damaged, replaced under warranty
CS	LEKIC Dejan	X	X			Y	Y	Y	Y	Y	
CS	MILUTINOVIC Borisav Stevan	?		?							
CS	PETKOVIC Slobodan	?		?							
CZ	BERNARDOVA Ilya	X	X			Y	Y	Y	Y	Y	
CZ	KUPEC Petr	X		X		Y	Y	Y	Y	Y	
CZ	NEDVEDOVA Doubravka	X	X			Y	Y	Y	Y	Y	
HR	BENIC-EINBÜCHLER Natasa	X	X	X		Y	Y	Y	Y	Y	
HR	OMERBEGOVIĆ Visnja	X				Y	Y	Y	Y	Y	
HU	PATAKI Beata	X		X		Y	Y	Y	Y	Y	
HU	PINTÉR György (PIAC)	X		X		Y	Y	Y	Y	Y	
MD	CELAC Diana	X	X			Y	Y	Y	Y	Y	PC was damaged, repaired under warranty
MD	CELAC Diana	X				Y	N	Y	Y	N	restricted internet access
MD	GILCA Gavril	?	?								
MD	OVERCENCO Aureliu	X		X		Y	N	Y	Y	N	
RO	CHIRIAC Gabriel	X				N	N	N	N	N	PC was stolen
RO	CONSTANTINESCU Teodor	X	X			Y	N	Y	Y	N	
RO	DUMITRESCU Octavian	X	X			Y	Y	Y	Y	Y	
RO	MARA Septimus (PIAC)	X		X	X	Y	Y	Y	Y	Y	Missing Modem, found
RO	SERBAN Petru	X				Y	Y	Y	Y	Y	
SI	MATOZ Helena	X		X		Y	Y	Y	Y	N	
SI	POLAJNAR Janez	?		?							
SI	TOMAZEVIĆ Erna	X		X		Y	Y	Y	Y	Y	
SK	ADAMKOVA Juliana	?		?							
SK	KLINDOVA Adriana	?		?							
SK	SKODOVA Nada (PIAC)	X		X		Y	Y	Y	Y	Y	
UA	CHIZHMAKOVA Natalia	?									Equipment not distributed
UA	MOVCHAN Natalia	?		?							Equipment not distributed
UA	ROGACHKO Alla (PIAC)	?		?	?						Equipment not distributed
UA	SAMOYLENKO Victor	?		?							Equipment not distributed
UA	TSAPULOVITCH Ostap (PIAC)	?		?							Equipment not distributed

Explanations:

PC..... Compaq EVO D310V Minitower, Pentium IV, 2.4GHz Processor Speed, 512MB RAM, 40GB Harddisk, DVD/CD, CD-RW, WinXP Pro, 19" Monitor

LJ HP Laserjet 1300N, 16MB RAM, Jetdirect

DJ HP CP1700 Inkjet Printer, 20MB RAM, Jetdirect

X..... received

?..... purchased, no feedback if received

Inst. Equipment is installed

Conn..... Equipment is connected to the Internet

Func. Equipment is fully functional

Satisf. Equipment is satisfying recipient's needs for work related to the UNDP/GEF Danube Regional Project, activities of the ICPDR, and for purposes of overall cooperation in the Danube region

Test..... Hardware test carried out successfully

Problems ... Problems encountered during purchase or setup procedure

Y..... Yes

N..... No

Annex 2: Oracle Support Requests

TAR	Started	Ended	Problem	Solution	✓
3490358.995	20-NOV-03		Reports: NULL values of number columns are converted to 0 when exporting to Excel	Bugs:3270700 and 1798422, still exists in 9.0.2.6.18, no info on fix	
3358014.996	07-OCT-03	31-OCT-03	Charts: last row on first page is never displayed	Bug:3224590, no info on fix	
3435697.999	01-OCT-03	07-OCT-03	Reports: Special characters corrupted when exporting to Excel (with UTF8)	Bug:2993054 , will be fixed in 9.0.4 release but it is not yet	
3384899.995	02-OCT-03	07-OCT-03	Reports: total row count is wrong	Bug:2717419 , fixed in Portal 3.0.9.8.6	
2895625.995, 2696127.1	14-MAR-03	08-AUG-03	Reports: Special characters corrupted when exporting to Excel (with UTF8)	Could not be reproduced by Oracle Support	
3048025.996	30-MAY-03	30-MAY-03	Reports: URL contains '!' when linking to Report Parameters	Bug: 1708418, no info on fix, solved with workaround using Apache Redirect	✓
3062371.999	25-APR-03	19-MAY-03	Content Area: Item check-out does not work properly	Bug:2945944 , support patch provided, fixed in Portal 3.0.9.8.6	✓
2878116.995	07-MAR-03	30-APR-03	Content Area: When an item with subitem(s) is moved to another folder, the subitem(s) become separate items	Bug: 1816436, 2921586, one-off patch 4262442 provided, fixed in 9.0.2.0.97	✓
2895665.995	14-MAR-03	11-APR-03	Reports: Default row order options are not saved	Bug: 2883988, applied patch (backport 2669697)	✓
3027097.999	09-APR-03	09-APR-03	Forms: Default value for List of values does not work	Bug:2061560, fixed in Portal 9i, solved with workaround	✓
2938777.996	09-APR-03	09-APR-03	Forms: Dependent List of values do not work	Bug:2061560 , fixed in Portal 9i, solved with workaround	✓
2834121.996	20-FEB-03	21-FEB-03	Install: Missing file Catxsu.Sql	Bug: 2221280, applied patch 1866899	✓

TAR	Started	Ended	Problem	Solution	✓
2826577.996	18-FEB-03	20-FEB-03	Oracle Application Server 1.0.2.2.2 and Database 8.1.7 (8i) are certified with Red Hat 7.1, not with 7.3	Problem: UNOV ITS does not allow Red Hat 7.1, because of security issues, now running on 7.3 which is not certified by Oracle	
2849959.999	17-JAN-03	20-JAN-03	Migration from Windows to Linux and change of character set to UTF8	Confirmation that migration can be done according to document FULLEXP_309.PDF	✓
2762685.999	28-NOV-02	21-JAN-03	Search: Creator attribute is not searched	Bug:2656382, fixed in 9.0.2.2.14	
2552325.996	15-NOV-02	10-DEC-02	Forms: Performance problem with form based on many columns	Performance is better in Portal 9	
2629549.999	27-SEP-02	30-SEP-02	Reports: Unable to edit reports after upgrade to 3.0.9.8.4	Bug:2567445, applied patch	✓
2631049.995	12-NOV-02	15-NOV-02	Form: not possible to make form field "display only" in Insert mode	Workaround provided	✓

✓ fixed, solved or work around used

Annex 3: ICPDR IS Overview

ICPDR Information System Overview

This overview lists the current content, functionality, access rights and usage of the ICPDR Information System.

Content of Public Area

104 folders containing 1442 items (+database contents)

Table columns:

Content: Group of folders/pages/documents on the website

Description: more details on current content

Usage: based on page views during the month of September 2003.

Update: User/Group currently doing updates

Improvements: suggestions for further development

Content	Description	Usage	Update	Improvements
Danube Watch	6 issues as webpages, 1 as PDF	1433	Publish Factory	
Annual Reports 1999-2002	45 webpages	1019	Pmatter/AH	
Calendar of Events	472 Meetings, Workshops, Conferences, etc.	745	PS	Calendar view?
Joint Action Programme	PDF and HTML versions	254		*
Addresses	Several lists of addresses of President, HODs, Delegations, EG Members, PS (generated from Address Database)	267	PS?, each user	Include photos?
ICPDR Library	Database, DPCU infos	Database: 25	?	Update or remove database and outdated infos, Introduction
EMIS Recommendations & Guidelines	7 documents with translations in 9 languages	87		Introduction
Emission Inventory 2000	Database and PDF files	~360	?	Introduction
TNMN Yearbooks 1997-2000	HTML	60	Pmatter/AH ?	Review introduction
Study on Bioindicators	PDF	8		

ICPDR IS Overview

Content	Description	Usage	Update	Improvements
Joint Danube Survey	General Infos, Press release, Summary Report (HTML), Technical Report (PDF), Calendar, Photos, Video	210	?	Introduction, customizable database reports and charts
Investigation of the Tisza River	General Infos	6	?	--
Observers	PDF, Links	51	?	
Legislation Database	Database containing meta information on relevant EU legislation pertaining to water with references to full text in EUR-Lex, compiled in 1999	13	?	Update or remove database
Legal and Policy Documents	DRPC, Rules of Procedure, Financial Rules, ..., JAP	185	PS	*
Terms of Reference	of Egs	61	PS	*
List of major Decisions		70	PS	*
Finance & Administration	Budgets 1999-2003	28	PS	*
Meeting Summaries	1 st – 6 th STG, 1 st – 3 rd Plenary	61	PS	*
Announcements	May contain job positions, invitations for tender...	147	PS	
Danube Pollution Reduction Programme 1997-1999	Project outputs as PDF documents, 15 Thematic Maps	199		
Useful Links	~40 links to Environmental Organisations	122	?	Update or remove outdated links
History (DPCU outputs)	Contents of former DPCU Homepage (52 HTML and PDF pages): SAP, SIP, Applied Research Projects	~216		Review and maybe use general infos for new public website
DABLAS	Project Fact Sheets, Summary Report	49		Move somewhere else (?)

*) General remark: Currently, there are empty folders, obviously missing and duplicated documents, different ways of structuring the content, different extent of how meta-information (e.g. topics) are filled in. Therefore, Guidelines on who should update what, how and when should be defined and agreed upon

ICPDR IS Overview

Content of Internal Working Area (IWA)

394 folders containing 1442 items (+database contents)

Element	Description	Usage	Update	Improvements
ICPDR Meetings	164 documents of STG, Plenary, StWG and Ordinary Meetings	277	PS	*
APC EG IWA	158 items: Meeting documents, AEWS manuals, Reports on Tisza Accident 2000, Infos on related activities, Inventories	436	PS, EG, FAC	*
ECO EG IWA	78 items: ToR, List of Members, Meeting documents, Working documents (Work plan, JAP, List of protected areas), related infos,	271	PS, EG, FAC	*
EMIS EG IWA	23 items: Meeting documents, related documents, Emission Inventory (PDF files and database)	117	PS, EG, FAC	*
FP EG IWA	9 items: Meeting documents	92	PS, EG, FAC	*
MLIM EG IWA	184 items: Meeting documents, related infos (EU WFD Guidance documents, EU WFD related information, AQC 2002), Databases (Bucharest Declaration, TNMN, Joint Danube Survey), JDS (reports, presentation, meeting documents)	683	PS, EG, FAC	*
RBM EG IWA	174 items: ToR, List of Members, Meeting documents, Working documents (Work plan, Issue papers, Questionnaires, Roof reports, Maps), Related Information, WFD Implementation (ICPDR Chairpersons' Meetings)	3497	PS, EG, FAC	*
RBM/ECON ESG IWA	10 items: Meeting documents	24	PS, EG, FAC	*
RBM/GIS ESG IWA	73 items: ToR, List of Members, Meeting documents, Working documents (Work plan, Data Inventory and Exchange, Maps, Issue papers), Related Information (Euro Global Map, EU Working Group 3.1, IKSR)	105	PS, EG, FAC	*
S EG IWA	34 items: Meeting documents	118	PS, EG	*
DABLAS	Map and Database	44		

ICPDR IS Overview

Element	Description	Usage	Update	Improvements
Abbreviations & Acronyms	Database	28	All users?	
Socio-Economic Indicators	Database, Status 1999, data taken from National Reviews of the DPRP, partly used in DABLAS	11	?	
Investment Projects	Database, Status 1999, replaced by DABLAS Project database	0	?	
Water Service Policies	Database, Status 1999, data taken from National Reviews of the DPRP	0	?	
Financing Mechanisms	Database, Status 1999, data taken from National Reviews of the DPRP	0	?	
Addresses	Database of registered users with contact details. Group email and export functions	232	Each user, PS?	Define update responsibilities, extend scope (all relevant addresses)
Calendar of Events	Public version + internal events, additional search features		PS	Event registration feature, generate list of participants
National Information	2 items: Water Code of Republic of Moldova, Convention text in Slovene language	51	Nat. FAC?	Define goals and content and tasks of nat. facilitators
About the IS	Help, Tutorials, FAQ, Training, Users, Groups, Connection Speed Test, ...	540		
AEWS	Danube Accident and Emergency Warning System (test)		PIACs	

*) General remark: Currently, there are empty folders, obviously missing and duplicated documents, different ways of structuring the content, different extent of how meta-information (e.g. topics) are filled in. Therefore, Guidelines on who should update what, how and when should be defined and agreed upon

ICPDR IS Overview

Functionality

Feature	Description	Usage	Improvements
Personal Homepage*	Customizable views of new items, upcoming events, current discussion, favorite folders, saved searches		
Navigator*	Folder navigation tree and quick links		
Change password	Users can change their password	20	
Request new password*	Request if user has forgotten password	2	
Notify on login errors*	Email sent to ICPDR on failed login attempts	320	
Email notification*	Daily email on new and updated items and postings based on user's interest list (favorite folders and discussion fora)	Used by 44 users, sent 143 messages	Also include events
Set Language	Portal user interface also available in Czech, German, Hungarian, Romanian and Slovak. Only applies to Content Management and Development tools		
Full text search	Simple and advanced search tools for content area (HTML, PDF, Word, etc.)	587	
Meta Search*	Search for content by attributes (folder area, perspective, category, creation date, user, etc.)	42	Review perspectives (topics) and categories, update meta-information in items
ICPDR Documents Search*	Specialized meta-search on documents by Doc-No., Version, Approval Date	19	Guidelines for adding documents, review existing documents
Personal Folder	User's own folders	29	
Feedback Form*		0	
Send Email*	Send email from Address book		Add attachments
Email file*	Each file can be mailed to the user's email	651	Extend feature for sending several files at once and also to other users
Discussion Forum*	General and Expert Group's discussion fora	174	
Manage folder/items	Add and edit items (files, links, text),		
Text Editor*	Online WYSIWYG Editor for text items		
Folder Activity*	Report on access in each folder (available to folder owners)		
Create user*	User registration and notification form		
Access Statistics*			
Administration Tools*			

*) (partly) added non-standard functionality in Oracle Portal

ICPDR IS Overview

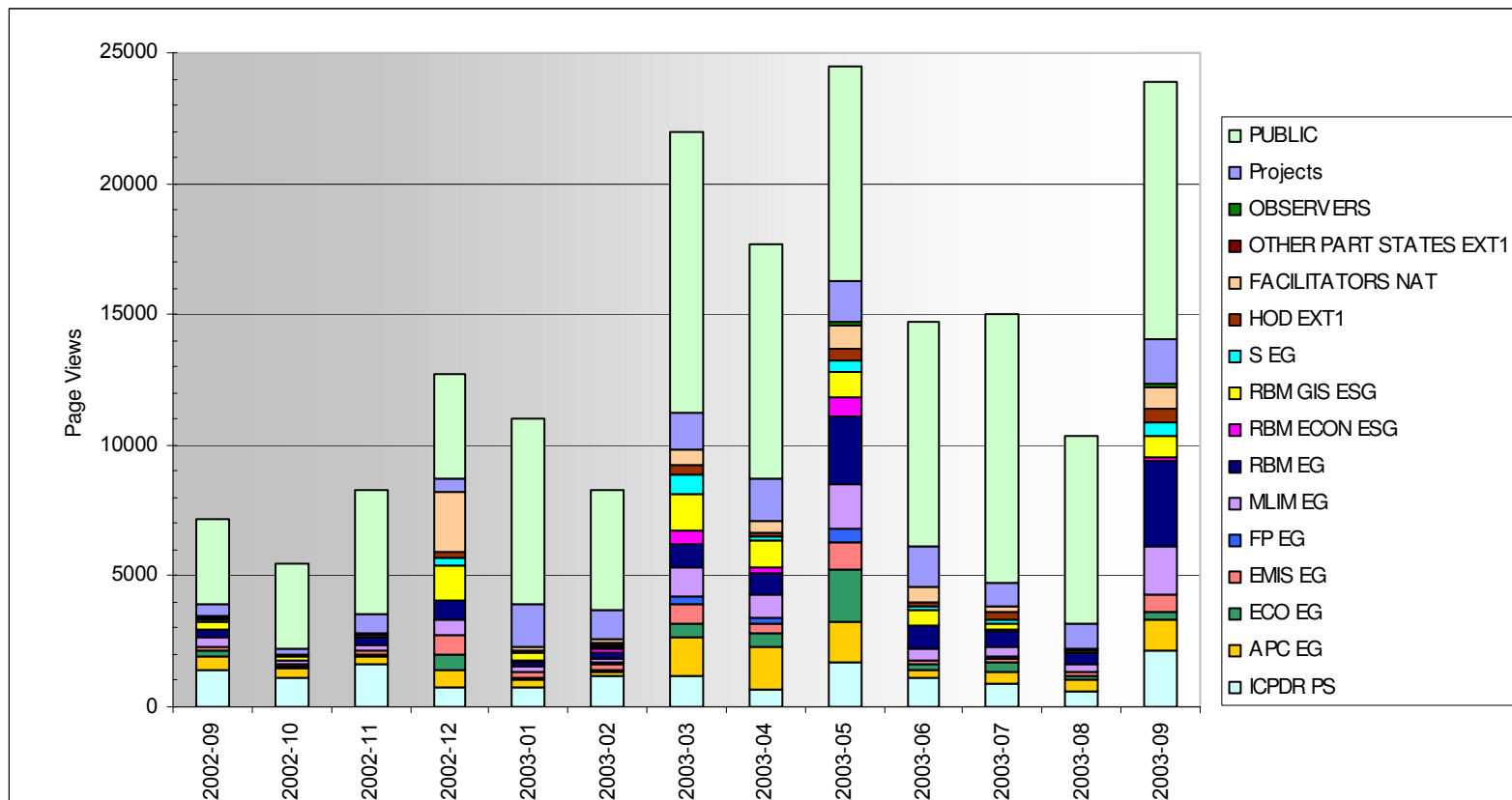
Access Rights

Levels: View – Create (with approval) – Mange (edit items) – Own (edit items and folders)

Group	Access Rights
ICPDR PS	View all*, edit addresses, edit events
Chairpersons, ICPDR/PS Technical Experts, Expert Group Faciliators	Own folders of relevant EG
National Faciliators	View all*, Own national folders
Expert Group Members	View all*, manage folders of relevant EG, Discussion Forum
Technical Experts of EGs	View and create in folders of relevant EG, use JDS Database
JDS Team	View and create in internal JDS folders
DANUBS, Moneris TE	View EMIS and MLIM IWA
President	View all*
HODs	View all*
Delegations	View all*
DRP Team	View all*
DRP TE	View all*
Italy, Switzerland Exp.	View all*
Trainees	View all*
Observers	View ICPDR Meetings folders
DABLAS	View DABLAS folder and database
PIACs	AEWS

*View all: all folders of the internal Working Area (incl. DABLAS, National Folders, About, Databases) with a few exceptions (restricted documents)

Usage by User Group



Projects: DABLAS, DANUBS, DRP, JDS, MONERIS

ICPDR IS Overview

MONTH	PUBLIC	ICPDR PS	APC EG	ECO EG	EMIS EG	FP EG	MLIM EG	RBM EG	RBM ECON ESG	RBM GIS ESG	S EG	HOD EXT1	FACILIT ATORS NAT	OTHER PART STATES EXT1	OBSER VERS	Projects*	Total	
2002-09	3241	1384	557	225	149		317	333		302	47	116			40	7	422	7140
2002-10	3212	1099	411	63	56		146	14		150	18	60			0	0	233	5462
2002-11	4770	1640	274	47	164		262	290		35	36	80			0	0	692	8290
2002-12	3977	775	649	597	692		621	768		1289	274	285	2264		0	0	510	12701
2003-01	7083	753	261	109	182	0	227	174	90	265	38	20	186		0	0	1642	11030
2003-02	4566	1173	125	72	248	62	150	257	109	111	63	98	117		0	21	1084	8256
2003-03	10720	1157	1492	516	746	287	1104	923	523	1391	761	367	574		0	33	1405	21999
2003-04	8900	662	1647	477	427	169	930	826	208	1005	152	136	434		0	29	1651	17653
2003-05	8180	1708	1517	2043	1039	518	1671	2565	758	966	463	442	917		0	111	1563	24461
2003-06	8558	1104	292	219	186	0	445	862	29	565	146	183	567		0	0	1533	14689
2003-07	10260	861	505	347	159	36	413	597	47	187	203	240	247		0	0	908	15010
2003-08	7175	613	443	151	144	11	246	428	28	77	9	34	41		0	16	945	10361
2003-09	9892	2173	1189	229	682	43	1853	3204	165	815	498	538	800		0	198	1638	23917

Overall Usage in September 2003

Total: ~25,400 page views (322,785 hits, 3.20 GB bandwidth usage)

Daily Average: ~847 page views (Min: 32, Max: 2,613)

Active Registered Users: 127 (36% of 355 Total Users)

Unique Visitors: 1080 (registered and public, based on IP address)

Annex 4: Summary of System Options

Summary of System Options

Alex Höbart, 26. November 2003

The new initiative for **redesigning the public area of the ICPDR website** poses new challenges to the tools used for managing the ICPDR Information System. The short-term decision on the platform used for the public website is an important one because it also affects the future strategy for the whole ICPDR Information System. This paper gives an overview on several options available.

Current System: Oracle Portal

The philosophy of Oracle Portal is a wizard-based site design, which enables a quick and easy setup of a web site by just selecting from a few options.

This approach limits the designer's possibilities for creating an attractive public website (e.g. fixed elements in the folder display, only colours and text styles can be changed). First discussions have shown that for the new task of creating an attractive website, it would be more appropriate to use a template-based approach which allows complete freedom for the design of the website.

Future Options for decision

1 Building the public website with Oracle Portal

1a Use current release (and develop add-on module for template display)

This option is in line with the current platform-related strategy to build on Oracle Portal. An add-on module has to be developed, which displays the content of a folder by applying a template which can be designed freely. The current, integrated content management tools for adding text, files and URLs can be used further.

This option would not take into account that a new version of Oracle Portal is now available (see next option). During a later upgrade of Oracle Portal such an add-on module has to be adapted again because of likely changes in the Oracle Portal repository and standard functions.

1b Use new release (and develop add-on module for template display)

This option is also in line with the current platform-related strategy but needs more time, as the upgrade to the new release and its new features have to be tested beforehand. This process also affects the internal area, i.e. all add-on modules (e.g. user management, e-mail notification, etc.) have to be adapted to changes in the new release of Oracle Portal.

The new Oracle Portal will provide „more flexible“ tools, but maybe not flexible enough, as the wizard-based approach is still used. Therefore, an add-on module allowing more flexible design for the public website might still be needed (as in option 1.1).

Both options (1a and 1b) will probably rely on a add-on module, which has to be developed and will result in two views of the public website: one for the public users (generated by the template-based add-on module) and another for the internal users (content managers). This is necessary because the Oracle Portal content management tools will be further used (it would not make sense to re-develop these tools, too), but is not an ideal situation.

2 Using a different platform (tool)

2a Use a different tool for the public website only

This option would simply abandon Oracle Portal as the platform for the public website in favour of a more appropriate tool (X – has to be selected). The new tool can be focused on the specific needs for designing and managing the public website. Such tools are available freely as open source software. The internal website based on (the current or upgraded version of) Oracle Portal will not be affected.

This option would end up with two separate systems, which might result in inconveniences for current users (e.g. two sites to search for content). In general, having two systems results in additional need for resources (financial, time, knowledge) and is therefore recommended on the long run. Integration of two different system is partly possible, but additional development efforts would be needed.

2b Migrate to a new, integrated Content Management System

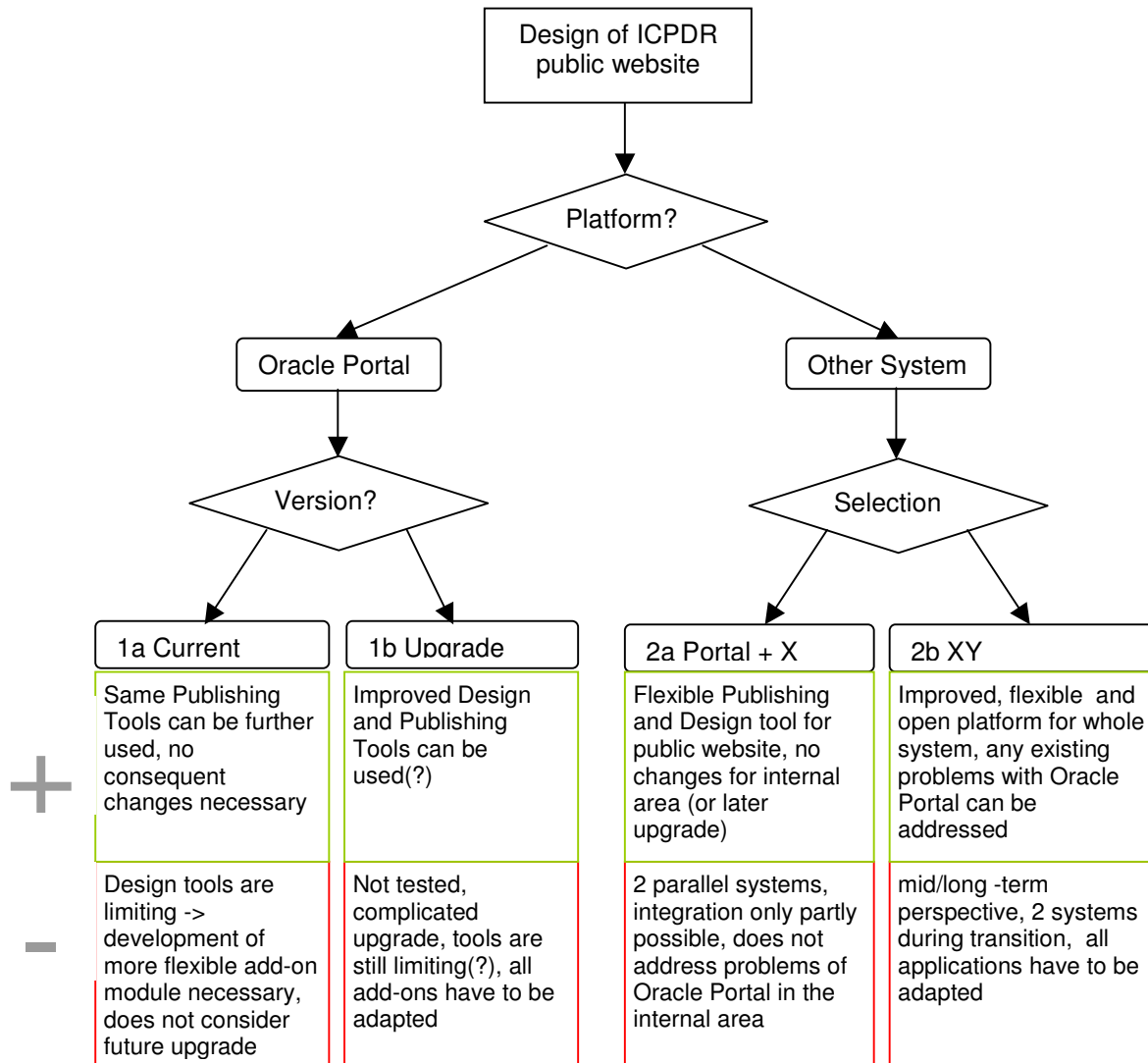
This option would aim at abandoning Oracle Application Server (including Oracle Portal) for the whole information system in favour of a more appropriate, but also integrated platform (XY). As this option would bring the most changes, it can be regarded as a mid- or long term follow-up for option 2.1.

Such a new system should also operate on the Oracle Database, as it is a well established, flexible and reliable Database Management System and the existing data and functions of the database can be further used without migration to another system. To keep the continuity, it should also be possible to move the current website content (text, files, URLs) to the new system. Already well-known features of Oracle Portal should be similarly available in an integrated user interface, especially for the end users (which have been trained recently).

In contrast to Oracle Portal, it should be open source software and based on widely used and freely available technologies (e.g. PHP web-scripting language). For such an environment, many common components are freely available in the public domain, especially for non-profit use, which can be integrated into a custom built system. Such system would offer much more flexibility (in development, design and usage) and independence (from Oracle's market strategy and support).

For such a change of platform, considerable development efforts would be required initially. In the long run, further development needs would tentatively be lower because the system's complexity is reduced (PHP instead of Oracle Application Server), support can be asked not only from Oracle professionals but from a much bigger development community, many standard components are freely available (public domain) and no complicated workarounds and add-ons are needed (open source). Furthermore, license and support costs for Oracle Application Server are avoided.

Decision-making tree



Explanations:

Design and Publishing Tools: Oracle Portal uses wizard-based tools which are easy to use but do not allow full control of layout and style of the webpage. Alternative: template-based tools, where a programmer develops a template for a webpage and has full control of it's layout and style; content managers have easy to use tools for publishing.

Add-on modules: as Oracle Portal tools cannot be changed (only some configuration possible), custom needs have to be addressed by developing additional software components based on the Oracle Portal database repository. As the Oracle Portal repository might change with a new release, such add-ons have to be adapted to these changes when upgrading to a new Oracle Portal release.

Integrated system: using the same platform (hardware, software) for all applications, resulting in simplified maintenance, development and usage of system (e.g. common look and feel, search, notifications, favorites, passwords and management of access privileges)

Annex 5: Access to items on DRP website

List of most accessed folders and items (files) on the project website from January to November 2003.

	Folder/item	Views
1	HOME	5046
2	PROJECT-ACTIVITIES-	2425
3	PROJECT-DOC-	2054
4	PROJECT-OVERVIEW-	881
5	DANUBE_RIVER-THE_DANUBE_BASIN-	687
6	PROJECT-EVENTS-	685
7	DANUBE_RIVER-COUNTRIES-	637
8	PROJECT-	602
9	PROJECT-OBJECTIVES-	582
10	PROJECT-IMPLEMENTATION-	579
11	PROJECT-CONTACTS-	562
12	DANUBE_RIVER-ISSUES-	535
13	PROJECT-DANUBE_BLACK_SEA_STRATEGIC_PARTNERSHIP-	528
14	WORKING_AREA-	448
15	DANUBE_RIVER-LOOK_AND_LISTEN-	415
16	DANUBE_RIVER-COUNTRIES-COUNTRIES	392
17	DANUBE_RIVER-THE_DANUBE_BASIN-DANUBE_RIVER	390
18	PROJECT-ACTIVITIES-PUBLIC_PARTICIPATION_WORKSHOP-	340
19	DANUBE_RIVER-	307
20	PROJECT-ACTIVITIES-PUBLIC_PARTICIPATION_AND_ACCESS_TO_INFORMATION-STAKEHOLDER_CONSULTATION_MEETING-	306
21	PROJECT-ACTIVITIES-SUPPORT_TNMN_AND_EMIS_INVENTORY_HARMONIZATION-	290
22	PROJECT-DOC-PROJECT IMPLEMENTATION PLAN_FINAL.PDF	233
23	PROJECT-ACTIVITIES-PUBLIC_PARTICIPATION_AND_ACCESS_TO_INFORMATION-	227
24	PROJECT-ACTIVITIES-PROJECT_PROGRESS-	207
25	PROJECT-ACTIVITIES-TARIFFS_AND_CHARGES-	206
26	PROJECT-DOC-INCEPTION_WORKSHOP-FINAL_REPORT.PDF	204
27	PROJECT-ACTIVITIES-STRESS_IMPACT_ANALYSIS TYPOLOGY ECOLOGICAL CLASSIFICATION-	196

	Folder/item	Views
28	PROJECT-ACTIVITIES-AGRICULTURAL_POLICIES_AND_PILOT_PROJECTS-	193
29	DANUBE_RIVER-THE_DANUBE_BASIN-HYDROLOGY2	191
30	DANUBE_RIVER-COUNTRIES-ECONOMY	177
31	DANUBE_RIVER-ISSUES-AGRICULTURE	176
32	DANUBE_RIVER-THE_DANUBE_BASIN-WETLANDS	168
33	PROJECT-ACTIVITIES-TRAINING_AND_WORKSHOPS-	166
34	PROJECT-ACTIVITIES-MONITORING_AND_ASSESMENT_OF_NUTRIENT_REMOVAL_CAPACITIES-	163
35	PROJECT-ACTIVITIES-APPLYING_EU_ECONOMIC_GUIDELINES_FOR_ECONOMIC_ANALYSIS-	163
36	DANUBE_RIVER-ISSUES-NAVIGATION	160
37	DANUBE_RIVER-ISSUES-MUNICIPALITIES	157
38	WORKING_AREA-LAND_USE_ASSESSMENT_AND_INVENTORY_OF_PROTECTED_AREAS-	154
39	PROJECT-DOC-PROJECT_BRIEF_PHASE_1-	152
40	PROJECT-OBJECTIVES-CHART-	149

Annex 6: Training Program - List of Participants

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Annex 7: Training Evaluation – Complete list of answers to open questions

Did the workshop fully meet its predefined objectives?

If not, please tell us, why.

Partly, since we did not have enough time to discuss all topics. this mainly due to the fact that the time of the beginning has not been met by the participants
--

Which part of the training content was most important for you?

1st day discussions, training
Access the database
Access to data and edit items
Access to databases
Access to the documents of the Convention as much as possible including drafts
Actual minutes of meetings, Overview maps and charts, Linkage to many items and databases
Adding information in the system
AEWS Folders and GIS folders, information from meetings
all
All
All
all
All items were interesting and very useful, although I use it daily
All parts
All parts are important but maybe how to edit folders and sub-folders
All parts of the training content were important and useful
All parts of the training content were very useful and interesting
All parts of the training were imporant for me
All parts were important
All parts were important
All the parts of this training were important for me
Basic overview of the system, How documents, folders, calendar, addresses are accessible
Create and improve my personal homepage, searching
Data on Hydrochemistry and Hydrobiology
Database
Database
Database components, Navigation (Personal Homepage)

Which part of the training content was most important for you?

Database operations
Database TNMN Water Quality and Reports, Charts etc.
Database TNMN Water Quality and Reports, Charts etc.
Database using
Database, Content Management
Databases
Databases
Databases and discussion forum
Databases and reports
Databases, Expert Groups, Water quality map
Databases, National Information, Joint Danube Survey
Details on the Danubis
Discussion about the possible tasks of facilitators
Document searching
Edit folders, Databases
EMIS Inventory
Every part of the training was important
Everything is useful and important for me
Exercises
Expanding my knowledge of the system, on Information System I know how use database components
Expert Groups, maps, database
Explanation of different databases
Extent of searching
Finding and retrieving information from databases, Gving and receiving access rights, Customizing your folder and home page
Folder editing
General concept -> possible uses (1st day), Working with folders and access rights (2nd and 3rd day)
General increase of knowledge in handling the DANUBIS
General information of everything - as a good start to implement in my job
Handling new content, search
I think all the training was important
Informational content (specifically regarding monitoring network, water quality and regulations
Introduction to the different features of the IS, Online help - features are very good and helpful
MLIM/EG Folders

Which part of the training content was most important for you?

Navigation, databases
Navigation, using reports or charts to display data, editing databases, general communication
on job training
Overview on the current content & functionality, Finding & retrieving information, Database queries
Practical
Practical exercise
Practical exercises of DANUBIS possibilities
Practical Training
Practical training on the computer, relaxed atmosphere and time for discussion and questions, very capable trainer
Practical work
Practical work with PC
RBM/ECON ESG
Search options and content of databases
Search options, Databases, File management
Search, General information in handling DANUBIS
Searching of databases
Searching the information throughout the website and within the databases, Editing the files and other info into the accessed folders
Second one
The first day of the training (navigation and search)
The most important part was the practical part of the training, when we got knowledges about how to use information and data from the IS.
The part regarding the seeking and modifying the databases
The result of survey, how work with data
The training sessions
The training was very useful, important for me. All parts were interesting.
To take time to look to the system
training in the computer laboratory
Use databases was the most important, and General Discussion Forum
Using of the web application in a sense of knowledge exchange
Website concepts, User and Access Rights Concepts
Work under the Internal Working Area
Working in Internal Working Area (Expert Groups)

Please give us some recommendations of what could be improved next time such a training workshop is held.

Accelerate fulfilling the actual minutes of EG and other meetings, keep topic actualization of the topics/databases/items
Adding information
All is o.k.
All was OK
At the end of the training it would be good to make an exercise (given scenario) which will include all important elements for creating and maintaining the national content (pages) under the Danubis
Concentrate on specific topic users needed
Draw more participants
Everything was excellent, so I do not have recommendations
Facilitator was well prepared and well organized. In general, I'm happy with workshop. Maybe a little bit more interactive presentations
Faster connections to the internet/ICPDR server, Develop concrete examples to try the different features, Two days would be enough (if the internet-connection is o.k.)-> make the course more compact
Faster Internet connection, more time (3 days)
Follow this way
From time to time approve the knowledge of members of EG
Higher participation
I don't have any other recommendations
I have no suggestions. It was excellent.
I would benefit if translation would be provided. Translation into national language is needed
I'm not sure it is necessary, as everything is clear and well done.
Improve the HW to become faster
Increase the number of participants
It is enough for such kind of training
It should be only 1 day and in very condense form! Because I have used the system already
It would be very good if the practical examples will be presented on a sheet of paper to be able to follow each step (because sometimes when we do one step we don't see the next one).
It's not easy to follow the trainer through web site in such short time available
Less training participants
Maybe it will be better to work with a small group of people
Maybe it would be enough to have just 1 day of such a training with a little bit faster proceeding
Maybe with the Expert Group separately
More examples from the real life
More exercises

Please give us some recommendations of what could be improved next time such a training workshop is held.

More graphics if possible
More images and music
More individual exercises
More users (potential) of Danubis system to be included in the training workshops
National Presentation
No recommendations
No special recommendations. We enjoyed it.
No suggestions
Not only the features of the IS should be explained on the training session. Ideas about system usage (why to use it?) should be also shared.
Please organize the same training yearly
Quicker Internet access
Reliable computers so everybody could be at the same step of the training
SOPs already prepared for the different tasks to discuss
State officials need permanent access to internet databases
Tell something about operation of IS in VIC
The Danubis training is very good and does not need major improvements; improvement is needed with the time discipline of the participants
The training workshop was very appropriate and useful
To organize for observer as well
To organize training in Expert Groups
Try to find real needs of the participants before training
You need to insert in the training "active component" (like "ice-breakers", "brainstorming", work in team)

Annex 8: AEWS Application Concept

including Data Analysis, Function Model and Presentation

Draft Concept for the Danube AEWS

Prepared by Alexander Höbart, 14 March 2003

This paper describes the basic concept for a web-based communication application for the Danube Alarm and Emergency System (AEWS). The AEWS application should cover all the functionality of the current IPS software. It resides on the web server of the ICPDR Information System and can be used with a standard web browser from any internet-based PC.

Approach

After the agreement in the 26th Meeting of the APC Expert-Group on the proposed option to integrate the AEWS with the ICPDR Information System, the following steps have been taken:

- Technical solutions for sending SMS have been researched (see first point under Further Open Questions).
- A hardware survey among the PIACs has been carried out (see Requirements at PIACs).
- The current AEWS and IPS manuals, as well as the Standard Forms and Forms from the Annex of the 26th EG Meeting have been reviewed and used as a basis for the following draft outline, data model and function model of the AEWS application.

Further steps to take:

- Discussion, refinement of and agreement on this concept paper (requirements, data model, function model, further open questions)
- Development of prototype application
- Test of prototype with PIACs
- Finalisation of development
- Preparation of manuals

Requirements at PIACs

- Standard PC with Internet connection and web browser (Internet Explorer recommended) for accessing the web-based application.
- Email account for receiving notifications by Email.
- GSM mobile phone for receiving notifications by SMS.

The hardware survey carried out in October 2002 had the following results:

- The DRP will provide PCs for the PIACs of Bosnia & Herzegovina, Bulgaria, Hungary, Romania, Slovenia (Janez Polajnar), Slovakia, Ukraine (both PIACs) and Yugoslavia.
- The PIAC of Czech Republic is already well equipped.
- There was no information received on the equipment of the PIACs in Croatia and Moldova.
- Mobile phones are already available at the PIACs in Bulgaria, Czech Republic, and Slovakia.

The following table shows the collected results of the connection tests:

User	IP Address	Tests	Avg KB/sec	Min KB/sec	Max KB/sec
PIAC03	195.47.107.152	5	18.5	11.6	23.0
PIAC05	212.108.234.140	5	19.2	5.9	34.7
PIAC08	194.102.67.2	1	2.3	2.3	2.3
PIAC11	194.42.194.51	2	0.6	0.5	0.6

KB/sec = transferred kilobytes per second

From these very few results, it can only be assumed that PIACs 3 and 5 have appropriate connection speed, while the other results indicate that there is need for improvement. It would also be important to carry out more tests before to have a clearer picture of the overall situation.

Outline of a web-based AEWS

- The application will be accessible at <http://www.icpdr.org/aews>.
- To use the AEWS, users have to log in with a personal username and password. The user management functions of the ICPDR Information System will be used. Each user is associated with a PIAC.
- The logged in users will have an intuitive user interface to read and send different kinds of messages based on the Standard Forms.
- The user can send messages on behalf of his/her PIAC and read all other messages in the system.
- The Standard Forms are the basis for the needed fields in the message forms. There will be different forms available for the following types of messages:
 - First message (Warning or Request for information)
 - Standard message (to give any kind of additional information, combines Forms 1-4)
 - Confirmation (to confirm incoming message, Form 6)
 - End-of-Alert (Form 5)
- Notifications to receiving PIACs can be sent by Email and SMS.
- Whenever possible, form values are filled in automatically, e.g. date, user, sending PIAC. Also, receivers of messages are selected automatically from the routing definition, additional receivers can be selected.
- Reports on incidents within a certain period of time for all or selected PIACs can be viewed and exported to Excel or ASCII file.
- Primary language in the application is English. The user-interface and values of selection lists can be translated into other languages. Each user can set a preferred language.
- Administrators can edit settings (PIAC addresses, translations, message routing).
- The message forms should be saved on the local PCs of the PIACs, in order to have them available offline in the case the server cannot be reached. The forms can be filled out offline, saved, printed and sent by fax. The saved forms can later be submitted to the online system.

Data Model

For the purpose of developing a database application, the information contained in the Message Forms has to be structured clearly and suitable to the requirements of the application. A first draft of the field definitions and relations is presented in the annex.

In a first step, the different form sheets have been compared to find same kind of information in different forms (e.g. “waterbody further affected” is field 6.3 in 1st message, E5 in Form1 and F5 in Form4).

The second step was to define distinguishable groups of fields, i.e. entities (message header, assessment, ...).

The third step was to define the relations between these entities. This draft aimed at a simple approach by minimising the number of relations. The model can be adapted, if a more sophisticated structure is needed, e.g. a message should contain more than one assessment.

One important suggestion is to define locations (i.e. waterbodies, monitoring stations, etc.) separately and wherever possible beforehand. With this structure, existing locations can easily be selected, when writing a message. Furthermore, this would make it possible to find all information related to a location later and ease possible integration with a GIS.

The addresses of and routing between PIACs will be defined in separate tables.

Additional lookup tables not mentioned in the simplified data model will contain the values for the selection lists and translations.

For user information (names and access) the user management functions and tables of Oracle Portal (i.e. the ICPDR Information System) will be used.

Function Model

The function model describes the functionality of the application, i.e. the processes applied on the data, or “what the user can do”.

After the login, the system displays an overview screen with the most important information (e.g. incoming messages which have to be confirmed, messages of current incidents) for the user/PIAC. The first screen also gives access to all functions needed (read and send messages, reports, address book, settings). The chart in the annex illustrates the available information, functions and forms.

Further Open Questions

The following questions are for further discussion and decision:

- There are 2 options for sending SMS:
 1. Sending SMS directly from the ICPDR server, i.e. implementation of an own SMS Gateway: installation of additional software and GSM modem(s) necessary. Software is available freely (e.g. SMS Server Tools, more information at <http://www.isis.de/members/~s.frings/smstools/>). A GSM modem (e.g. Siemens TC35) costs about €300.-. The monthly costs of a contract with any GSM network provider and cost for each SMS have to be added.
 2. using an outside Email-SMS Gateway: several companies offer this kind of service, e.g. from IC₃S, setup cost €500.-, running cost €230.- per month and €0.06 per SMS, more information at http://www.ic3s.de/product_details.php?lg=en&id=103

Note: for both options, the only costs for PIACs are the monthly costs of the GSM network provider and – in some cases – costs for receiving SMS, this depends on the local provider.
- It is also possible to add an option to send notifications by fax. Similar to sending SMS, this can be done either with additional software and modem(s) installed at the server or through an Email-Fax Gateway.
- Integration of existing functionality of the ICPDR Information System, e.g. a folder for uploading files related to an incident
- Integration of a database of (dangerous) substances (for looking up the codes of substances).
- Assurance of prerequisites at PIACs (PCs, Internet connection, mobile phones).
- User Training
- Translations
- Integration with ADONIS-Network (digital radio system for the Ministry of Interior and all public safety organizations, planned implementation in Austria 2003-2005) and TETRA (radio system standard)
- Timetable of development and implementation

AEWS Data Analysis

Group	Grouped fields
Field	Field Name
Default Value	Default Value in Form Field
Selection List	List of selectable values
Remark	Comments
Standard Forms	Field Label in Standard Forms (AEWS Manual)
1. Msg.	Field Label in new 1st Message Form (Annex 26th Meeting)
Form 1	Field Label in Form Sheet 1 (Annex 26th Meeting)
Form 3	Field Label in Form Sheet 3 (Annex 26th Meeting)
Form 4	Field Label in Form Sheet 4 (Annex 26th Meeting)
Form 5	Field Label in Form Sheet 5 (Annex 26th Meeting)
Form 6	Field Label in Form Sheet 6 (Annex 26th Meeting)

Group	Field	Default Value	Selection List	Remark	Standard Forms	1. Msg.	Form 1,2	Form 3	Form 4	Form 5	Form 6
System internal fields	Message ID	<Sequence>		system internal							
	Parent Message ID	<Message id of related msg.>		Reference to previous message							
	Message Status	new		other values: sent, confirmed, corrected							O
Message Header fields	Message Date	<Current Date>	Format: YY-MM-DD	not changeable	A4, M4, S4	7.1	C3	C3	C3	C3	C3
	Message Time	<Current Time>	Format: HH24:MI	not changeable	A5, M5, S5	7.2	C3	C3	C3	C3	C3
	Message Type	Warning	Warning, Request, Suppl.Info, Correcting Info, End-of-Alert		W	top		x		N	
	Label	Incident+PIAC+ Sequence		default value generated automatically	x	1.2	B	B		B	B
	Sender (PIAC)	PIAC of current user		not changeable, except for Administrators	A1,M1, S1	2.1	C1	C1	C1	C1	C1
	Sender (User)	Current user		not changeable	A3, M3, S3	7.3	C2	C2	C2	C2	C2
	Receivers	<from routing definition>	PIAC1,PIAC2,...	default is changeable		2.2	A1	A1	A1	A1	A
	Test	No	Yes, No								
	Send Notification	Yes	Yes, No								
Suppl. Info follows	No	Yes, No			bottom						

Group	Field	Default Value	Selection List	Remark	Standard Forms	1. Msg.	Form 1,2	Form 3	Form 4	Form 5	Form 6
Assessment of Pollution or other Determinands	Assessment Type	Emission	Emission, Imission, General Determinand			1.1					
	Substance Category		Oil, Chem. Substance, Others			3.1					
	Substance Code			List from Substance Database?	H3, R3						
	Substance Name			Substance Database?	H1, R1	3.2	F1	F1,J1			
	Danger Code			Substance Database?	H2, R2						
	Quantity			Discharge, Concentration or other value	I1 K, R7 6.2c, J	4.1a 4.2a	F2 E3	F4,5? J3? K			
	Unit		m ³ , l, t, kg, mg/l, m ³ /s	List depends on substance category		4.1b 4.2b	F2	F4,5? J3?			
	Observation/Measurement Date	<Current Date>	Format: YY-MM-DD		C1, O1, R4	5.1	E2	J2?	F2		
	Observation/Measurement Time	<Current Time>	Format: HH24:MI		C2, O2, R5	5.2	E2	J2?	F2		
	Flow					6.2c	E3				
	Waterbody further affected		<Locaction Names>	referencing Locations table		6.3	E5		F5		
	Duration of discharge				I2			F6			
Length of plume							J4				
Causes	Causes of pollution		List	Value from list or free text	E1		G				
Measures	Counter measures taken		List	Value from list or free text	G		H				
Effects	Significant effects		List	Value from list or free text	F, Q		I	I			
	Length				Q4		I4	I4			
	Width				Q4		I4	I4			
End of Alert	Reason		List		W3				N		
Text	Remarks				L, Q5, R8						

D5?

E6?

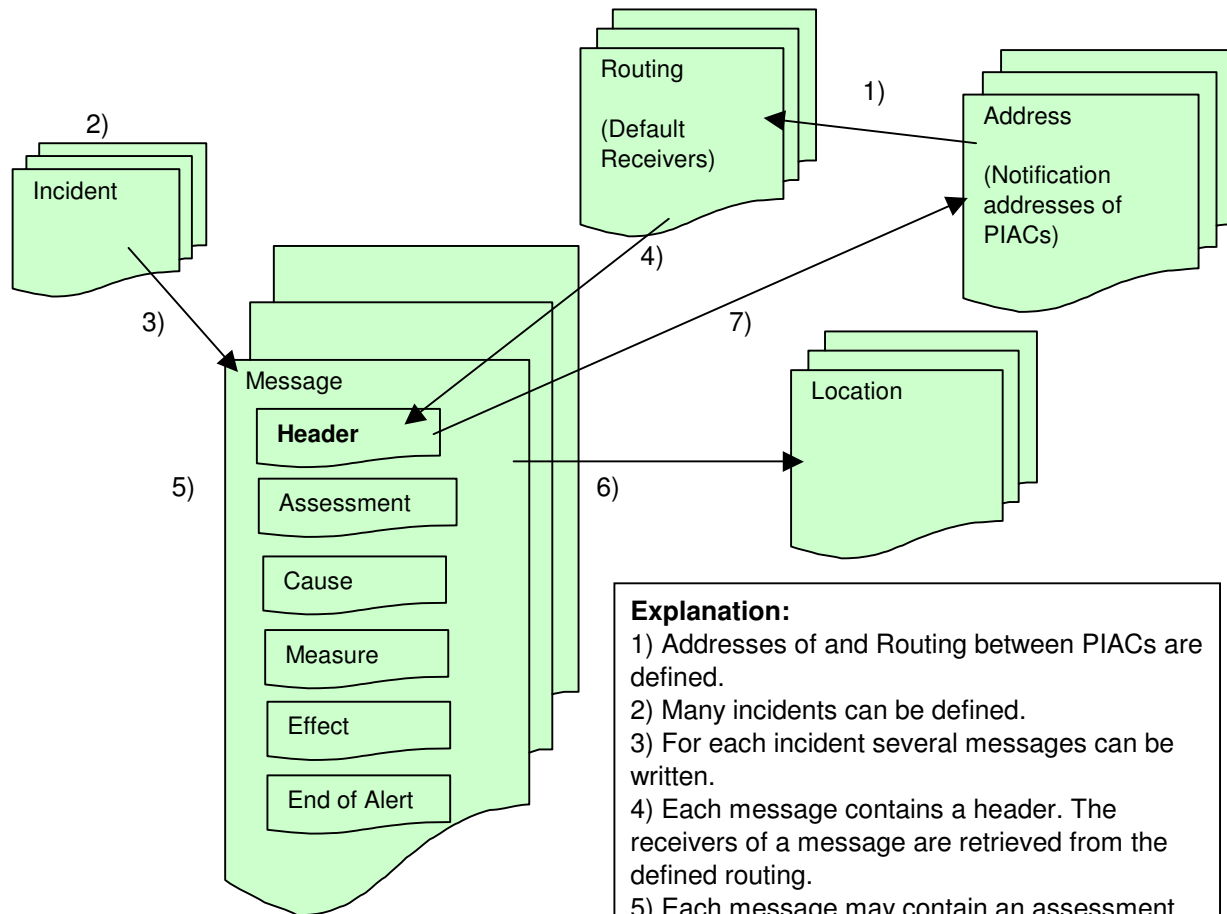
K?

F6?

Group	Field	Default Value	Selection List	Remark	Standard Forms	1. Msg.	Form 1,2	Form 3	Form 4	Form 5	Form 6
Location	Location Category		Waterbody, Station, Town, Site, ...								
	Location Name (Waterbody Name)				D1, P1	6.1	E1		F1		
						D2, P2, R6	6.2a	E3		F3	
	River km (from)				D4, P4, R6	6.2b	E4		F4		
	River km (to)										
Location in Profile			left, middle, right		D3, P4	6.2d	E4		F4		

Routing	From		<PIACs>	Sending PIAC
	To		<PIACs>	Receiving PIAC
	Direction		upstream, downstream	
Addresses	PIAC		<PIACs>	
	Type		EMAIL, EMAIL- SMS, SMS, (FAX)	
	Address			Email address or phone number
	Status	notify	notify, disabled	set to "notify" for notification
	Remarks			e.g. Owner of mobile phone, etc.

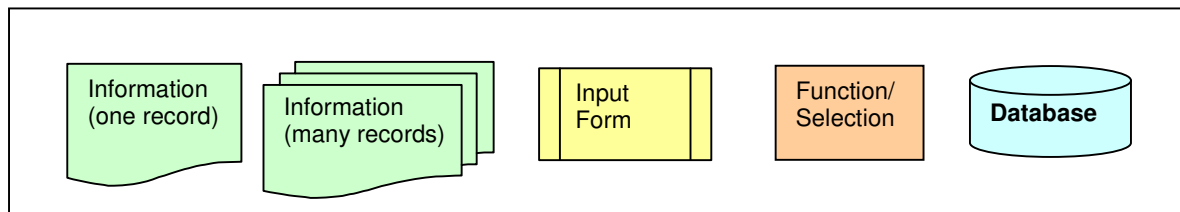
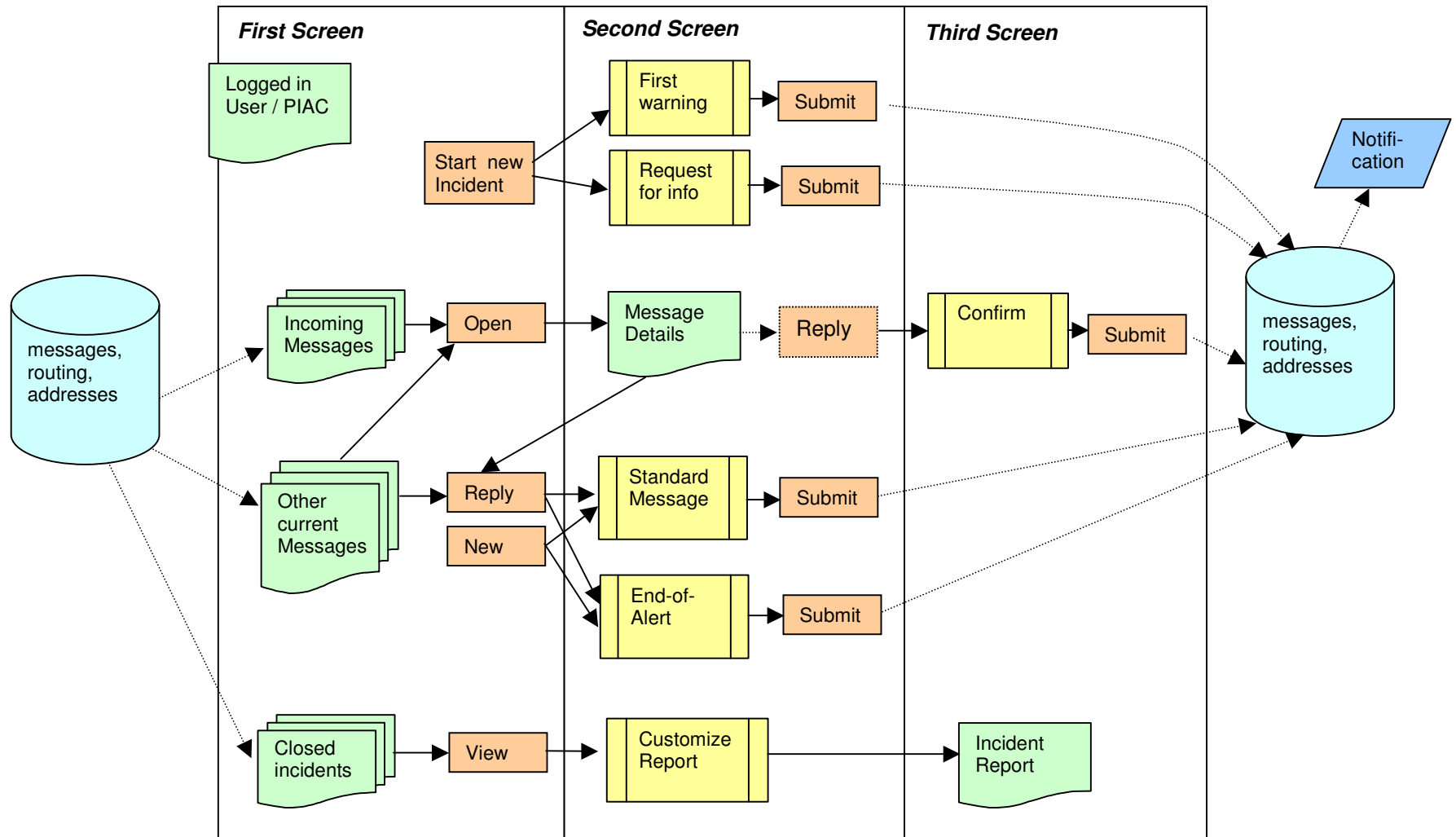
AEWS Data Relations



Explanation:

- 1) Addresses of and Routing between PIACs are defined.
- 2) Many incidents can be defined.
- 3) For each incident several messages can be written.
- 4) Each message contains a header. The receivers of a message are retrieved from the defined routing.
- 5) Each message may contain an assessment, cause, measure, effect and/or end-of-alert.
- 6) A message refers to one (or more) Locations.
- 7) Addresses of PIACs for sending notification are looked up from Address table.

AEWS Application – Function Model



Annex 9: Presentation of AEWS Application

Danube Accident Emergency Warning System



28th APC EG Meeting

Alexander Höbart

AEWS Homepage

The screenshot shows the AEWS homepage with several callouts highlighting key features:

- Current PIAC and User:** A callout points to the user information section at the top left, which displays: Position: PIAC02, User: ALEX_HOEBART, and Language: en [change].
- Setup PIACs, Notifications, Routing and Locations:** A callout points to the 'Setup' section on the left sidebar, which includes links for Alarm Centers, Notification [edit], Routing [edit], and Locations [new].
- Write and read Messages:** A callout points to the 'Messages' section on the left sidebar, which includes links for New message, Inbox, Outbox, and Others.
- Incident Reports:** A callout points to the 'Reporting' section on the left sidebar, which includes a link for Incident Overview.

The main content area features a 'New message' notification and two tables. The first table lists PIAC configurations:

	Status
TEST1.PIAC00.P.3	confirmed
TEST2.PIAC00.P.1	confirmed
HAINBURG3.PIAC04.R.1	confirmed

The second table lists messages:

	Status
03-AUG-03 14:22:00 ICPDR/PS TEST2.PIAC02.S.1	confirmed
03-JUL-03 13:04 ICPDR/PS HAINBURG 2.PIAC02.P.1	confirmed
03-JUL-03 13:04 PIAC04 HAINBURG 2.PIAC02.P.1	confirmed
03-JUL-03 13:04 PIAC04 HAINBURG 3.PIAC02.P.1	Notification to email pintergyorgy@vituki.hu sent. Notification to sms +361-30-2123-381 sent.
03-JUL-03 12:31 PIAC01 HAINBURG 2.PIAC02.P.1	Notification to email gerhard.winkelmann-pei@uba.de sent. Notification to email

Start Warning Message

AEWS Start Message

Position: PIAC02
User: ALEX_HOEBART
Language: en [change]

[Home](#)
[Help](#)

Setup
[Alarm Centers](#)
[Notification \[edit\]](#)
[Routing \[edit\]](#)
[Locations \[new\]](#)

Messages
[New message](#)
[Inbox](#)
[Outbox](#)
[Others](#)

Reporting
[Incident Overview](#)

Related Information
[Discussion Forum](#)

Type: Warning-Pollution
Transboundary River: Danube
Incident: <New incident> Name: VIENNA

Start Message

back

1) Start new Message

2) Selected Type and River will affect default routing

3) Type in the name of the new incident

4) Continue to Message Form

Done Trusted sites

Message

AEWS Message Form

Position: PIAC02
User: ALEX_HOEBART
Language: en [change]

[Home](#)
[Help](#)

Setup
[Alarm Centers](#)
[Notification \[edit\]](#)
[Routing \[edit\]](#)
[Locations \[new\]](#)

Messages
[New message](#)
[Inbox](#)
[Outbox](#)
[Others](#)

Reporting
[Incident Overview](#)

Related Information
[Discussion Forum](#)

Form Data Options: [Show]

Header

Type

Label

Recipients

Location

Location

Category

Waterbody

River-km

Location in Profile

Assessment

http://www.icpdr.org/pls/danubis/DANUBIS_DB.REPO...

Name	Description	Link
ICPDR/PS	Permanent Secretariat of the ICPDR	[add]
PIAC00	Test Center	[add]
PIAC01	Germany	[add]
PIAC02	Austria	[add]
PIAC03	Czech Republic	[add]
PIAC04	Slovak Republic	[add]
PIAC05	Hungary	[add]
PIAC06	Slovenia	[add]
PIAC07	Croatia	[add]
PIAC08	Romania	[add]
PIAC09	Bulgaria	[add]
PIAC10	Moldova	[add]
PIAC11	Ukraine Uzgorod	[add]
PIAC12	Ukraine Izmail	[add]
PIAC13	Serbia and Montenegro	[add]
PIAC14	Bosnia and Herzegovina	[add]

Trusted sites

Add recipients

Done

Trusted sites

Message

AEWS Message Form

Position: PIAC02
User: ALEX_HOEBART
Language: en [change]

[Home](#)
[Help](#)

Setup
[Alarm Centers](#)
[Notification \[edit\]](#)
[Routing \[edit\]](#)
[Locations \[new\]](#)

Messages
[New message](#)
[Inbox](#)
[Outbox](#)
[Others](#)

Reporting
[Incident Overview](#)

Related Information
[Discussion Forum](#)

http://www.icpdr.org/pls/danubis/DANUBIS_DB.REPORT_POPUP_LOCATIONS.show?p_...

Name	Category	Waterbody	River	Fr	Link
Bratislava	Town	Danube			[select]
Braunau	Town	Inn		M	[select]
Brno	Town	Morava	75	75 R	[select]
Hainburg	Town	Danube		R	[select]
Jamena	Station		196	176	[select]
Pozarevac	Town	Morava			[select]
Testsite	Site	Danube	654	L	[select]
Testsite XY	Site	Danube	435	L	[select]
Teststation	Station	Danube	111	M	[select]
Titel-mouth of the river	Station	Tisza	9	0 M	[select]
Wien	Town				[select]


Done Trusted sites

Select location

Form
He
Typ
Lal
Re

Message Notification Suppl. info follows

Location

Location: 

Category:

Waterbody:

River-km: to

Location in Profile:

Assessment

Done Trusted sites

... or open Location pick list

Message Form (cont.)

Related Information
Discussion Forum

Administration
Alarm Centers
Translations: edit

Location in Profile

Assessment

Type

Substance Category
 Mineral Oil
 Chemical substance
 Others

Substance Name

Quantity

Flow m³/s

Waterbodies likely to be further affected

Assessment Date (DD-MM-YYYY HH:MI)

Remarks

Text

Done Trusted sites

Fill in short form

Submit Message

Outgoing Message

The screenshot displays the AEWIS Home interface. On the left is a navigation sidebar with sections: Home Help, Setup (Alarm Centers, Notification [edit], Routing [edit], Locations [new]), Messages (New message, Inbox, Outbox, Others), Reporting (Incident Overview), and Related Information (Discussion Forum). The main content area shows a 'New message' notification at the top, followed by 'Incoming Messages' and 'Outgoing Messages' tables. A yellow callout bubble points to the first row of the 'Outgoing Messages' table, containing the text: 'New outgoing message shows email and sms notifications sent'. The browser's taskbar at the bottom shows a 'Trusted sites' icon.

AEWIS Home

Position: PIAC02
User: ALEX_HOEBART
Language: en [change]

Home Help

Setup
Alarm Centers
Notification [edit]
Routing [edit]
Locations [new]

Messages
New message
Inbox
Outbox
Others

Reporting
Incident Overview

Related Information
Discussion Forum

New message: [Warning-Pollution] [Request-for-Information] [Standard Message] [Test-of-Alert]

Incoming Messages

Date	From	Label	Status
01-SEP-03 17:58	PIAC00	TEST.PIAC00.P.3	confirmed
01-SEP-03 13:57	PIAC00	TEST.PIAC00.P.1	confirmed
03-JUL-03 13:30	PIAC04	HAIBURG3.PIAC04.R.1	confirmed

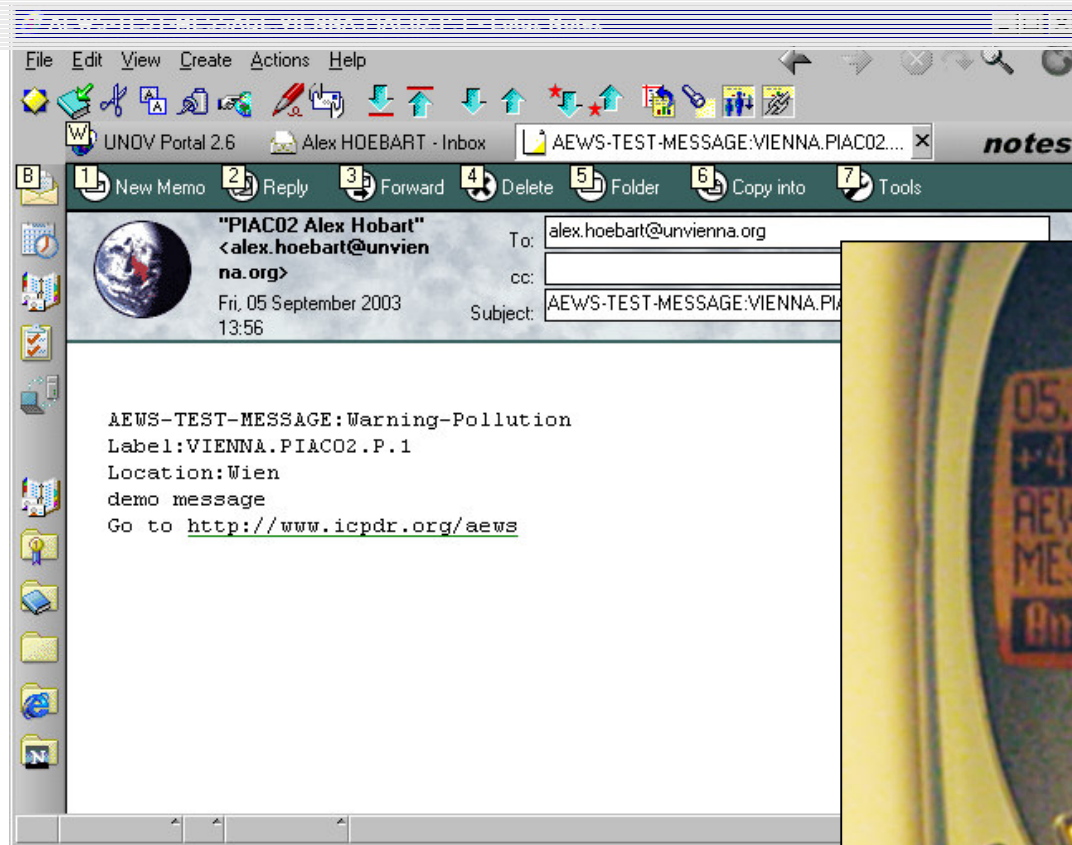
Outgoing Messages

Date	To	Label	Status
05-SEP-03 11:54	PIAC00	VIENNA.PIAC02.P.1	Notification to email alex.hoebart@unvienna.org sent. Notification to sms +35998494778 sent. Notification to sms +43 6991 9452514 sent.
13-AUG-03 14:42	PIAC03	TEST2.PIAC02.S.1	confirmed
03-JUL-03 13:04	ICPDR/PS	HAINBURG 2.PIAC02.P.1	confirmed
03-JUL-03 13:04	PIAC04	HAINBURG 2.PIAC02.P.1	confirmed
03-JUL-03 13:04	PIAC05	HAINBURG 2.PIAC02.P.1	Notification to email pintergyorgy@wituki.hu sent. Notification to sms +361-30-2123-381 sent

New outgoing message shows email and sms notifications sent

Trusted sites

Email and SMS Notification



Incoming Message

AEWS Home

Position: PIAC00
User: PIAC_TESTER
Language: en [change]

[Home](#)
[Help](#)

Setup
[Alarm Centers](#)
[Notification \[edit\]](#)
[Routing \[edit\]](#)
[Locations \[new\]](#)

Messages
[New message](#)
[Inbox](#)
[Outbox](#)
[Others](#)

Reporting
[Incident Overview](#)

New message: [\[Warning-Pollution\]](#) [\[Request-for-Information\]](#) [\[Standard Message\]](#)

Incoming Messages

Date	From	Label	Status
05-SEP-03 11:54	PIAC02	VIENNA.PIAC02.R.1	Please read and confirm!
04-SEP-03 12:09	ICPDR/PS	TEST11	confirmed
04-SEP-03 11:50	ICPDR/PS	BRATISLAVA.ICPDR/PS	confirmed
01-SEP-03 13:59	PIAC00	TEST.PIAC00.P.1	confirmed
21-AUG-03 09:06	PIAC03	BRNO TEST.PIAC03.P.1	confirmed
07-JUL-03 14:30	ICPDR/PS	TITEL.ICPDR/PS.S.2	confirmed
07-JUL-03 10:47	ICPDR/PS	TITEL.ICPDR/PS.S.1	confirmed
04-JUL-03 14:38	PIAC13	JAMENA.PIAC13.R.1	confirmed
03-JUL-03 12:21	PIAC02	BRAUNAU.PIAC02.R.1	confirmed

Outgoing Messages

Done Trusted sites

Read Message

http://www.epd.org/pw/danubio/DANUBIS_UL/LTR_MSG...

Google Search Web

AEWS Message

Header	
Label	VIENNA.PIAC02.P.1
Date	05-SEP-2003 11:54
Type	Warning-Pollution
Sender	PIAC02
User	HÖBART Alex
Recipients	PIAC00
Test	Yes
Notifications	Yes
Suppl. Info follows	No

Location	
Category	Town
Location Name	Wien
Waterbody	
River-km	to
Location In Profile	

Location Name	Wien
Waterbody	
River-km	to
Location In Profile	

Assessment	
Type	Emission
Substance Category	Mineral Oil
Substance Name	
Quantity	1234 l
Assessment Date	05-SEP-2003 11:48
Flow	987
Waterbodies affected	

Text	
demo message	

[Confirm receipt of message]

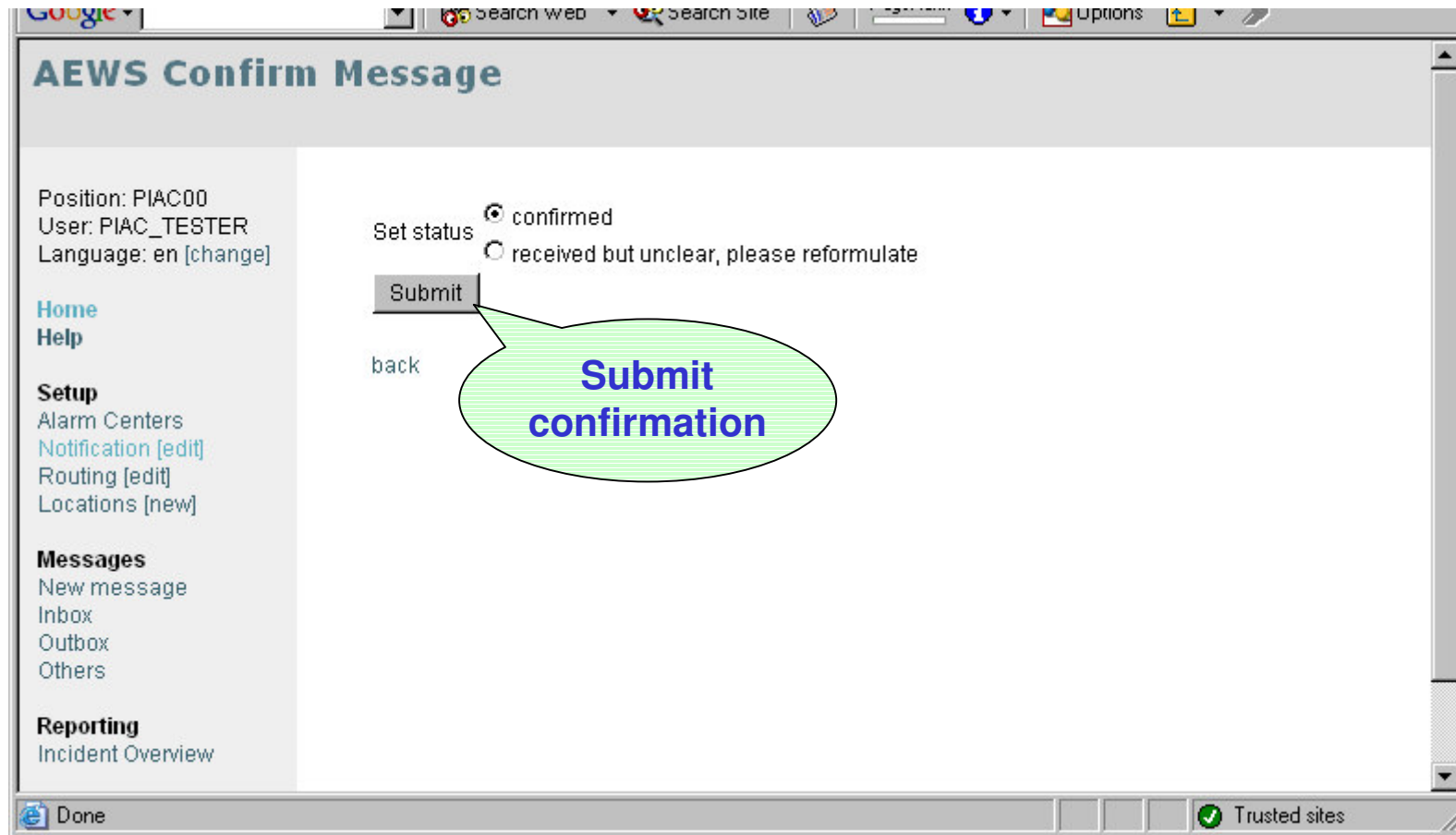
back

Done

Confirm receipt
of message



Confirm Receipt of Message



Confirmed Message

AEWS Home

Position: PIAC00
User: PIAC_TESTER
Language: en [change]

Home
Help

Setup
Alarm Centers
Notification [edit]
Routing [edit]
Locations [new]

Messages
New message
Inbox
Outbox
Others

Reporting
Incident Overview

New message: [Warning-Pollution] [Request-for-Information] [Standard Message]

Incoming Messages

Date	From	Label	Status
05-SEP-03 11:54	PIAC02	VIENNA.PIAC02.P.1	confirmed
04-SEP-03 12:09	ICPDR/PS	TEST11	confirmed
04-SEP-03 11:50	ICPDR/PS	BRATISLAVA.ICPDR/PS.P.1	confirmed
01-SEP-03 13:59	PIAC00	TEST.PIAC00.P.2	confirmed
21-AUG-03 09:06	PIAC03	BRNO TEST.PIAC03.P.1	confirmed
07-JUL-03 14:30	ICPDR/PS	TITEL.ICPDR/PS.P.2	confirmed
07-JUL-03 10:47	ICPDR/PS	TITEL.ICPDR/PS.P.1	confirmed
04-JUL-03 14:38	PIAC13	JAMENA.PIAC13.P.1	confirmed
03-JUL-03 12:21	PIAC02	BRAUNAU.PIAC02.P.1	confirmed

Outgoing Messages

View of confirmed message

Further options:
•read,
•reply to sender or
•reply to all

Done Trusted sites

Additional fields in Standard Message

The screenshot displays a web application interface. At the top, a blue title bar reads "Edit Data - Microsoft Internet Explorer provided by UNOV-ITS". Below this is a table with the following data:

#	River Name ^	River-km	Measuring-Station	Water-Level	Flow	Observation Date
1	Danube	111	Station 3	234	456	11.11.2003
2						

Below the table is a form with several sections:

- Causes**: Cause of pollution (Rupture of pipe)
- Measures**: Counter measures taken (Efforts to seal leakage)
- Effects**: Effects observed in River (Dead fish)
- Remarks**: (Empty text area)

A green callout bubble points to the "Cause of pollution" field with the text: "Click to edit data for Danube Basin Alarm Model".

At the bottom of the interface, there is a "Trusted sites" indicator with a green checkmark.

Incident Overview

AEWS Incidents

Position: PIAC00
User: ALEX_HOEBART
Language: en [\[change\]](#)

Home Help

Setup

[Alarm Centers](#)
[Notification \[edit\]](#)
[Routing \[edit\]](#)
[Locations \[new\]](#)

Messages

[New message](#)
[Inbox](#)
[Outbox](#)
[Others](#)

Reporting

[Incident Overview](#)

Related Information

[Discussion Forum](#)

Click on the incident name for an overview of its messages.

Incident Name	First Message	Last Message	#Messages	Countries	Waterbodies	Pollutants	Status
WOERGL	03-JUL-03 12:21	03-JUL-03 12:21	1	AT, DE	Inn	Chemical substance	open
HAINBURG 2	03-JUL-03 13:04	03-JUL-03 13:04	1	AT, HU, SK	Danube	Mineral Oil	open
DEVIN	03-JUL-03 13:30	03-JUL-03 13:30	1	AT, HU, SK	Danube	Mineral Oil	open
HAINBURG	03-JUL-03 15:31	03-JUL-03 15:52	2		Inn	Mineral Oil	open
BRATISLAVA	03-JUL-03 16:41	04-SEP-03 11:50	4	HU, SK	Danube	Chemical substance, Others	open
TITEL	04-JUL-03 14:18	07-JUL-03 16:54	5	CS	Danube, Tisza	Chemical substance, Mineral Oil	open
JAMENA	04-JUL-03 14:38	04-JUL-03 14:38	1	CS		Mineral Oil	open
TEST1	07-JUL-03 21:49	14-JUL-03 14:50	2		Danube	Mineral Oil	closed
MARIBOR	08-JUL-03 14:46	02-SEP-03 16:42	2	BG, HR, HU, RO, SI	Danube	Mineral Oil	open
TEST2	14-JUL-03 13:05	13-AUG-03 14:42	13	AT, CZ, HR, HU, MD, RO, SK	Danube, Morava	Mineral Oil, Others	open



Trusted sites

Incident Messages

AEWS Incident Messages

Position: PIAC00
User: ALEX_HOEBART
Language: en [\[change\]](#)

Home Help

Setup

[Alarm Centers](#)
[Notification \[edit\]](#)
[Routing \[edit\]](#)
[Locations \[new\]](#)

Messages

[New message](#)
[Inbox](#)
[Outbox](#)
[Others](#)

Reporting

[Incident Overview](#)

Related Information

[Discussion Forum](#)

TITEL

[Compact View](#) | [Detailed View](#)

Route	Type	Label	Date	Location
PIAC13→ICPDR/PS	Warning-Pollution	TITEL.PIAC13.P.1	04-JUL-03 14:18	Titel-mouth of the river
ICPDR/PS→PIAC00	Standard Message	TITEL.ICPDR/PS.S.1	07-JUL-03 10:47	
ICPDR/PS→PIAC00	Standard Message	TITEL.ICPDR/PS.S.2	07-JUL-03 14:30	
PIAC00→PIAC00	Standard Message	TITEL.PIAC00.S.1	07-JUL-03 16:38	
PIAC00→ICPDR/PS,PIAC00	Request-for-Information	TITEL.PIAC00.R.2	07-JUL-03 16:54	Bratislava

Total Row Count in Report- 5
Row(s) 1 - 5

[Customize Report](#)

[back](#)

Done

Trusted sites

Translations: e.g. German

AEWS Start

Position: PIAC02
Benutzer:
ALEX_HOEBART
Sprache: de [wechseln]

Start Hilfe

Einstellungen
Alarmzentren
Notifikation [ändern]
Routen [ändern]
Ortsangaben [neu]

Nachrichten
Neue Nachricht
Eingang
Ausgang
Andere

Berichte
Ereignisübersicht

Weitere Informationen

Neue Nachricht: [Warnung-Verschmutzung] [Auskunftersuchen] [Standard-Nachricht] [Alarm-Ende]

Nachrichten-Eingang

Datum	Von	Kennung	Status
01-SEP-03 17:58	PIAC00	TEST.PIAC00.P.3	bestätigt
01-SEP-03 13:57	PIAC00	TEST.PIAC00.P.1	bestätigt
03-JUL-03 13:30	PIAC04	HAIBURG3.PIAC04.R.1	bestätigt

Nachrichten-Ausgang

Datum	An	Kennung	Status
05-SEP-03 11:54	PIAC00	VIENNA.PIAC02.P.1	bestätigt
13-AUG-03 14:42	PIAC03	TEST2.PIAC02.S.1	bestätigt
03-JUL-03 13:04	ICPDR/PS	HAINBURG 2.PIAC02.P.1	bestätigt
03-JUL-03 13:04	PIAC04	HAINBURG 2.PIAC02.P.1	bestätigt
03-JUL-03 13:04	PIAC05	HAINBURG 2.PIAC02.P.1	Notifikation an die Email pintergyorgy@vituki.hu geschickt. Notifikation an die SMS +361-30-2123-381 geschickt.

Done Trusted sites