

b.i.

# Bulletin Informatique

JUILLET 1998

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C.E. / Direction Informatique / Unité Relations Utilisateurs et Cohérence Informatique

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**Le logo Direction Informatique existe. Il sera en quelque sorte la nouvelle "signature" sur les documents qui émanent de la DI à destination de nos collègues des autres services.**



**Byte**  
**Kilobyte**  
**Megabyte**  
**Gigabyte**  
**Terabyte**  
**Petabyte**

What is one quadrillion bytes, or 1,000 terabytes?

A **petabyte** is the equivalent of:

- 250 billion pages of text;
- 20 million four-drawer filing cabinets;
- 500 million high-density floppy disks
- 83,000 digitally stored, feature-length movies or
- 1.7 million CD-ROMs of information.

## The new framework contract for informatics is out!

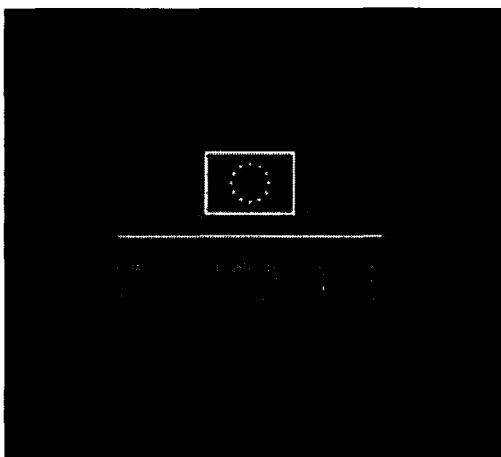
The long process of renewing of the standard framework contract for informatics contracts is now completed. The new contract, that can be found at <http://www.cc.cec/di/slfc/contract/index.htm#contract>, has been approved by the Legal Service. Workshops on its use will be organised for the IRMs, responsibles for the financial units (RUFs) and suppliers in the coming months. Stay tuned for more information.

L. ALLGAYER  
DI / SLF

## 1,7 milliard de connexions au site de la coupe du monde

Le site officiel de la Coupe du Monde à enregistré 1,7 milliard de connexions. Le record était précédemment tenu par le site officiel des Jeux Olympiques de Nagano avec 640 millions de connexions.





Le serveur EUROPA a obtenu ce 28 mai le "Grand Prix" pour le meilleur site internet présenté au "28<sup>ème</sup> Festival de la communication audiovisuelle et multimédia de Biarritz". La Direction Informatique, la DG X et l'Office des Publications ont été félicités.

*Ce prix souligne l'importance de présenter une image cohérente et collégiale du travail de la Commission, ainsi que des autres institutions.*

(M. TROJAN)

## Projet "Cyber-Info"

L'objectif du projet "Cyber-Info", développé par la Direction informatique en collaboration avec la DG IX et la DG X, est d'assurer une meilleure diffusion de l'information "corporate" par l'utilisation des technologies informatiques avancées. Le projet "Cyber-Info" s'inscrit dans le cadre de la mesure 23 de MAP 2000. Cette mesure vise à une meilleure utilisation par le personnel de la Commission des techniques de diffusion de l'information et d'Europaplus en particulier.

Dans le cadre de ce projet, et à titre expérimental, des bornes d'information sont installées dans cinq cafétérias de la Commission (à Bruxelles dans les bâtiments Breydel, JECL, Ronde, Guimard et à Luxembourg au bâtiment Jean Monnet).



One url to save in your bookmarks:

<http://www.cc.cec/ext-db/index.htm>

These pages provide an outline presentation of external origin databases used by the Commission. The logo represents a Chinese & Japanese ideogram meaning "source, origin". It covers any paying external information needed by Commission officials for their daily work and negotiated either by DG-X-B or by any other DG.

**ERRATUM****Question écrite E-2384/97 posée par Nikitas Kaklamanis (UPE) à la Commission**

Objet: Vol de données contenues dans le réseau informatique de la Commission européenne

Selon la presse belge, aucune suite n'a été donnée à l'affaire du vol de données contenues dans le réseau informatique de la Commission, vol survenu au moment même où se déroulaient les négociations sur la signature de l'accord du GATT.

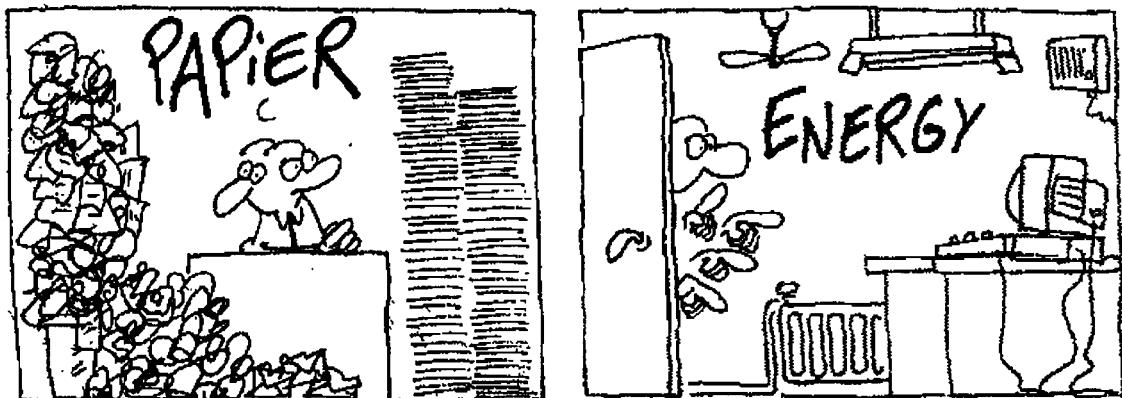
Ces données énonçaient les positions officielles de l'Union sur toute une série de questions relevant du GATT et, curieusement, elles se sont retrouvées en la possession de la délégation des Etats-Unis à ces négociations.

Le vol de données aussi précieuses a-t-il bien eu lieu? Les coupables ont-ils été retrouvés? Quelles sanctions ont-elles été - ou seront-elles - prises à la suite d'un acte qui a sérieusement miné le potentiel de négociation communautaire?

*Réponse donnée par M. Santer au nom de la Commission*

La Commission prie l'Honorable Parlementaire de se reporter à la réponse qu'elle a donnée à la question écrite E-2471/96 posée par M<sup>me</sup> Maij-Weggen (jo C11 du 13.01.97), dans laquelle elle déclare qu'à l'exception d'articles de presse, elle ne dispose d'aucun élément probant sur l'une ou l'autre de ces allégations.

# Conseils verts - Green Tips



## photocopies

- utilisez le mode recto-verso : ORIG ▶ COPY / 1 ▶ 2 / Nombre de copies / ENTER/ EXIT
- faites autant de copies que nécessaire et non plus
- réutilisez des feuilles imprimées en recto dans le "bypass" pour faire des copies essais
- enclencher le mode "veille" après l'utilisation pour diminuer la consommation d'énergie

- use the recto-verso mode : ORIG ▶ COPY / 1 ▶ 2 / Number of copies / ENTER/ EXIT
- make only as many copies as you actually need
- use "one-sided" paper in the bypass for test print-outs
- put on the sleeping mode after use to diminish the energy-consumption

## et encore - and more

★ réemployez les enveloppes pour le courrier interne

★ n'imprimez pas tout, mais lisez vos messages directement à l'écran,

★ utilisez le courrier électronique là, où c'est possible,

★ archivez électroniquement

★ mettez le papier à jeter dans les sacs ou bacs jaunes de recyclage

★ éteignez votre PC et imprimante personnelle le soir et en cas d'absence plus longue (éteindre uniquement l'écran du PC diminue déjà considérablement l'énergie consommée)

★ éteignez les lumières le soirs et à midi (au-delà d'une ½ heure cela vaut la peine)

**BREF : soyez attentifs à votre environnement !!!**

★ re-use envelopes for internal mail

★ don't print everything: rather read messages directly from the screen

★ use e-mail whenever you can

★ file electronically

★ put used paper in the yellow recycling bags or trays

★ turn off PC's and printers at night and during longer absences (turning off only the screen saves already a considerable amount of energy)

★ use daylight - it's free ! Only turn on lights when you need to (after half an hour it is worth doing it)

**IN SHORT : be attentive to your environment !!!**

# STB

## PRODUITS ORACLE INFO

### Comptage utilisateurs Oracle

Encore une fois nous allons fournir des informations concernant le contrat cadre entre les Institutions Européennes et Oracle Belgium.

Rappelons que ce contrat couvre l'utilisation des produits et des services Oracle par les différentes institutions pour la période 1996-1999. Il prévoit un paiement fixe pour l'utilisation forfaitaire d'un certain nombre de produits Oracle pendant 3 ans et le paiement dans la quatrième année sur base de l'utilisation réelle. Cette utilisation est mesurée en fonction du nombre d'utilisateurs concurrents utilisés avec un minimum défini sur base des plates-formes dans lesquelles Oracle est installé.

Par conséquent, contractuellement, nous devons procéder au comptage des utilisateurs Oracle et ce comptage, à faire en parallèle entre toutes les institutions, se déroulera entre le 15 septembre et le 15 octobre.

Pour ce faire, DI-STB en collaboration avec les autres Institutions Européennes (dans le cadre du groupe interinstitutionnel DBMS), a mis en place une procédure de comptage conforme aux règles définies dans le contrat et qui a été validé par Oracle.

Les DG souhaitant valider la procédure dans leur environnement et, en même temps, connaître leur niveau d'utilisation d'Oracle, sont priées de contacter:

M. RUIZ DE LA TORRE (DI-STB, tél: 32141).

### Migration vers Oracle 8.0

Dans le cadre de l'évaluation de la nouvelle version Oracle8 sur un serveur NT, nous avons procédé à des tests de migration Oracle version 7.3.x vers Oracle version 8.0.4 en prenant

comme base de données à migrer une base de données Oracle SIC.

Oracle version 8.0.4 permet d'envisager deux possibilités de migration:

- Exporter toutes les données Oracle7 (full export), puis les importer dans une base Oracle 8.
- Utiliser les outils de migration fournis en standard avec Oracle 8 Enterprise

Les deux solutions ont été testées, la meilleure solution est à définir en fonction de la volumétrie de la base de donnée à migrer. On utilisera de préférence l'outil de migration pour une grosse base de données. La solution Export/Import quant à elle est préférable si l'on veut réorganiser la base de données.

Lors de nos tests la migration d'une base de données de 50M a pris environ 25 mn avec Export/Import et 15 à 20 mn avec l'outil de migration.

A signaler qu'après la phase de migration certains objets de la base sont invalides et il faut les recompiler.

Les tests effectués avec l'application cliente SIC accédant à la nouvelle base version 8.0.4 montrent également que les produits réseaux d'Oracle8 (NET8 SERVEUR, ..) sont compatibles avec les produits clients Oracle7 (SQL\*Net 2.3) sans modifier leurs configurations.

En conclusion ces différents tests ont donné satisfaction et la migration Oracle 7 vers Oracle 8 ne semble pas poser de problèmes majeurs.

Pour plus d'informations contacter:  
M. JOURDAIN (DI-STB, tél: 35105) ou  
M. JOULAIN (DI-STB, tél: 33783).

## NewsGroup ORACLE

Un NewsGroup Oracle interne installé au CC est disponible. Ce NewsGroup devrait permettre l'échange d'informations entre les utilisateurs (DBA, développeurs, ...) ORACLE de la Commission. N'oubliez pas de le consulter de temps en temps, quelquefois quelques bonnes surprises vous y attendent.

NewsGroup CEC.DI.ORACLE sur le serveur WWW.CC.CEC

Les étapes pour se connecter au NewsGroup sont les suivantes:

- Lancer le browser Netscape
- Dans Options/Mail and News Preferences
- ajouter WWW.CC.CEC dans News (NNTP) Server
- choisir Windows/Netscape News
- Cliquer touche droite sur l'icone directory choisir Show all News Groups
- cliquer sur options>Show New Newsgroups
- double cliquer sur cec. puis cec.di. puis cec.di.oracle

Pour avoir plus d'informations contacter :

M. JOULAIN (DI-STB, tél: 33783) ou  
M. RUIZ DE LA TORRE (DI-STB, tél: 32141).

## PRODUITS POWERSOFT INFO

### Disponibilité Powerbuilder 5.0.04

La version PB 5.0.04 est la dernière version 5 fournie par Sybase. Les « fix » permettant d'upgrader sont en cours de distribution.

Etant donné qu'il s'agit d'une version assez stable et qui corrige un certain nombre d'anomalies des versions précédentes, DI-STB recommande d'utiliser cette version pour toutes les applications qui utilisent PB5.

Pour les déploiement des applications, un script 32 bits PB50432A est disponible sur Softline et sera intégré dans un prochain Service Pack de la plate-forme de référence NTP

## Evaluation PowerBuilder 6.0 Unicode

An evaluation of PowerBuilder 6.0 Unicode Beta version has been carried out at DI-STB. This product, running only in Windows NT platforms, includes full Unicode support at all levels, permitting developers to build fully multilingual applications, which integrate with the Windows NT multilingual capability. An Unicode-enabled database must be used (like Oracle UTF-8); the only database drivers supplied are for Oracle 7.3. The version we have tested is a beta product, and as such it is difficult to install, lacks many add-ons from the ANSI version and some of the multilingual functionality does not work properly but the general impression is very promising. The Unicode version can import standard ANSI applications, but exporting from Unicode to ANSI does not work properly. Developments that need extensive multilingual support should consider PowerBuilder 6.0 Unicode as a candidate tool when the final version is released.

The detailed report ("Evaluation PowerBuilder 6.0 Unicode", ref.: DI-STB/OD (98) 02), will be available in Sofline.

For additional information please contact:  
P.A. DAMAS (DI-STB, tél: 33497) or  
D. EGUIDAZU (DI-STB, tél: 35305).

## DIVERS

### Deployment 32 bits Client/server application

A new version of this document is now available at DI-STB. This document describes the guidelines for deploying 32-bit applications on the NTP platform. It covers developments carried out in PowerBuilder, VisualBasic, Oracle Developer 2000 and Microsoft Access. It incorporates new references to the new Microsoft deployment strategy for VisualBasic 5, references to the Microsoft Logo programme and a clearer distinction between the four elements that make up the application components: application objects, application data, user objects and user data.

We recommended to use this documents for deployment of your C/S applications and if you want to develop a "silent" script you can contact the service of script development available at DI-STB (Mrs. D'Ascanio)

The document ("Deployment of 32-bit client/server applications", ref.: DI-STB/OD (98) 09) will be available from Softline and for additional information, please contact:  
P.A. DAMAS (DI-STB, tél: 33497) or  
D. EGUIDAZU (DI-STB, tél: 35305).

produits permettent de répondre aux besoins de la Commission.

Sur base de ces expériences, les participants au projet retiendront le ou les produits qui correspondent le plus à nos besoins, et le proposeront pour la liste de produits.

Pour obtenir les documents ou tout renseignement concernant ce projet, contactez:  
J. MARIN (DI-STB, tél: 34531) ou  
P.A. DAMAS (DI-STB, tél: 33497).

## Projet Redis

Nous avions introduit le projet REDIS (Reference Environment for Development and deployment of Internet Information Systems) dans le BI précédent. Pour rappel, ce projet a comme objectif de fournir l'architecture, les choix technologiques, les outils et les recommandations pour l'implémentation de systèmes d'informations sur la plate-forme Internet.

Le 9 juin s'est tenu à Bruxelles un Product Meeting de la famille Infrastructure des Systèmes d'Informations qui avait pour objet le lancement du projet REDIS.

Le cadre technique (voir article dans ce bulletin) pour le développement d'applications Internet et Client/Serveur à plusieurs niveaux a été présenté, de même que les fonctions que nous attendons d'un outil de développement.

Les offres de plusieurs fournisseurs ont été rapidement exposées à titre d'exemple d'architectures.

Pour sélectionner les outils de développement qui seront proposés pour la liste des produits recommandés, nous avons lancé un Market Survey, qui permettra à chaque fournisseur de présenter son offre suivant des critères communs. Sur base de ces réponses, avec le groupe restreint de participants, nous allons établir une liste réduite de produits à analyser plus en détail.

Des projets pilotes, suivis de près, seront démarrés de façon à voir dans des cas réels les

## OFFICE AUTOMATION INFO

### Eurolook dans l'échange et la conversion de documents

Un document Eurolook n'est pas uniquement caractérisé par la présence du drapeau européen sur l'entête ou de l'adresse officielle sur le bas de page. Un document Eurolook est surtout créé et articulé autour d'une structure composée de styles prédéfinis et faciles à utiliser.

Dans le cadre de la conversion de documents entre Word 6/7 et Word 97, le gros avantage d'utiliser Eurolook réside dans le fait que tout document créé avec Eurolook sera converti correctement.

Le convertisseur Microsoft Word97/Word6/7 ne convertit pas correctement toutes les fonctionnalités de Word (p.ex. la numérotation des paragraphes numérotés est convertie en texte fixe et perd donc son automatisme). Un outil complémentaire - Reformatting Tool - a été intégré dans Eurolook 3.7 pour permettre une garantie optimale de révision des documents. Cet outil fonctionne parfaitement pour les documents Eurolook standard. Tout document Eurolook est reconnu dès son ouverture tant dans en Word97 qu'en Word6/7 et automatiquement reformatted pour permettre et faciliter son édition.

Lors de ce reformatage, les styles natifs d'Eurolook sont réappliqués. Ainsi, tout changement préalable lors de la création,

effectué pour le formatage paragraphe et pour la définition des styles Eurolook est invalidé pour être remplacé par les standards d'Eurolook. Pour cette raison et aussi dans un souci d'harmonisation et de facilité pour tous, nous avons toujours recommandé vivement d'utiliser Eurolook sans procéder à aucune modification de styles, de formatage ou de numérotation.

Cependant, pour le SdT qui reçoit de nombreux documents non-Eurolook mais qui travaille toujours avec Eurolook, cette situation provoquait quelques problèmes, car pour pouvoir créer des traductions similaires en apparence aux documents originaux, il lui faut modifier les standards d'Eurolook tels que les styles, le formatage paragraphe et le schéma de numérotation. Toutes ces modifications étaient perdues par les actions du Reformatting Tool.

En concertation avec le SdT et, en même temps pour améliorer encore la qualité de conversion des documents Eurolook, quelques changements ont été apportés aux routines du Reformatting Tool. Ces modifications et l'information s'y référant sont d'ores et déjà intégrées dans le nouveau NTPSetup Service Pack 2 et seront aussi très prochainement disponibles sur Softline comme scripts indépendants sous la rubrique Eurolook 3.7 de la page "NTP Office Automation - Bureautique NTP"

[www.cc.cec/softline/ntp/offtools/offtools.htm](http://www.cc.cec/softline/ntp/offtools/offtools.htm)

Pour plus d'information contacter:

Mme J. Castronovo (DI-STB tél. : 34910) ou l'équipe de support Bureautique à Bruxelles.

## NTPRef 3.5 Service Pack 2

In the context of the reference configuration NTP a new service pack is now available for download. It incorporates all the modifications included in the Service Pack 1 and new modifications to the products listed below if they are present on the PC. It is in the form of a single installation script and can be run on any PC originally generated using NTPRef 3.5, on Windows NT and Windows 95.

Some of the changes listed have previously been made available separately on Softline. The Service Pack will install correctly even if they have already been applied.

**WARNING:** This script only runs on PCs configured with NTP 3.5 and needs a reboot after installation.

As always, please make sure that you test the script adequately on your standard configuration before deployment to end-users.

### Affected products:

- NT keyboards (ShiftLock and NumLock problems)
- Office 97 and Proofing Tools
- Eurolook
- Fax drivers
- Euroforms
- EuroSymbol

### More information:

[www.cc.cec/softline/ntp/ntpsp2/ntpsp2.htm](http://www.cc.cec/softline/ntp/ntpsp2/ntpsp2.htm)

**Important Note:** Several DGs have asked if they need to apply Windows NT Service Pack 3 after the installation of this script. The answer is NO. NT Service Pack fixes at once several problems of the Operating System. NTPSetup Service Pack 2 fixes at once some problems of the "Office Automation products" but not the operating system. This script only modifies two Registry keys in order to fix two keyboard problems (for NT only), but does not install any new drivers.

For additional information, please, contact:  
Mr José Luis Barrios (DI-STB - tél.: 33557).

## Known Problems and FAQ

Il existe, depuis quelques semaines, une nouvelle rubrique sur Softline consacrée aux problèmes plus fréquemment rapportés au Help-Desk Central. Vous pouvez y accéder à partir de la page principale "NTP Office Automation [www.cc.cec/softline/ntp/offtools/offtools.htm](http://www.cc.cec/softline/ntp/offtools/offtools.htm)).

Il suffit ensuite de choisir la rubrique "Known Problems".

For additional information, please, contact:  
Mr José Luis Barrios (DI-STB - tél.: 33557).  
**New script packages**

The DI installation scripts delivered with the NTP 3.5 CD-ROM have to be used **only** for from-scratch installation and not for upgrading an existing (used) PC. This is due to the fact that they have no capabilities for recovering of previous versions. In many cases we have developed new scripts repairing bugs or installing a new product version.

Examples are: Eurolook version 3.7, Proofing Tools for Office 97, QuickView Plus, mf\_Windows, Euroforms, SICs, Route400 5.2.2.5, Winguard 7.81 (the latest), Access RT, and many others.

Then, in case you need to upgrade an existing and working PC, please consult Softline or contact the support people for the product to be informed about the latest DI installation script available.

For additional information, please, contact:  
Mrs Cinzia D'Ascanio (DI-STB, tel: 34857)

## Euro

Le symbole Euro est né en tant que logo mais il est devenu un vrai caractère. En conséquence pour pouvoir le manipuler comme n'importe quel autre caractère il faut l'inclure dans le jeu de caractères de la plate-forme utilisé, l'introduire via le clavier (en attendant une touche spécifique, AltGrE est utilisée sauf exceptions), il faut disposer de fonts pour le visualiser et l'imprimer et il doit être supporté par le système d'exploitation et les logiciels utilisés. A l'heure actuelle dans la configuration de référence NTP 3.5 Service Pack 2 pour NT/WS tous les éléments pour le support de l'Euro sont disponibles mais il peut y avoir quelques petits problèmes d'impression. Le support Euro pour NTP/Win 95 n'est complet et il est utilisable seulement dans Word 97.

A signaler que Microsoft prévoit le support natif de l'euro dans NT4 SP4 (pour septembre 98), NT5 et Windows 98.

Un article sur le sujet sera publié prochainement dans le BI, en attendant vous pouvez consulter les documents "Current state of Euro sign implementation" et "Recommendation for the placement of Euro sign implementation on computer keyboards and similar information processing equipment" disponibles dans Softline (page Office Automation).

Pour plus d'information contacter :  
J. Marin (DI-STB – tél. : 34531) ou  
A. Huembert à (DI-STB – tél. : 35414).

## Calendar et l'année 2000

Le produit CALANDAR a été choisi dans le cadre des procédures de product management pour couvrir les fonctionnalités d'agenda de groupe. Il était à l'époque le seul produit qui pouvait tourner convenablement sur l'environnement Win 3.1 avec PC-NFS et avec la possibilité de fonctionner en mode multi-serveurs (WAN) et indépendant du courrier électronique.

Lors du passage du dossier en CTI en mai 1995, il avait été dit que le produit constituait un "stopgap" pour deux ans en attendant l'évolution de l'infrastructure de la Commission vers la NTP ainsi que celle du marché des agendas électroniques.

La DI a fait pendant les deux dernières années un effort considérable auprès de la société Microsystems afin d'obtenir des versions plus stables du produit ainsi que des informations concernant leur stratégie concernant les versions sur les plate-formes Windows 32 bits.

C'est un état de fait que la société Microsystems n'a pas pu suivre l'évolution dans ce segment du marché et n'a pas pu réagir à nos sollicitations. Nous avons décidé d'arrêter la maintenance du produit. Cette décision a été prise en même temps que celle de lancer un appel d'offres "futur E-mail" qui devrait tenir compte des

besoins couverts à l'heure actuelle par le produit CaLANDar. La version actuelle en production de CaLANDar est 3.1x. Elle n'est pas "YEAR 2000 compliant". Nous vous suggérons d'en tenir compte dans le cadre d'utilisation du produit et d'informer vos utilisateurs.

L'appel d'offres "futur E-Mail" a été déjà publié et, selon le planning prévu, il devrait donner le produit de remplacement en temps utile pour éviter le problème de l'année 2000.

Cependant pour couvrir un possible retard dans la mise en route de nouveau mail, DI-STB est en train de tester les dernières versions (4.01 et 4.40) de CALENDAR et les premiers tests semblent être encourageants.

Pour plus d'information contacter :  
M. ROSETY (DI-STB – tél. : 34995)

Point de contacts DI-STB cités sous cette rubrique;

Softline: <http://www.cc.cec/softline>

Pierre Damas, téléphone: 33497, mail:  
[pierre.damas@di.cec.be](mailto:pierre.damas@di.cec.be)

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[joseluis.barrios@di.cec.be](mailto:joseluis.barrios@di.cec.be)



## 1. PLATES-FORMES

	Système d'exploit.	Disponibilité ON-LINE %		Charge (TINS)		
		Mai 98	1er trim. 98	Mai 98	Juin 97 à mai 98	Moyenne mensuelle
AMDAHL	MVS	100,00	99,93	175,12	1.938,58	161,55
	PRODCRAY	100,00	100,00	216,37	3.539,25	294,94
	VM	99,76	100,00	14,37	396,42	33,03
BULL	GCOS8	100,00	100,00	9,71	105,57	8,80
	DPX20	100,00	100,00	6,44	139,82	11,65
DIGITAL	SINCOM A	-	-	27,15	446,66	37,22
	SINCOM D	-	-	32,83	692,70	57,72
	SINCOM T	-	-	11,79	333,89	27,82
ICL	OSLUX1	-	-	64,74	971,23	80,94
SNI	BS2000	100,00	99,93	25,47	243,44	20,29
	NILE1	98,92	100,00	51,64	1.121,31	93,44
	NILE2	98,94	99,07	79,06	961,90	80,16
TOTAL		99,70	99,87	714,69	10.890,76	907,56

## 2. CHARGE (EN TINS) PAR SYSTEMES D'INFORMATION

Systèmes d'information	Systèmes	Consom. mai-98	juin-97 à mai 98	Moyenne mensuelle	1° trim. 97	1° trim. 98
COMEXT	PRODCRAY	156,02	2.093,32	174,44	666,41	395,58
SINCOM	MVS	101,19	1.174,01	97,83	243,67	336,34
NAP	NILE2	60,25	784,33	65,36	165,54	123,51
DOC SERVER	NILE 1	47,12	848,99	70,75	148,46	191,41
WINSUIVI	OSLUX1	45,66	579,24	48,27	245,44	159,15
SYSLING	MVS	34,82	304,86	25,41	49,71	96,14
SINCOM	SINCOM D	32,83	692,70	57,73	62,27	172,67
SINCOM	SINCOM A	27,15	446,66	37,22	44,92	155,81
EUROFARM	MVS	25,91	347,16	28,93	140,02	80,89
NEWCRON	PRODCRAY	19,67	430,33	35,86	105,51	134,44
SYSSERV	OSLUX1	19,07	375,23	31,27	-	62,91
TEXTILES	PRODCRAY	17,47	336,06	28,01	92,62	61,89
ASSIST	NILE2	17,05	141,29	11,77	0,01	92,92
SOFTSERV	BS2000	12,22	17,84	1,49	-	30,75
SINCOM	SINCOM T	11,79	333,89	27,82	98,38	58,82
APPOLREG	MVS	10,14	71,94	6,00	-	3,92
SINCOM	PRODCRAY	9,00	330,42	27,54	0,04	157,76
CELEX	GCOS8	7,89	83,20	6,93	17,85	17,87
CRONSEC2	PRODCRAY	7,27	7,28	0,61	-	0,00
MULTILIS	DPX20	6,36	132,60	11,05	31,49	34,98
Autres SI		45,82	1.359,41	113,28	418,97	220,45
Total		714,69	10.890,76	907,56	2.531,31	2.588,21

**3. CHARGE (EN TINS) PAR DG TITULAIRES DES SYSTEMES D'INFORMATION**

DG Titulaires	Consom. mai-98	juin-97 à mai 98	Moyenne mensuelle	1° trim. 97	1° trim. 98
EUROSTAT	222,48	3.242,28	270,19	1.002,52	690,76
DG XIX	182,05	3.053,43	254,45	456,35	881,58
SDT	133,21	2.059,16	171,60	590,73	471,8
DG XVI	72,64	895,56	74,63	190,57	152,82
DI	30,98	199,31	16,61	8,34	136,38
DG I	19,48	592,73	49,39	0,02	66,87
DG III	17,47	336,06	28,01	92,62	61,89
DG IX	12,33	78,57	6,55	58,34	32,78
OPOCE	7,89	85,39	7,12	18,33	17,87
DG X	6,38	138,68	11,56	41,04	35,13
DG VII	5,07	70,71	5,89	11,21	21,52
SG	2,44	72,75	6,06	44,66	7,6
DG XVII	0,98	16,78	1,40	3,10	1,88
DG IV	0,59	0,16	0,01	1,81	1,62
DG XVIII	0,28	4,29	0,36	6,50	5,09
DG VI	0,26	7,41	0,62	2,01	2,16
CDC	0,11	7,39	0,62	0,29	0,29
SPP	0,07	1,24	0,10	2,63	0,16
DG II	0,00	0,08	0,01	0,01	0,01
DG V	0,00	17,38	1,45	0,00	0,00
DG XIII	0,00	9,69	0,81	0,00	0,00
DG XX	0,00	1,71	0,14	0,00	0,00
SPC	0,00	0,00	0,00	0,23	0,00
DG I	0,00	0,00	0,00	0,00	0,00
<b>Total</b>	<b>714,69</b>	<b>10.890,76</b>	<b>907,56</b>	<b>2.531,31</b>	<b>2.588,21</b>

## DI-STB's "ATELIER"

All modern institutions must have the appropriate tools in order to face up to the challenges of the present and the future. In the informatics domain we can say that this is not merely necessary, but indispensable.



With this in mind, the Commission's Informatics Directorate equipped itself with a lab, or "Atelier", a place to transform theory into reality by installing and testing the latest equipment and software, while making sure that they are compatible with the full range of in-house IT products.

Technology moves so fast and the sources of information are so numerous that we cannot possibly read all the available literature that is relevant to our jobs. The *atelier* will also help

us to focus on the information we need by providing an environment in which suppliers can present and demonstrate to us their offerings.

Now, after ten years without modification, we have given the *atelier* a new look.

A UTP network, as used in the more-recently-cabled buildings, has replaced the old coaxial network. We have installed a Cisco 5000 switch with a capacity of 148 connections at 10 Mb/s and 12 at 10/100 Mb/s. The switch allows us to have five different networks in the same room, totally independent of the other networks in the building.

Of course, there is also a network connection via a router to the DI's main network, while a fibre optic link to the DI's computer room will be operational soon. An ISDN line is also available.

We can hold workshops for a maximum of around 15 people. A projector and a large touch-sensitive screen are linked to a video switch that allows selection of several different sources at the touch of a button. The screen can also be used as an electronic or even as a conventional whiteboard.

Subject to certain constraints, the design of the new *atelier* allows normal work to be carried out simultaneously with presentations and demonstrations.

F. Javier Fernández Granados  
DI / STB

# Le product management nouveau est arrivé!

A la date du 1<sup>er</sup> juillet, un product management au nouveau "look" remplacera l'ancien.

Le nouveau product management est simplifié: il repose sur 4 familles de produits gérées par deux product managers (un issu d'une direction générale et l'autre de la direction informatique). Ces familles sont décrites en annexe ci-après.

Le product management est détaillé sur le serveur interne EUROPAPlus à l'adresse:

[www.cc.cec/di/ruc/product/home/htm](http://www.cc.cec/di/ruc/product/home/htm)

A cette adresse se trouvent la liste des produits, les consignes de product management ainsi que le tableau de bord indiquant l'état des actions. Ces documents sont réactualisés fréquemment.

## Pourquoi un product management?

Pour gérer le cycle de vie des produits (acquisition, déploiement, retrait) comme des professionnels de l'informatique, qui tiennent compte non seulement des besoins fonctionnels de la communauté des utilisateurs et de l'institution, de l'intégration avec l'architecture informatique, mais aussi du cadre budgétaire et des procédures administratives.

*Le product management est un service complet de gestion de produit qui vous est offert par les product managers. Ce service met en oeuvre une informatique conforme à l'intérêt général.*

## Quid des délais pour approuver un produit?

Ces délais sont à négocier avec les product managers. Il est clair que toute priorité justifiée sera traitée très rapidement, mais il faut savoir aussi que l'intégration dans le product management assure un support et une aide financière que n'auront pas des produits non officiels dont l'évolution technique serait à vos risques et périls. Contourner le product management pour gagner du temps, c'est un peu comme partir en voiture sans s'arrêter à la pompe à essence pour gagner du temps. On tombe vite en manque de ressources.

Dans l'intérêt de tous, merci de donner une chance au product management : contacter les product managers pour changer le statut d'un produit ou en proposer un nouveau.

Avec le product management nouveau, il n'y a pas d'excuse pour ne pas contacter un product manager! Si vous n'êtes pas satisfait des délais proposés, une solution peut être trouvée de manière transparente avec plus de ressources ou une réévaluation des priorités avec l'aide de la Cellule Evolution Stratégique et du CTI. Contourner le product management est la voie la plus rapide pour s'exposer à bien des difficultés par la suite.

Les product managers peuvent être contactés par courrier électronique ou à l'adresse suivante:

**Famille Hardware and Operating System**

M. P. HIRN tél. 94392 BU-1 03/57 | M. J.-P. LAMBOT tél. 60201 IMCO 3/4

**Famille Network and Telecommunication**

M. W. BEURMS tél. 67357 RP11 01/65 | M. K. DE VRIENDT tél. 68363 IMCO 0/20

**Famille Office Automation and Document Management**

M. F. KODECK tél. 57435 BREY 08/292 | M. J. PUIG tél. 68989 IMCO 03/8

**Famille Information Systems Infrastructure**

M. J. BUS tél. 68116 BU29 05/20 | M. J. MARÍN tél. 34531 JMO C2/25

La logistique du product management est assurée par l'unité DI-RUC. Le point de contact direct est:

M. P. GARANT tél. 33745 JMO C2/95

et si absent :

M. N. HILBERT tél. 33574 JMO C2/81.

La gestion des produits de sécurité est distribuée entre les 4 familles, avec un suivi particulier de:

M. G. BREMAUD tél. 33588 JMO B2/82.

**P. GARANT**  
DI / RUC

# CONSIGNES POUR LE PRODUCT MANAGEMENT

## TAXONOMIE ET DEFINITION

### Cycle de vie des produits

Le product management a pour objet la gestion complète du cycle de vie des produits informatiques (identifiés par le nom et le numéro de version): la sélection, la mise en oeuvre et le retrait.

La sélection d'un produit se fait en tenant compte des besoins collectifs des utilisateurs, de l'intégration technique avec l'architecture informatique et la base installée, et dans le respect des procédures d'acquisitions tout en veillant à un rapport coût opportunité optimum.

La mise en oeuvre d'un produit couvre la commande, l'installation, la formation et le support.

Le retrait couvre le déclassement du produit et une stratégie de migration des applications qui l'utilisent.

### Familles de produits

Les produits informatiques sont répartis en quatre familles:

« *Hardware and Operating System* » et « *Network and Telecommunication* » pour l'infrastructure de base, et « *Office automation and document management* » et « *Information systems infrastructure* » pour l'infrastructure de gestion de l'information. Au-dessus de ces familles de produits se construisent les systèmes de gestion de l'information dans le cadre du project management.

Le contenu de ces quatre familles de produits est publié régulièrement. A chaque produit correspond un statut et une classe.

### Statuts et classes de produits

Les statuts suivants correspondent aux différentes étapes de la vie d'un produit:

**EV** s'applique aux produits en évaluation (tests, phases pilote) avec un support ad hoc éventuel, et à éviter de mettre en oeuvre dans des environnements opérationnels. Les tests sont pilotés ou autorisés par un product manager et un rapport doit être produit.

**OP** s'applique aux produits opérationnels; le support est déterminé par la classe du produit.

**PO** s'applique aux produits en fin de cycle de vie technologique («phased out») dont le retrait est proche. Le support de ces produits est maintenu comme des produits OP, mais avec une tendance à la baisse et il est déconseillé d'investir dans leur utilisation.

**AD** s'applique aux produits à déclasser dans le cadre des procédures de déclassement applicables.

Les classes suivantes sont appliquées aux produits de statut OP et PO:

**La classe A** désigne les protocoles, interfaces et formats dont la mise en oeuvre est obligatoire pour des raisons d'architecture.

**La classe B** désigne les produits d'intérêt général couvrant les besoins communs aux directions générales. La liste des produits offre un éventail raisonnable de produits permettant d'offrir le support central demandé et de couvrir les besoins. Pour des raisons d'efficacité du support, l'objectif est de sélectionner un seul produit de classe B (OP) par type de besoin.

**La classe C** désigne les produits correspondant à des besoins spécifiques dont il a été justifié qu'ils sont non couverts par les produits de classes A et B. Ces produits ne bénéficient pas d'un support garanti. Toutefois, si leur utilisation se généralise, le passage en classe B doit être étudié.

### Liens avec les protocoles, les projets et les systèmes d'information

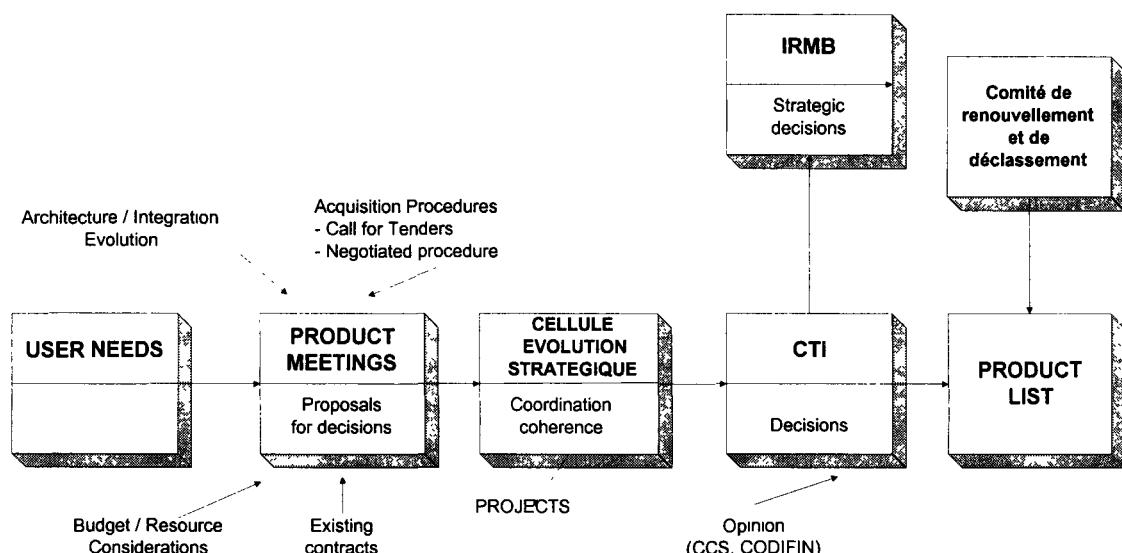
- La liste des produits (à part la classe A) contient des produits, des logiciels ou équipements achetés sur le marché, mais aussi les produits résultant de projets de développement internes
- Certains projets sont des actions de product management dont l'ampleur ou la visibilité justifie la création d'un groupe de travail organisé en projet. (ex: NTP, traitement de texte, courrier électronique, SNet) Les conclusions des projets alimentent le product management.

- Les systèmes d'information ne sont pas des produits directement achetés sur le marché, mais plutôt des développements sur mesure (en totalité ou partiellement). Le développement des SI est traité dans le cadre du project management. Le product management traite de la fourniture des outils de développement et du choix de l'infrastructure supportant les systèmes d'information. Tous les projets doivent faire référence aux consignes du product management et les produits résultant de leur développement être gérés dans le cadre du product management.

## L'ORGANISATION DU PRODUCT MANAGEMENT

### Les product meetings

Le diagramme ci-après présente une vue d'ensemble de l'organisation du product management.



Le product management repose sur la préparation et la tenue de product meetings ou de réunions de réflexion préparatoires aux product meetings. Ces réunions auxquelles toutes les directions générales sont conviées permettent de réfléchir ou de décider de l'avenir des produits.

Les réunions préparatoires aux product meetings sont informelles et ne nécessitent pas de conclusions. Ce sont des forums d'échanges d'informations et d'expériences pour progresser vers un product meeting formel.

Les product meetings sont des réunions visant à approuver des conclusions à soumettre en principe à la Cellule Evolution Stratégique (CES), qui joue un rôle de moteur et d'impulsion du product management. La CES transmet les propositions de product management au CTI qui tiendra compte de l'avis de la Cellule de Pilotage (qui prépare les décisions budgétaires de l'IRMB) et du comité de renouvellement et de déclassement.

### **Les documents de référence du product management**

Le cadre de référence du product management est constitué des documents suivants:

- Architecture informatique
- Architecture de sécurité
- Consignes financières de la Cellule de pilotage
- Consignes relatives à l'acquisition et au déclassement des produits.

Les besoins des utilisateurs sont exprimés:

- Directement, par des groupes utilisateurs dont les travaux visent à définir les besoins fonctionnels pour la sélection de produits, à rapporter les problèmes d'utilisation lors de la mise en oeuvre et à faire le relevé des contraintes liées au retrait d'un produit.
- Indirectement, dans les schémas directeurs
- et lors d'enquêtes de satisfaction
- et via les comités représentant l'institution (CTI, IRMB, ...)

### **Coordination spécifique**

En fonction des données traitées, une coordination spécifique peut s'avérer être nécessaire avec:

- Le CODIFIN pour les décisions touchant à la diffusion d'informations (technologie internet-intranet)
- Le CCS pour la conformité aux normes et standards; les DGIII et XIII pour les réseaux transeuropéens
- Le CII ou un groupe de travail inter institutionnel pour les dossiers où des aspects inter institutionnels doivent être pris en compte
- Les directions générales compétentes pour les procédures d'acquisitions sur les marchés, ainsi que les aspects juridiques et financiers
- La DG XI pour le respect éventuel de considérations écologiques.

## **RESSOURCES ET SUIVI DU PRODUCT MANAGEMENT**

### **Product managers**

La gestion de chaque famille de produits est assurée par deux product managers venant respectivement d'une direction générale et de la Direction informatique, et qui ont reçu un mandat officiel du CTI pour assurer ces responsabilités.

Le support logistique est assuré par l'unité RUC de la Direction informatique. Le bureau de sécurité et l'unité RUC de la Direction informatique assurent un rôle particulier de cohérence au sein du product management.

Les product managers sont au 1<sup>er</sup> juillet 98:

- pour la famille «*Hardware and Operating Systems*» MM. Pierre HIRN (DG II) et Jean-Pierre LAMBOT (DI)
- pour la famille «*Network and Telecommunication*» MM. Wilfried BEURMS (DG III) et Karel DE VRIENDT (DI)

- pour la famille «*Office Automation and Document Management*» MM. François KODECK (SG) et Javier PUIG (DI)
- pour la famille «*Information Systems Infrastructure*» MM. Jacques BUS (DGXIII) et José MARÍN (DI)

### Suivi du product management

L'état des lieux et la stratégie de chaque famille de produits seront présentés à tour de rôle à chaque CTI, soit 2 à 3 passages par an et par famille. Cette présentation est l'occasion d'un débat sur les priorités et les ressources à mettre en oeuvre pour la famille concernée.

Entre ces étapes que constituent le passage au CTI, la CES assure le suivi du product management notamment à l'aide du tableau de bord du product management qui décrit les actions en cours. La CES règle les problèmes de coordination entre familles de produits.

La liste actualisée des produits est publiée dans chaque bulletin informatique. La liste des réunions de product management est publiée dans le calendrier "Coopération entre la DI et les DG".

### CONSIDERATIONS GENERALES

Le product management nouvelle mouture se distingue par le fait que:

- Les procédures restent les plus simples possible et le nombre de familles a été réduit à 4

- Les ressources dont les product managers disposeront pour gérer les produits font l'objet d'une évaluation régulière
- Le développement d'une culture de product management est renforcé par une sensibilisation des utilisateurs et un appui de la hiérarchie.

Les consignes du product management sont des documents de référence pour la mise en oeuvre des projets (systèmes d'information ou grands projet d'infrastructure). Les documents de stratégie des familles de produits sont des compléments à la version courante de l'architecture informatique.

***Les product managers jouent un rôle essentiel dans la mise à jour et l'évolution de l'architecture informatique.***

En effet, les stratégies d'évolution des familles de produits amènent aussi à considérer à un certain moment que les bases sur lesquelles reposent une architecture ont changé fondamentalement. Ensemble avec les concepteurs des systèmes d'information, les product managers sont alors les premiers à redessiner l'architecture informatique de demain.

**P. GARANT  
DI / RUC**

# SI2 Implementation ..... From Prototyping to Production

An account of project cycle management, design changes and implementation challenges while putting in place a completely automated budget management system at a decentralised Agency.

The mid-nineties witnessed the spawning of a new type of Community organism in the form of the de-centralised Agency. The sound financial management of these geographically remote institutions has been an issue of major concern to the relevant monitoring and inspection bodies - DGXX, the European Court of Auditors and the European Parliament. This has resulted in strong pressure for the implementation of automated budgetary and general accounting solutions as soon as was practically possible. In '96, the Agencies collectively launched an Invitation to Tender for a bespoke accounting system. Unfortunately, this inconclusive procedure largely produced highly expensive offers from the major software houses whose solutions were not compatible with the needs of the small, widely dispersed Agencies, each of which had limited infrastructure and low operational budgets.

SI2 is a compact budget management system based on Oracle/Powerbuilder technology that was originally written by DGXIX as a front-end component for the Commission's SINCOM2 system development. However, its flexibly structured database, open architecture, rich and highly relevant functionality, fast response, tight security and simple user interface all based on Commission standard software products made it a prime candidate for adoption by the Agencies.

This paper describes not only the problems and pitfalls encountered along the path to putting SI2 into production but also how the development has opened up the road ahead for simplifying and speeding-up procurement and payment procedures, vastly improving management decision making and facilitating financial planning methodologies. The benefits include:

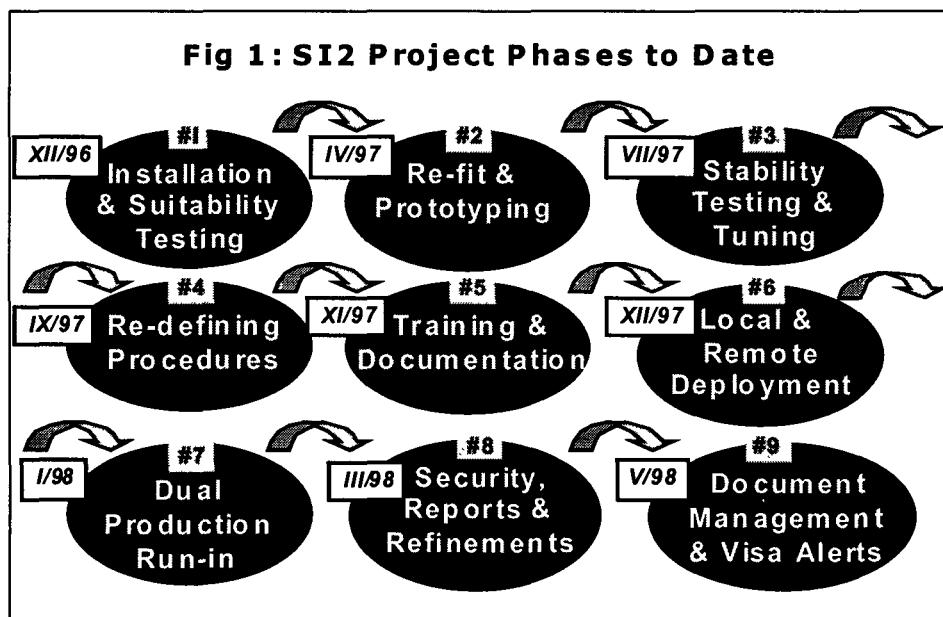
- creation of efficient workflow operations
- provision of appropriate and timely management information using powerful reporting tools
- reduction of costly paper chains through the application of groupware document management tools
- establishment of robust and transparent control of virtual and real monetary flows by lucidly defining and modelling business rules.

## PROJECT PLANNING PHASES

The SI2 project implementation took place over a 16-month period characterised by nine overlapping phases identified in Fig.1 below. Each phase provided its own set of problems, questions and technical challenges, many quite different from those faced by the SINCOM2 implementation team. However, the rapid deployment of this third party product at Turin was achievable for the following reasons:

- a small user group (about 50) requiring a limited set of functions
- a new, well-equipped installation
- support staff already developing and maintaining local Oracle/Powerbuilder applications

Moreover, we were privileged to be able to work alongside the Commission's SI2 development team who provided us with installation instructions, source code, data models and pre-production versions as soon as they became available.



### Phase 1 - Installation and Suitability Testing

[Dec '96 - Apr '97]

Our first glimpse of SI2 was in late '96 on a stand-alone (PC) set-up. At this early stage many of the utilities were not developed. However we managed to piece together a Functional Overview through the following actions:

- Performing a **User Interface Appraisal** in which we viewed the budget tree hierarchies, drilled down menu structures and tested core routines (eg. Commitment procedure) in the application shell. A notable application design

feature that was to prove itself effective in the performance tests later was the extensive use of PL/SQL stored and executed within the Oracle instance. This approach effectively lightened the front-end processing load in the PowerBuilder executables – this was an inventive approximation to a three-tier client-server architecture.

- Conducting an ***Entity-Relationship Model Analysis*** by dissecting and tracking table links across the database structures using the development team's own ERWIN design tools. We were impressed by the flexible approach adopted in the design with extensive use of master-detail relationships, even though, for present operations, one-to-one table maps could have been adopted e.g. Transfers, Commitments and Payments were always modelled through Header and Detail tables building in extension possibilities for new procedures.
- During this period we tested three different versions of SI2. Each installation was time consuming with a heavy load on ***Oracle Database Administration Tasks*** such as redefining tablespaces, checking failed import logs, recompiling and testing packages, carrying over customisation from previous versions, and manually changing field values and system parameters. The main problem was maintaining consistency between the versions of code in the PowerBuilder executable and the Oracle database.

By March '97, we had made the decision to run with SI2; by now, we were well acquainted with the Client-Server configurations and our first action was the **Specification and Procurement of a Hosting System**. We opted for an Intel-based symmetric multi-processing machine (PentiumPro/200) with redundant disks running Windows NT4 to host the Oracle7.2 RDBMS for SI2.

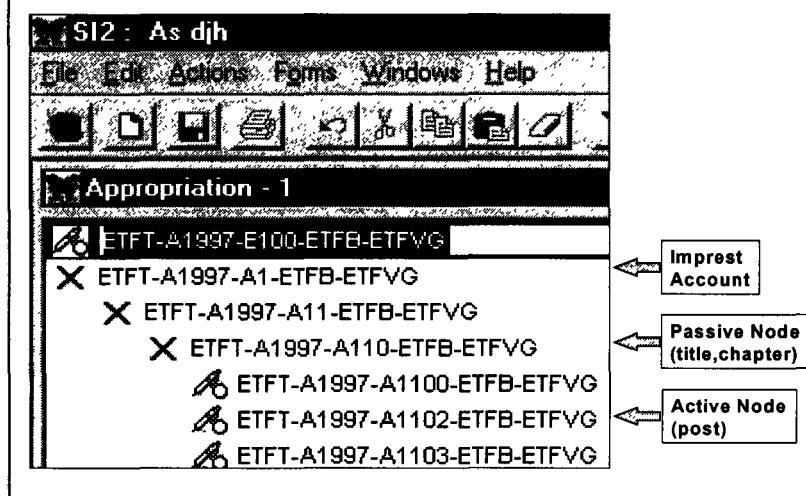
## Phase 2 - Refit and Prototyping

[Apr '97 - Jul '97]

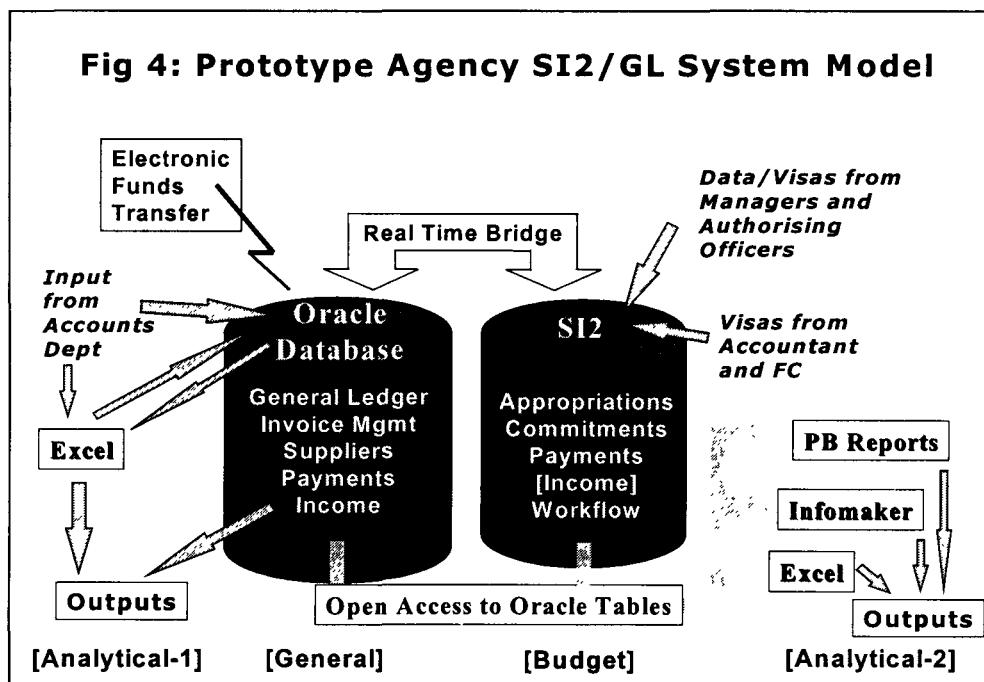
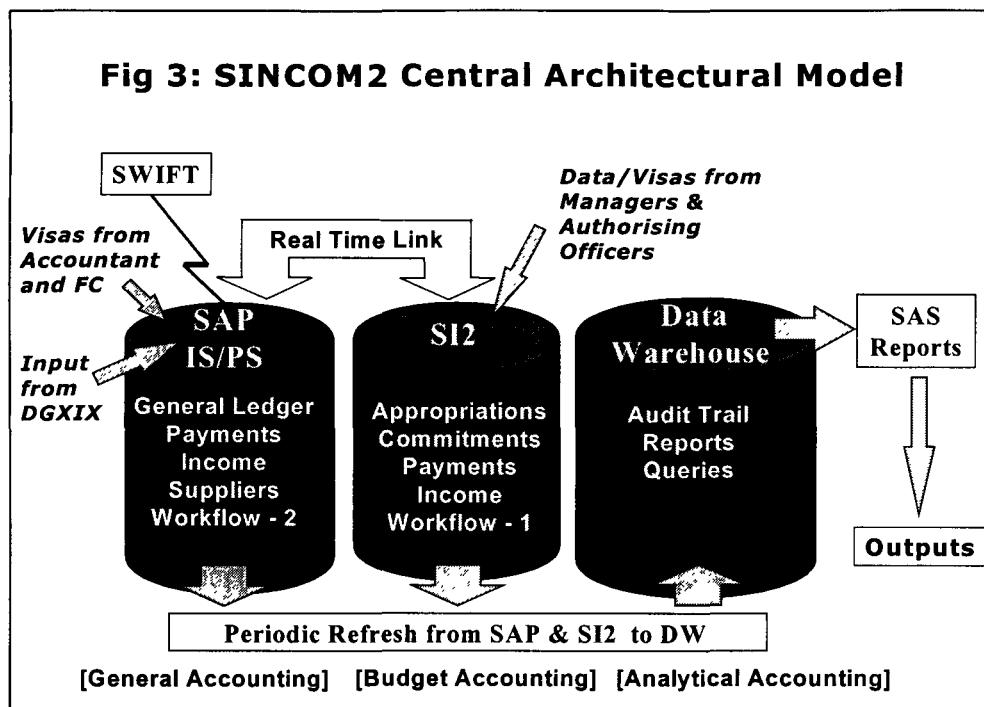
The development versions of the SI2 database were all populated with test data siphoned off from the SIBECA financial system at the Joint Research Centre (Ispra) since this site was designated the test and run-in site before SINCOM2 went live within the Commission. In order to properly simulate our own budget operations there were a number of critical areas that required re-engineering:

- The ***Appropriations Tree Re-structuring*** exercise was particularly onerous due to the absence of a budget tree loading utility - the SI2 development team had only written a customised facility that ported the data from the highly proprietary SIBECA database structure. The budget hierarchy (shown in Fig 2) was initially created manually by inserting values across a subset of tables using PowerBuilder data windows.

**Fig 2 - SI2 Budget Tree Structure**



- The most radical departure we made from the mode in which SI2 was originally intended to be implemented within SINCOM2 concerns the **Workflow Re-configuration** (Figures 3 and 4). From the point of view of a comparatively small organisation like ETF, we were not convinced by the large-scale architectural design underpinning SINCOM2 where a SAP/R3 financial management system was to be the core engine and the powerful, yet costly, SAS data-warehousing software was to be used for reporting. We took advantage of the fact that SI2 was so flexibly designed that it could be set-up to run independently of the two aforementioned commercial packages and we configured it so that the full visa process was managed within SI2 and not split across two systems as in SINCOM2. This stand-alone approach was the key to rapid implementation since we would not be delayed either by the parallel development of a general accounting system or by a bridge between the two systems (General / Budgetary accounting). The breathing space provided by this independent SI2 implementation allowed us to consider the design alternatives for general accounting in more depth (this topic is treated at the end of this report).
- Another area where we needed to adopt a slightly different approach from the system standard was with the Security Management Set-Up. First, we had to create extra roles to accommodate the stand-alone situation. Secondly we needed to model the organisational transition which involved moving from a centrally driven paper system completely managed by our Finance Unit to a distributed electronic system in which Financial Officers would only be able to monitor activities via their Accounting Officer role.



- One feature that we found very useful during the prototyping stage was the **Posting Criteria Functionality**. This presented the possibility of classifying all budgetary operations according to a set of pre-defined criteria. For instance, in a budgetary post designated for Computer Equipment, it would be possible to flag each transaction according to type (Servers, PCs, Portables, Printers etc), general purpose (development, replacement, loan etc), programme (Phare, Tacis or ETF general) etc. We did not implement this functionality at the outset due to the learning load already incumbent on our users. Nevertheless, we plan to incorporate this functionality when we address analytical accounting requirements in '99.

## Phase 3 - Stability Testing and Tuning [Jul '97 - Sep '97]

The tedious tasks of this period were tempered by our plan to demonstrate our proposed solution to all the Agencies and DGXX during a workshop we held in mid-September. SINCOM2 was to go live at JRC, Ispra on version 36 earlier in the month, but since it took considerable time to carry out the **re-loading processes for a full upgrade** we decided to stay with version 34 for the public showing of our SI2 implementation. Consequently, we performed our rigorous **Testing Programme** on this last main pre-production release. The biggest problems we encountered were with the execution of the Payments cycle and date controls yet we did find work-arounds. We routinely submitted our **Bug Logs** to the SI2 development team requesting fixes for the future production version. We also worked on **improving client configurations** and conducted our own tests using the newly available PowerBuilder 5 executable. At the back-end, we upgraded to Oracle 7.3 and started the **Oracle Database Tuning** task, concentrating on the memory loading of the packages and procedures, increasing the number of rollback segments and refining table storage parameters.

## Phase 4 - Re-defining Procedures [Sep '97 - Nov '97]

We now had a fully functional prototype, tested and tuned and successfully demonstrated to our partner Agencies, but we had become victims of our own success. We were just 3 months away from the planned production start date with a lot of prior milestones to achieve, yet, as a direct result of the workshop, a group of other Agencies were requesting set-up support so that they could also evaluate SI2. We had no resources to conduct a site by site installation, so our compromise was to hold a technical workshop in Copenhagen in mid-October where we provided feedback and advice on installation procedures to Agencies from Copenhagen, Dublin, London and Luxembourg. On reflection, this was a turning point in the Agencies' generally cautious approach to SI2 since it became apparent that it could be efficiently used for budget management without having to embrace the full SINCOM2 solution.

Back in Turin, we now had to refine and expand our business procedures to make full use of SI2 functionality. The following features were to be incorporated within the new system:

- **Reservation Concept** – this is the possibility to completely control, a priori, allocations made to different Managing Officers in a particular budget line. At ETF, prior to SI2, we often experienced problems in manually controlling a budgetary post whose allocation was shared across different departments and units, for instance, the missions budget (see Fig 5). It is possible to make these a priori allocations in SI2 using the reservation feature and in this way provide complete control over expenditure for each slice of the budgetary post since commitments (and/or pre-commitments) can only be raised against these reservations by the appropriate manager.
- **Pre-Commitment Interpretation** – was an adaptation we made using the pre-commitment function to model a particular piece of data we found lacking with our management information on budget expenditure. This information gap we termed

the “pipeline” data. Previous reporting on budget dynamics primarily consisted of snapshots of levels of Commitments and Payments. No information was available either on procurement procedures that had been launched (some with timescales of 4-6 months before commitment status) or on level of consumption on Global Commitments.

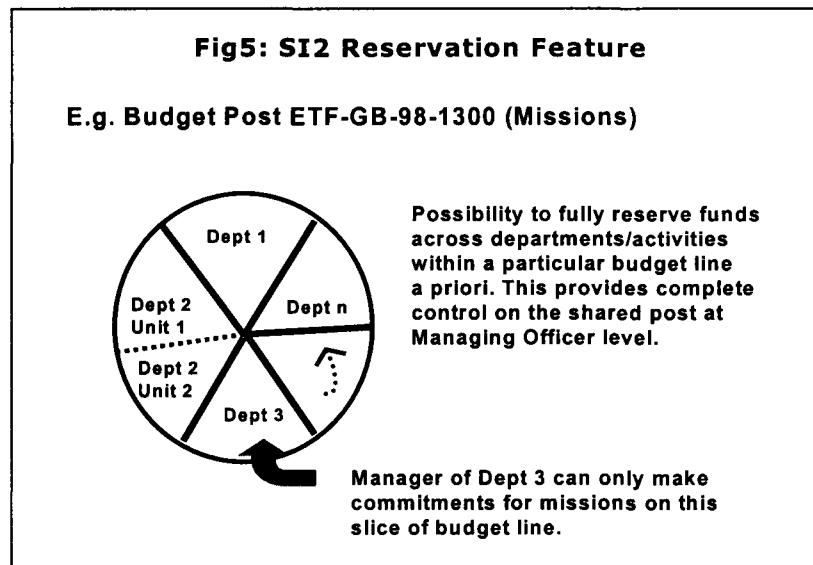
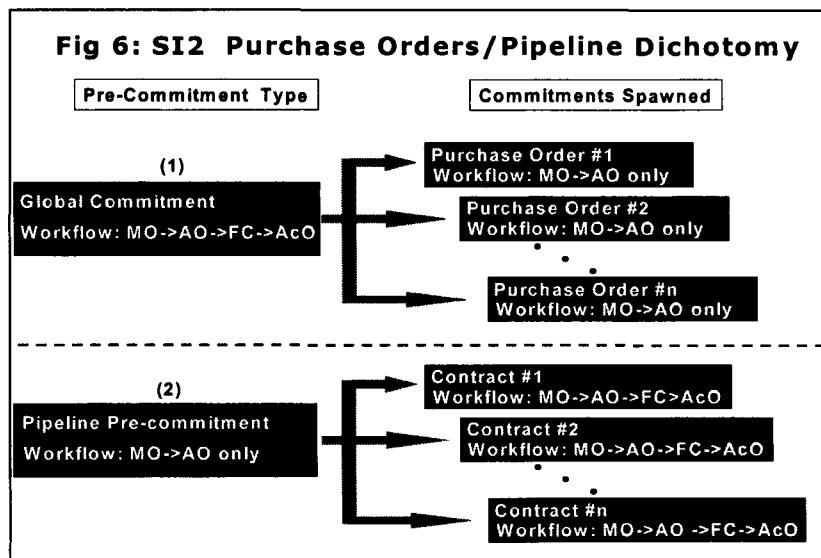


Fig 6 demonstrates how our ‘dual interpretation of pre-commitment’ helped overcome this information gap. The rule we have created is that, as soon as a procedure is launched, the information that a budgetary amount is in the process of being consumed is captured by a pre-commitment. Similarly, small commitments from global commitments can also be logged.



- **Imprest Account Management** – this is the weakest feature implemented within SI2 since although it can be modelled by creating a non-budgetary post i.e. outside the general budget tree, there is no linkage facility provided between a commitment process and an associated imprest payment. We have tried to invent procedures to represent this association, such as replicating the budget tree as non-budgetary imprest payment posts outside the hierarchy. Although we managed to provide the required controls, the process was overly cumbersome and was rejected by the users. Another approach was to create an extra role in workflow for an Imprest Payments manager but this still relied on a certain degree of manual control. We have now abandoned both approaches and manage these exceptional operations through an associated Excel spreadsheet, taking the view that the electronic system will have such a significant impact on reducing payment cycle times that the need for this operation will decrease considerably.
- **Workflow re-organisation** – in order to properly set-up user roles and security, it was necessary to identify all Authorising Officers, Managing Officers and their sub-delegates from the outset. For reasons of consistency and uniquely assigned responsibilities we eliminated the possibility of a post being “shared” by a group of Authorising Officers and insisted on a one-to-one map between the responsible authority and a budgetary post. Furthermore, sub-delegations could only follow rules of line management so that if electronic signatures rules were abused (a secretary inputting the required visa password for her manager) then this would still be the direct responsibility of the manager concerned and not be “semi-authorised” by the system.
- **Beneficiary / Third Party treatment** – this was a very useful by-pass route built into SI2 that allowed lightweight input of contractor (beneficiary) details even though he was not in the official supplier database. In this way the commitment process would not be held up awaiting approval of the supplier. Since our supplier (third party) database is spawned from our Contracts database, delays could emerge due to scheduled uploads into SI2. Furthermore, for small scale suppliers - who did not go through the contracts database - this was the first point of input. A follow-up procedure in which beneficiary data was to be made consistent with the master Third Party database was to be implemented when in production.

## Phase 5 - Training and Documentation

[Nov '97]

Our first task in introducing the users to the system was to develop adequate system documentation and user guides. However, since the principal working language of the intended user group was English we could not take advantage of the extensive and detailed French language guides developed by Van Dyck (the training consultants for SINCOM2). In consequence we produced an abridged **SI2 training manual in English**.

We identified a full user group of 52 users and opted for **function-based training** (Managing Officer, Authorising Officer, Financial Controller, Accounting Officer, Security Officer) with groups of 4-6 users. We also provided users with a **training database** (for further familiarisation) which was conveniently available through their workstations.

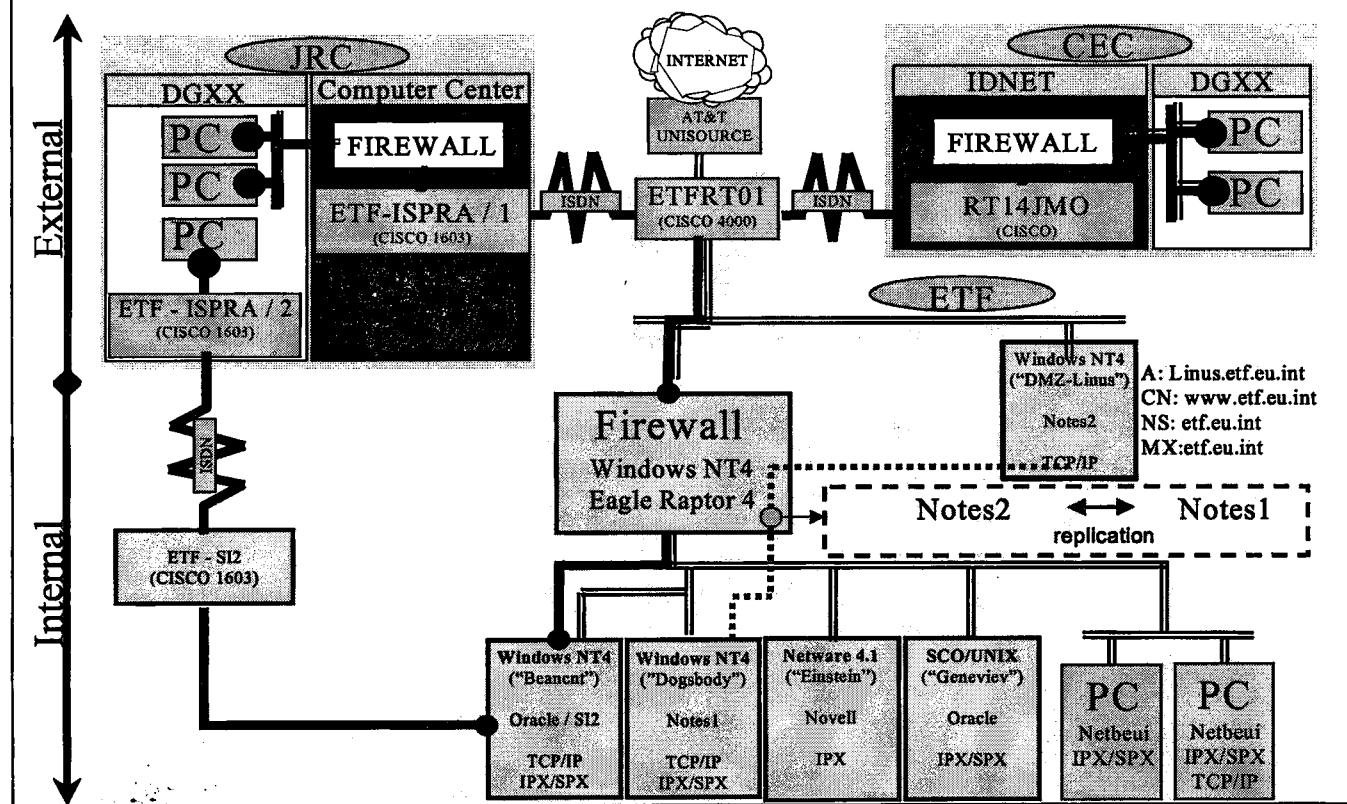
Since users were trained more than 6-8 weeks in advance of production, refresher courses were planned during the start-up phase and it was agreed that all initial transactions would be expert-assisted.

## Phase 6 - Local and Remote Deployment

[Dec '97]

In this frenetic short month, there were a number of critical, last minute set-up tasks to complete. We decided on a **Network-loaded executable** (si2.exe) which would give us an extra level of workstation security through our Novell Netware network management system. A **clean SI2 production database** was set-up and the fully loaded instance was tested. A **dedicated workstation and ISDN router** on a private network was installed at JRC, Ispra for use by DGXX. This configuration will be augmented by further redundant connections both to DGXX in Brussels and JRC. Each of these two access routes will be initiated through our firewall (Raptor Eagle 4/5 for NT) once SQL\*NET2 pass through connections are supported (see Fig.7 for the communications architecture that is in place or planned). In order to be able to properly troubleshoot the operationally critical ISDN connection to DGXX, we also set-up a replica of the communications components locally. This action paid off a few months later in pin-pointing the precise point of failure when lines happened to be down at the critical moment when DGXX wanted to conduct reliability tests for their electronic visa process.

**Fig 7: SI2/NOTES - Communications Architecture**



## Phase 7 - Dual Production Run-in [Jan '98 – Feb '98]

The first task on the live system was to make **initial credit transfers** to the Budgetary Posts (25% of the draft budget pending Governing Board approval in the February). This action was carried out exceptionally by an Appropriations Managing Officer and approved by the Accounting Officer for the kick-off of the system; in future years, a new Budget Officer role would be defined to perform this task. **All SI2 transactions were mirrored separately on paper**, the latter being designated the master system during the transition period. The first **SI2 reports** to be written were designed to replace the manual paper system by printed copies generated from SI2, reducing the risk of error between two inputs.

DGXX visas were provided in a two-step process. First, they are provided manually on the paper commitment sheets and subsequently input electronically via the remote connection. The Paper/Dossier Workflow was also fully maintained; the estimated **human resource cost of maintaining dual systems** was an increase in workload of up to 50%.

## Phase 8 - Security, Reports and Refinements [Mar '98]

Two months after the start of the production run, we faced investigations into our security procedures by DGXX and the Court of Auditors, the following being critical issues:

- **Independent security review** - this had been conducted 6 months previously by the company which had been installing our firewall. This security health check was a pre-requisite for installing and operating SI2 involving remote connections through our external network.
- **NT and SI2 Oracle DBMS** - our SI2 consultants were denied access to all administrator accounts involving production databases – access being restricted solely to A-grade Informatics staff.
- **SI2 Security Module** - Master Security Officer status was only provided to two members of our internal Advisory Committee on Procurements & Contracts (ACPC) who neither had access to SI2 nor held any responsibilities for Budget Execution.
- **Back-up/History Log** – For added security and inspection purposes a CD-ROM image of the live SI2 system is cut every two weeks and stored off-site. This could provide an audit trail if required in the future.

Basic reports for financial reporting purposes were developed on an “as needs arise basis” since we had no formal report specifications with which to work. The Powerbuilder development team responded on a two-day turnaround schedule for filtered transaction lists and snapshot reports. The reporting facility, SI2ADDON, was developed as a separate executable, which also provided transparent connectivity to the Contracts Management database system.

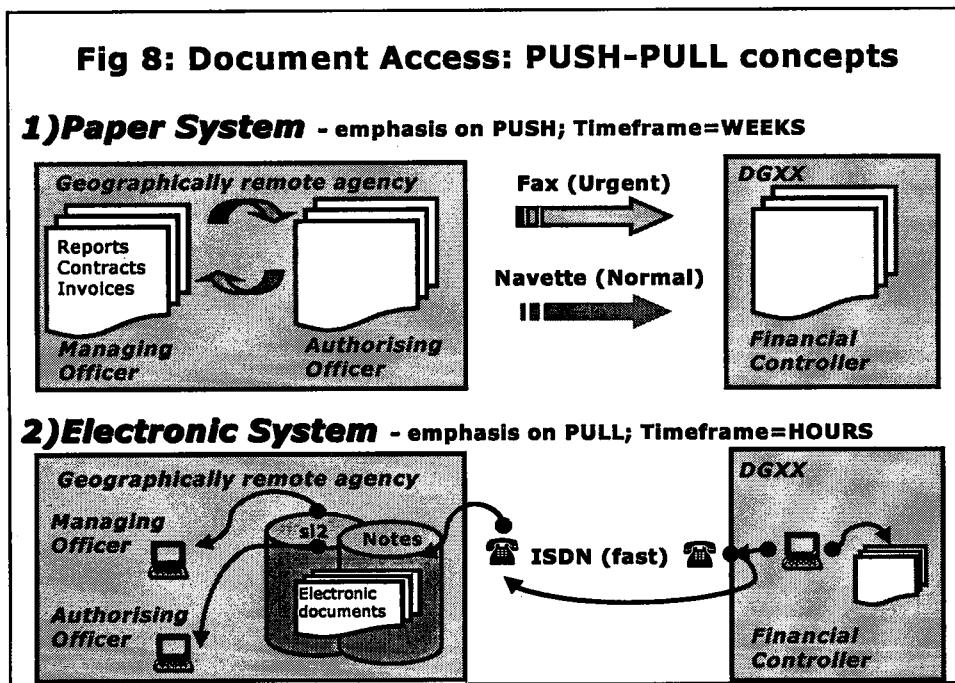
Since the third party (supplier) data already existed as part of a LOTUS NOTES/ORACLE contracts management system, we decided to manage this area of master data by

creating data pipelines between the two systems. The main problem here was that this segment of SI2 database design was not completely normalised, allowing only one bank account per company. The conflict was resolved by omitting this attribute from the import and populating the SI2 field using the alternative beneficiary field data wherever possible.

## Phase 9 - Document Management and Visa Alerts

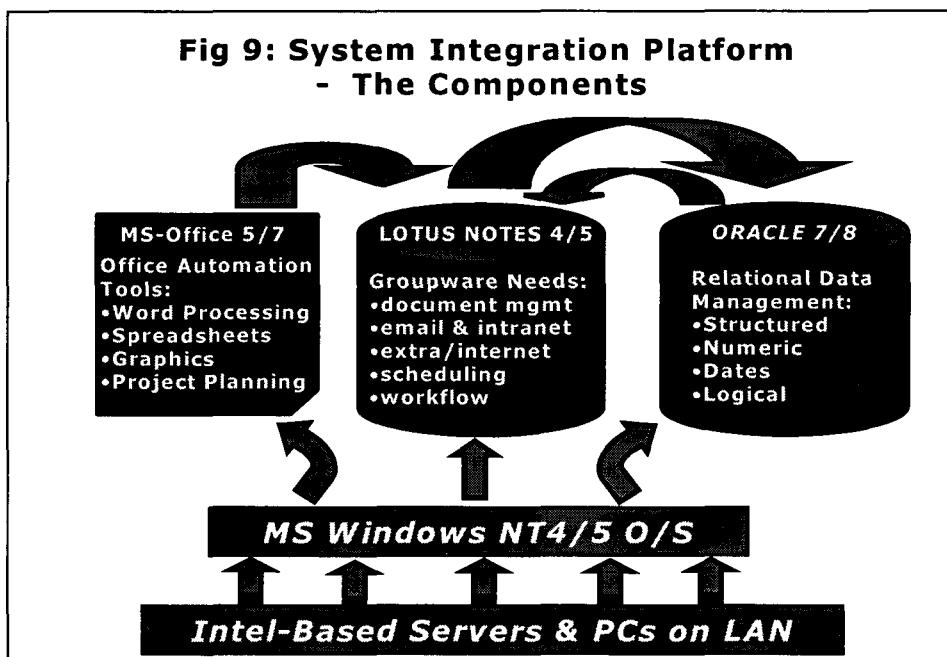
[Apr '98 – ]

Although SI2 is a powerful budget control and monitoring system in itself, its impact on improving the efficiency of the procurement process is limited by the absence of an integrated document and contracts management system. In order to streamline this multi-step procedure, it is important to change the emphasis on the way we manage the throughput of documents by allowing information to be "pulled" from an electronic repository rather than "pushed" in a paper chain as is the current practice. This change is illustrated in Fig 8 below.



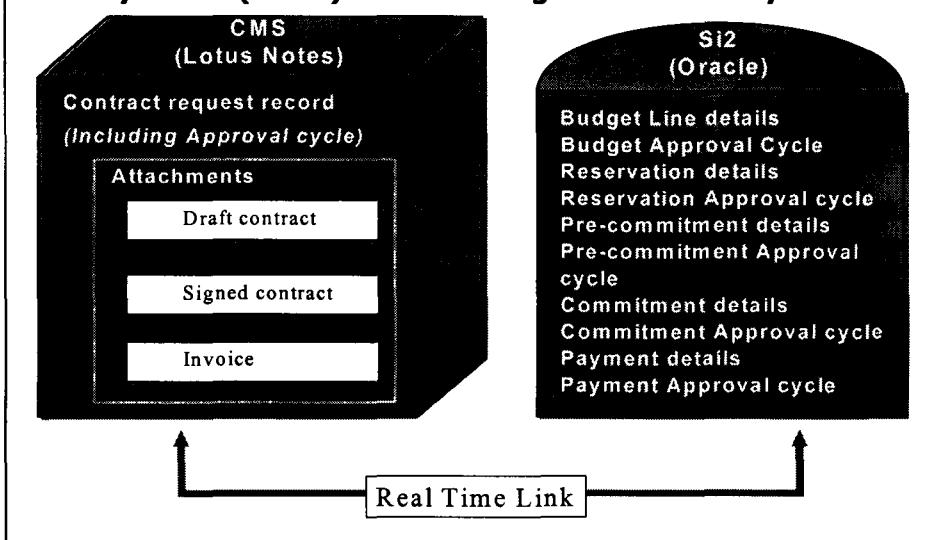
Access to supporting documents is planned within SINCOM2 using the "SAROS Mezzanine" document management engine - which will also be used with the ADONIS document tracking system. However, at ETF we already had a system integration platform in place (see Fig 9) for managing both structured and unstructured data.

**Fig 9: System Integration Platform  
- The Components**



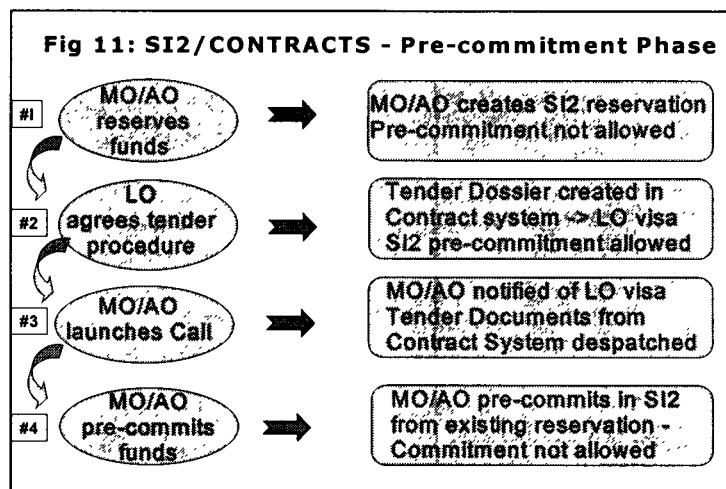
Files created by office automation products can be stored and free-text searched within our LOTUS Notes group-ware component that combines management of unstructured data with the required workflow and communication tools. In fusing this functionality with the efficient management of structured data in our Oracle relational database engine we have been able to create a document flow system which starts with Contracts and Tender Dossier Management, interfaces with SI2 and will eventually link with a payments system. The interplay between Contracts management and SI2 budget management (see Fig.10) is basically a flow control process which ensures that all budgetary operations are only initiated after the financial regulations have been properly adhered to. The full process can be divided into the following three stages:

**Fig 10: Data stored in the Contracts Management System (CMS) & SI2 Budget Control System**



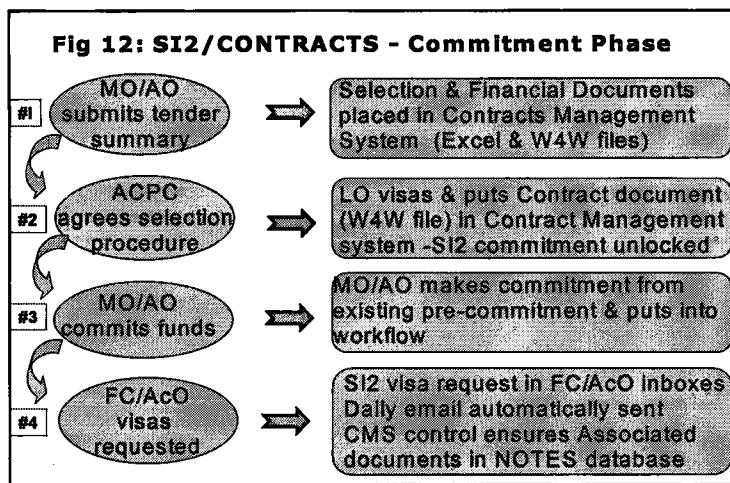
## I. Pre-Commitment Phase - Contract Management System

In this phase, shown in Fig 11 below, the Managing Officer (MO) with the approval of the Authorising Officer (AO) reserves funds in SI2 to signal that a particular procurement procedure will take place during the budgetary year. At this stage a pre-commitment (or commitment) against this reservation is blocked since there is no evidence in the system of consultation with the Legal Services group on any procedure linked to this reservation. Furthermore, the MO cannot start a procurement procedure in the Contracts Management System (CMS) without the proper reservation of funds (approved by the AO) in SI2. When the MO wants to launch a procedure from a reservation, he/she first creates an electronic tender dossier (terms of reference, type of procedure, potential tenderer(s) for restricted tender/direct agreement, particular contract features etc) within the CMS. This dossier is subsequently transmitted automatically (via NOTES email) for review (NOTES workflow feature) to the Legal Officer (LO). Once the LO approves the dossier, the review procedure is finished and the MO is free to launch the procedure and, at this juncture, the block is taken off the reservation within SI2. In the process of launching the procedure, the MO makes a pre-commitment within SI2 which, once approved by the AO in the SI2 workflow function, is signalled as funds actively in the process of being consumed as opposed to being dormant within a reservation. A full commitment is still not allowed at this stage since no supplier selection process has taken place.



## II. Commitment - MS-Office and Notes documents

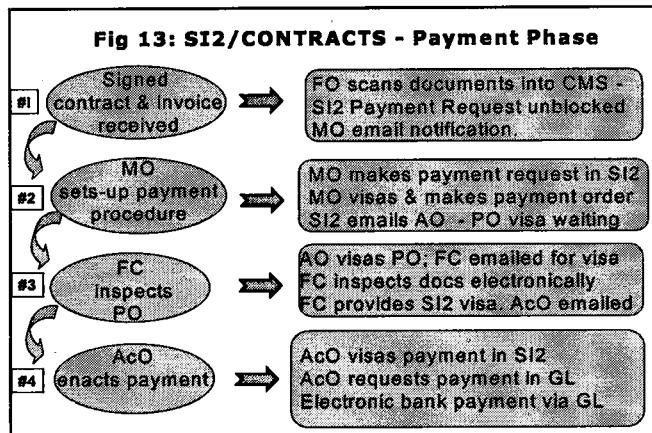
The process is illustrated in Fig. 12 below. Once the MO has completed the tender/supplier selection procedure, the necessary documents (technical analysis, financial analysis, selection report etc) are added to the relevant dossier record in the Contracts Management System for consideration by the Advisory Committee on Procurement and Contracts (ACPC). On successful review by the ACPC, the LO officer draws up the final contract, places this document into the Contracts Management system and gives final approval to the dossier.



The MO can then create a commitment against the "legally approved" pre-commitment. This commitment transaction requires the visa of both Financial Control (FC) and the Accounting Officer (AcO) and the controls linking SI2 with the Contracts Management System (CMS) ensures that both the FC and AcO can pull down and electronically inspect the full Tender Dossier before giving approval.

### III. Payment - Contract and Invoice scans

The payment process is outlined in Fig 13 below. The important feature is to ensure that no payment request can be initiated before the primary documents needed for payment (scanned last page of signed contract and invoice) have been added to the Contracts Management System (CMS). Once the MO has received the goods/services and invoice, he scans and introduces the resultant image documents (compressed 'tif' files) as compulsory additions to the Contract record. This will release the block on the relevant payment request in SI2 and the full payment cycle unfolds with Payment Order (PO) visas from FC and AcO in SI2 logging the actual budget line depletion. This action is followed by an 'AcO approved' electronic payment and corresponding journal entry in the General Ledger system. The efficiency of the above systems depends primarily on group-wide communications. Whereas Lotus NOTES provides this in-built functionality, SI2 only provides an INBOX function for workflow within itself. This means that the user must periodically log into SI2 and check whether there are transactions requiring approval. We translated SI2's passive mode communications into active mode as part of the integration process with Lotus NOTES. SI2 inbox tables are automatically scanned daily and outstanding visa requests are sent to the NOTES mail database for email notification transmissions (either through internal NOTES mail or through our 'X400' and 'SMTP' Message Transfer Agents for remote actors - DGXX). Consequently this automatic alert and reminder process keep users active and in-touch with the system's requests and requirements.



## THE ROAD AHEAD FOR FINANCIAL SYSTEMS AT ETF

Although significant progress has been made in establishing an efficient, secure and easy to use Budget Control system there is still a long and difficult development path that lies ahead with the following objectives in mind:

- SI2 certification (DGXX approval & CoA Inspection Procedures)**

Guarantees on security, redundancy and audit trails are the main audit requirements. With SI2 we have inherited the security umbrella created for SINCOM2 and all developments made within the system will adhere to this umbrella. LOTUS Notes uses public key cryptography for authentication and has a level C2 security classification which adequately meets the needs. Local procedures have been described in Phase 3 above and, at the time of writing, certification for the SI2 component is being sought from DGXX.

- General Accounting System (Jan 99)**

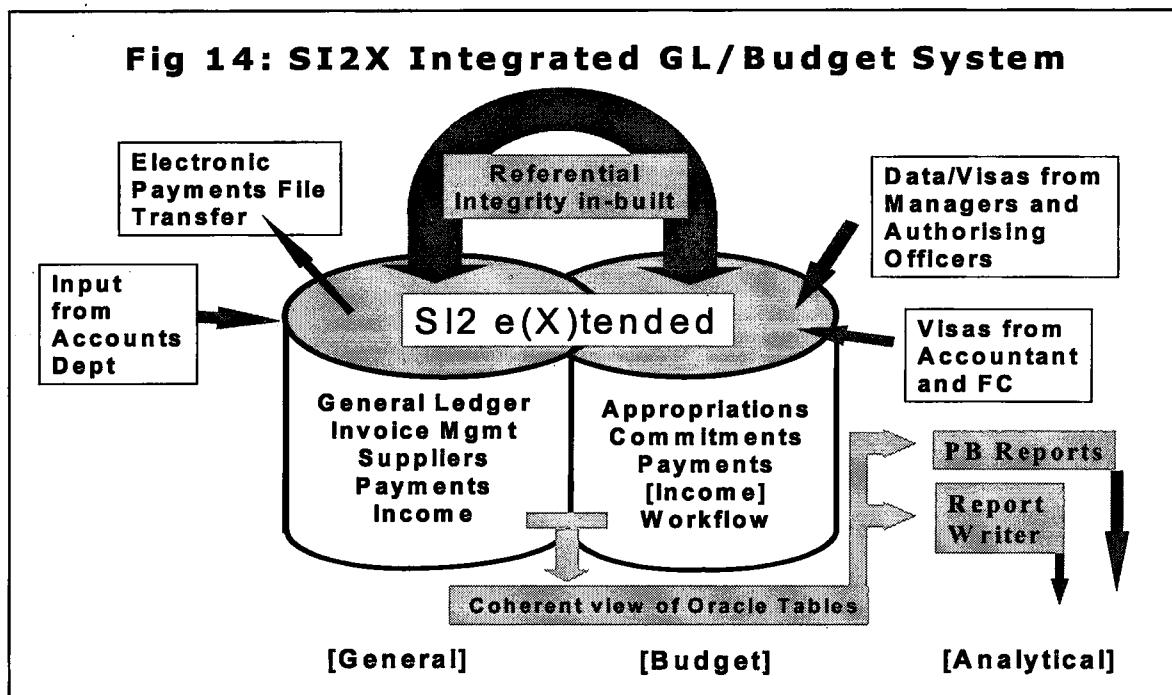
This complimentary component of the Financial system is currently in the specification stage. In the problem statement prepared by the user department they identified various critical factors that could not be properly addressed by the current DOS-based Belgian accounting system 'Cubic'. These included exchange rate approximations (Italian Lira require more decimal points in numeric field definitions), security, performance and real time updates (the database engine is dBase used in file-sharing mode). The subsequent Pre-analysis has identified two alternative options:

***Option 1***

This is based on the SINCOM2 architectural principles outlined in Figs 3 and 4 above and involves the bolting on of a commercial General Ledger, Payments and Bank Reconciliation system. In the Call for Tender launched in '96 the main contenders for this system were 'SAP/R3' and 'Oracle Financials'. Both these high-end systems can run on an Oracle DB (SAP with a proprietary implementation) yet both require large enterprise system implementation and offer a plethora of functions that would be redundant in the small scale and limited scope of Agency general accounting operations. Furthermore, the architecture depends on a bridge with SI2 and even though we have successfully isolated the workflow from this potential weak point, considerable investment would be required to develop the inter-linking software module with its attendant high risks.

## Option 2

This is the simpler and favoured approach and is outlined in Fig. 14 below:



The basic concept is that of an internally integrated system (SI2X) in which all data lies within one single database management system not only ensuring coherence and integrity but also enabling the availability of all the tables internally under the same security umbrella. The 'X' plug-in very much depends on agreements with the SI2 architects both on stability of database structures and the development changes for new Agency versions of SI2. Workflow placement no longer becomes an issue and users would be able to navigate to all financial areas without switching systems or application interfaces. It is our aim to eventually allow all audit and control inspections to be made remotely through one easy-to-use and secure interface and this architecture fits this objective. Furthermore, this bespoke development will concentrate solely on the limited functionality required bringing gains in development time, performance and maintenance.

### □ Adaption of SI2 for external budgets (1Q99)

A particular feature of ETF's operation is to manage operational funds on behalf of the Commission which are not part of its own official budget. These external Tacis and Phare funds are managed according to different sets of business rules. It is an objective within the global financial system to harmonise all financial management operations and utilise a common set of tools to carry out these tasks. SI2 will be extended to underpin this aim.

### □ A Cost Analysis system (3Q99)

Cost benefit analyses are very much in demand as basic tools to assist in management priority setting and decision making. Multi-dimensional cost centre taxonomies, budget and cash pipeline monitors, and powerful, flexible financial query and reporting tools are some of the features envisaged to be in the specifications of this system.

## **Budget Planning System (4Q99)**

With the aid of historical information within SI2 and cost analysis models, an automated budgetary planning model is envisaged. This system will provide controls and projections on future budget line settings and project plans.

## **System Integration - Operations and Human Resources**

Once the above set of building blocks is in place, it will be with marginal cost that we can derive integrated system benefits. Examples will include payments of wages, pensions and mission costs (linked to budget planning models, SI2X and human resource management systems), optimised cash flow income payments from the Commission, streamlined stage payments to clients, and long-term planning models.

## **CONCLUSION**

SI2 is currently in test or operation at the Agencies in TURIN, COPENHAGEN and LONDON and in recent Agency Directors' meetings the consensus has been that it will be used as a generic budgetary management system in most Agencies. Each Agency not only operates according to different business rules but will also use different informatics architectures and organisational procedures. This heterogeneous situation will not allow the model used at Turin to be simply rolled out at the other sites, moreover, there are still no tools available for automatic version upgrade, budget tree loading or workflow definition. However, the SI2 development team based at DGXIX have now planned an Agency specific implementation for 1Q99 linked with a concrete Service Level Agreement (SLA) that augurs well for the long term development.

Even though the SI2 product was not originally designed as a stand-alone, small-scale system, it has been demonstrated that it offers the potential to be the core engine for a fully electronic and integrated Contracts Management, Budget, General and Analytical accounting system.

**Jeff HARRIS**  
**Head of Computer Systems Department**  
**EUROPEAN TRAINING FOUNDATION**

# E-Mail Security

Security is a term that is currently very much discussed within the Commission. The DI is often asked global questions, like "Is the E-Mail service secure?" An honest answer to such a general question must be "yes and no, depending on which aspect of security is addressed".

Security is certainly not only a technical issue. It is not even primarily a technical one. Technology is just a tool to be employed in order to make systems secure. With E-Mail, a number of technical aspects pertain to the overall concept of security.

There is first of all the reliability of the service. INSEM 2 messages that have been sent also arrive at their destination. We are very confident that no messages are lost within the boundaries of the Commission. Certainly, this guarantee does not apply to messages passed on to the Internet.

There is also the availability of the E-Mail service to the end users. The average availability of the E-Mail servers has risen since the implementation of INSEM 2 to well above 99% during working hours. Of course, there can be other problems that may block the access to the server, such as PC or network problems.

The INSEM 2 delivery and receipt notifications give the end users, upon request, message trace functions. Although, there is no formal guarantee of the so-called 'non-repudiation of origin' (the guarantee that the originator has really sent the message) INSEM 2 allows the service management a very reliable tracing of messages to their origin. Its journal files are very comprehensive and not easy to tinker with.

In terms of access security, for example the access to another person's mailbox, the INSEM 2 service offers a security level similar to that of other informatics services at

the Commission. It uses (encrypted) password protection of message stores and the usual level of access protection to servers. The more advanced C2 security level protection of the servers is technically feasible and has been piloted in the Commission but it requires a higher workload for the E-Mail administrator in the DGs and is therefore not used in the operational service. Security loopholes that existed in INSEM 2 because of the file sharing mechanisms Route400 used in pre-NTP versions have effectively been closed or are under control.

The natural limits of the E-Mail security are, however, quite evident by the fact that messages are stored in an unencrypted form on the servers and are transmitted in clear over the network. There is therefore always a certain risk of intrusion into the servers and eavesdropping on the network through malicious, technically skilled attackers.

The conclusion is therefore that the INSEM 2 E-Mail service of the Commission offers a security level that is sufficient for the normal communication but NOT for classified information according to the Commission decision C(94) 3282, dated 30<sup>th</sup> of November 1994.

Please be aware that the 'confidential' flag to a message in Route400 is only an indication, but by no means does it give additional message protection. This flag is defined in the X.400 standard on which Route400 is based.

The Commission has now launched the public tender INSEM 3 in which very far reaching and state-of-the-art security features and functions are requested. The most known are digital signatures and message encryption. They will be tightly integrated into the E-Mail user functions.

Until the arrival of an operational INSEM 3 service, the Commission wants to apply higher security already in INSEM 2 within some sensitive procedures that rely on message exchange. Mr. Trojan and the IRMB have explicitly requested the project.

The DI in co-operation with the Security Office, the General Secretariat and DG IV has defined the "Secure E-Mail" project in which the encrypted transfer of messages between a limited group of E-Mail users will be piloted. This also allows the Commission to gain practical experience with strong security tools and particularly with the services to be established around the encryption of E-Mail.

The pilot phase of the project is a necessary step to a more general usage of encryption and digital signatures within the Commission. The Commission's Security Office has selected the encryption and digital signatures technology from the company UTI-MACO, a well-recognized specialist company in cryptography. UTI-MACO has created an "add-on tool" to Route400. The UTI-MACO products implement the latest asymmetric key technology. As a European company, UTI-MACO is not subject to the American export restrictions of security technology.

Beside the purely technical implementation of the encryption and digital signature, the Security Office of the Commission is currently installing a key management service. This service will later support also other services, such as SINCOM 2 and secure Web based access.

E-Mail security with encryption can, however, only cover the immediate transport of messages and documents. There are also front-end and back-end processes to E-Mail involved in the document exchange between communication partners. A high security level in E-Mail is not much worth if the confidential document during its preparation phase is stored on a shared disk or archived by the recipient under less secure conditions. These aspects, among others, have to be dealt with by organisational guidelines currently in preparation by the Security Office.

The strong security tools to be implemented on top of INSEM 2 require intensive support. The pilot project has therefore been restricted to about 100 E-Mail users. If the pilot is successful, the number of users will in the subsequent operational phase be enlarged to about 500.

The experience of the pilot project will be reused in the INSEM 3 context. The tools of UTI-MACO as well as similar products have the necessary technical interfaces to be integrated into the mainstream E-Mail products currently on the market.

### **The E-Mail Service**

# A directory for the European Institutions

In the framework of the IDA program that is administered by DG III, the DI has implemented an inter-institutional directory system based on the X.500 and LDAP standards.

The following European Institutions participate:

- European Commission
- European Council
- Court of Auditors
- Economic and Social Committee
- Committee of the Regions

Each of these institutions operates a small NT server with the product DIR.X of SNI installed as directory server. The data content of each directory is maintained by the participating institution. The servers are interconnected to allow access to the data of the other servers. Technically it is a distributed directory.

The address data on the servers is more comprehensive than the data available in Route400 and any field can be searched. However, the search performance is not yet optimised and there is no direct connection with Route400 so that X.400 and SMTP addresses need to be copied with cut and past into Route400. The user interface is based on HTTP. It should be easy to use.

The implemented directory system is in the state of a "functioning pilot". It can be used and the data on it is updated once per week (Route400 is updated daily).

The directory is accessible under the following address:

<http://158.169.9.31:21108/>

Comments on the directory are very welcome.

The directory should also be seen in the light of the future development of E-Mail and other services that rely on address data. It will be reused (perhaps not in the current implementation) in the migration to INSEM 3 and will be extended by other functions, e.g. key management. The future INSEM 3 product will not have a proprietary directory but will use the now well established directory standards of X.500 and LDAP.

G. SCHÄFER  
DI / STD

# Technical framework for Internet / Intranet applications

## 1. Introduction

### 1.1. Objectives

The objective of this document is to provide a structured view on the architecture of internet/intranet applications by showing the various technologies involved, in order to give a better understanding of existing solutions.

This technical framework will lead to the definition of the different architectural components of such applications, providing a grid for the positioning and evaluation of internet/intranet technologies and tools.

### 1.2. Domains

Internet technologies can be used for various functions:

- Dissemination of information (Web, ...)
- Collaboration (Chat, Newsgroups, conferencing, e-mail, ...)
- Transaction Processing (Web applications, n-tiers Client/Server applications)

In our analysis, we will mainly focus on the third point: creation of Client/Server applications using Internet technologies. We will also touch dissemination aspects when back-end connections to databases are involved.

### 1.3. Steps

In this document, we will move from a general view to the details:

- First we will present the overall architecture of internet applications,
- Then we will present the technologies used in the different elements of this architecture.

### 1.4. Conventions

In order to avoid unnecessary repetition we will use the term “internet” for the global Internet network, for our private local intranet, or for a virtual intranet using the global Internet (“extranet”), unless otherwise specified. When needed, we will explicitly use the terms Internet, intranet and extranet to express the differences.

## 2. Architectures of internet applications

### 2.1. General Architecture

The overall architecture of an internet application is that of a distributed ("n-tiers") application. Only the client part is located in the client machine, and it is connected to distributed objects and data via internet technologies, more particularly Web technologies.

This is outlined in the schema hereafter:

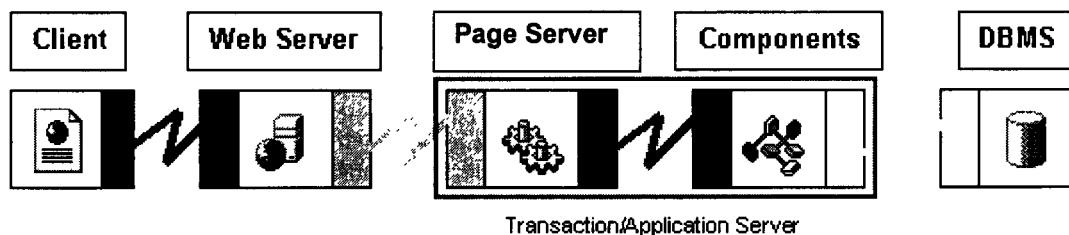
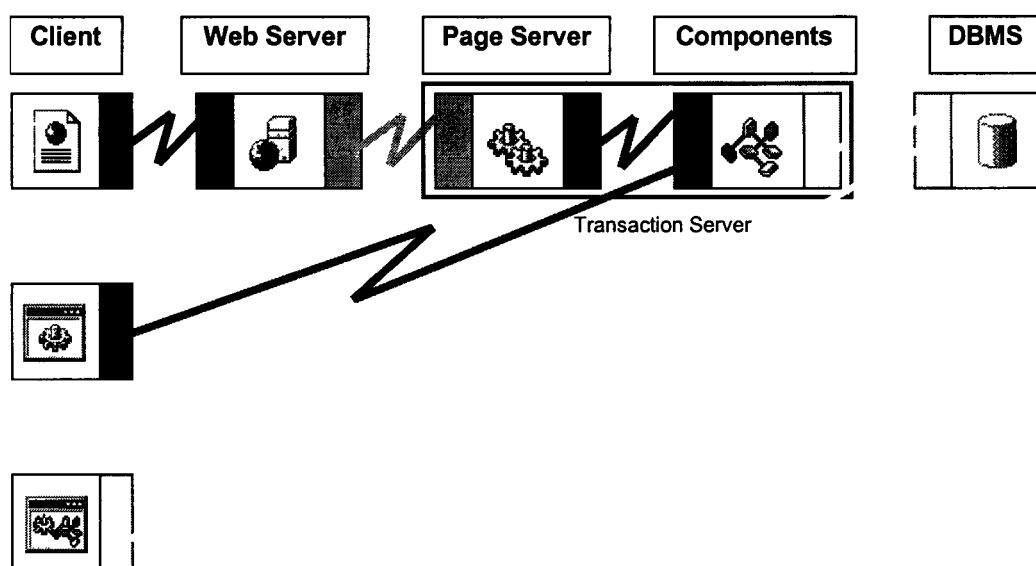


Figure 1 Architecture of a Web application

This architecture also allows the coexistence of classical clients connected to the middle-tiers or the DBMS, as represented in the following graph:



<b>Internet Protocols</b>	HTTP, ...
<b>Web Interfaces</b>	CGI, ISAPI, NSAPI, ...
<b>Component Middleware</b>	DCOM, CORBA, RMI, ...
<b>DBMS Middleware</b>	ODBC, JDBC, OLEDB, Native drivers, ...

Figure 2: Global architecture

## **2.2. Components of the architecture**

### **2.2.1.Client**

The client is the part of the user interface that presents the application functionality to the user. In Web applications, the client is essentially a browser, capable of displaying hypertext pages (in HTML), and to navigate to other pages by submitting HTTP requests to a Web server.

HTML defines simple interfaces, but they can be enhanced thanks to different techniques, that we will examine later.

### **2.2.2. Web Server**

The Web server is the HTTP server. It listens for HTTP requests on the network, and sends the resulting HTML page back to the client.

The pages can be either read from a simple file, or they can be built or customised on the fly by an application Page server, via a standard interface.

### **2.2.3 Page Server**

The page server allows dynamic creation of an HTML page. The page server receives a request with parameters, performs some logic and returns the result formatted in HTML.

The page server can range from a simple script to a complete service, which uses standard components and databases.

The page server is in fact the user interface builder, and it should contain as little business logic as possible. Where complicated functionality is required, the page server should connect to reusable components, containing the business logic, via a standard interface and reformat their output in a suitable HTML form.

### **2.2.4.Components**

The components of the application contain the business logic. They should have a standard interface, if possible, to allow reuse from different clients. For improved resource management, they should preferably run in the context of an application server. Components are interconnected via standard middleware.

Components use a DBMS to ensure the persistence of the information and the storage of data.

### **2.2.5. DBMS**

The database management system is a classical element in this architecture. Its main role is to store data, but it can also host business logic in stored procedures, which can be activated from components or from a page server.

The middleware to access the DBMS is also classical, but some additions are emerging to support new technologies.

### **3. Technologies used**

The various technologies used to implement internet solutions are enumerated and briefly explained hereafter, classified by their usage. Some technologies are applicable at different levels level of the architecture (Java for example), their specific use for each level will be explained.

#### **3.1. Client**

The client part of an internet application can be a Web browser, a classical 2-tier Client/Server client or a Java application.

A Web browser sends requests to Web servers via HTTP, and displays the HTML returned.

The HTML client can be enhanced using client-side scripts and embedded visual components.

##### **3.1.1. HTML**

HTML (HyperText Mark-up Language) uses tags to specify elements to be displayed and the way to display them. HTML is a standard that the W3C (World-Wide-Web Consortium) manages in collaboration with the main industrial vendors. The most widespread version is HTML 3.2, although some elements of the recently adopted HTML 4.0 are already present in "4<sup>th</sup> generation" browsers.

Style-sheets, implemented in the CSL standard (Cascaded Style Sheets), can be used to ensure a uniform visual aspect of pages.

##### **3.1.2. Scripting language: JavaScript, JScript, VBScript, ECMAScript**

Scripting languages allow the execution of logic in the browser. They are particularly helpful in order to process validations and calculations on the client, without having to contact the server. Events triggered in the different elements in a page can activate functions written in scripting languages.

The most common scripting languages supported by browsers are:

- JavaScript, defined by Netscape for its browser, not to be confused with Java.
- JScript, Microsoft's implementation of JavaScript.
- VBScript, usable only in Microsoft's Internet Explorer browser.

Plug-ins and add-ons to browsers allow them to run other scripting languages, such as Perl. ECMAScript is the new standard to which Microsoft and Netscape are now adhering. Microsoft JScript 3.0 and Netscape JavaScript 1.2 are ECMAScript compatible.

##### **3.1.3. MIME, Helper applications, Plug-ins**

The Multi-Purpose Internet Mail Extension is used to specify the type of elements embedded in an HTML page. The type will be recognised by the browser as supported by it, by helper applications or by plug-ins or as not supported.

On the browser, the user must configure the relation between the MIME type and the application capable of activating the element. This allows, for example, to launch a particular viewer or editor for text documents or spreadsheets, or to view video or special types of files.

A helper application is an application that will be launched outside the window space of the browser in order to manipulate the embedded element. Plug-ins are additions to the browser that can be considered as part of it and use the browser window to manipulate the embedded element.

### 3.1.4. Java applets, Java beans

A Java applet is a small application written in Java that is displayed in the browser window as part of the HTML page in which it is embedded. Applets are executed on the client, and they allow special representation of data. Java applets are real object-oriented multithreaded client applications, which can be downloaded.

A Java virtual machine must be present in the browser in order to be able to execute an applet (run-time environment). This virtual machine interprets Java byte-code downloaded to the browser. To increase performance, this byte-code can be compiled into native code by a Just-In-Time Java compiler.

The applet runs in a safe environment (“sandbox”): it cannot access the resources of the machine (files, disks...) and it can only start connections to the server from where it was downloaded. This can of course limit the functionality offered by the application. A standalone Java client application installed outside the browser and activated directly in the Virtual Machine does not have these limitations.

Java Beans are Java classes in byte-code format that can be reused. There are mechanisms to allow the discovery of properties and methods in a the class (“introspection”). A bean can also contain specific structure information.

### 3.1.5. ActiveX documents, ActiveX controls

ActiveX documents are elements displayed in the browser with the help of a local application (that can be downloaded automatically). These elements can compose the user interface of an application (e.g. a form, with fields and buttons). They use the browser window.

ActiveX controls can be used in HTML pages to implement special behaviour, replace or extend other controls, validate data or do calculations that must be executed on the client.

ActiveX controls are downloaded and installed in the client machine, where they can access the full functionality of the platform. They are digitally signed, so the user can refuse their installation if the company that created them is not trustworthy.

ActiveX controls can be created in Java.

### 3.1.6. DHTML

Dynamic HTML allows scripting languages to access the HTML tags and to modify the page on the client, without having to send a request to the server and wait for the answer. This can be used for filtering data, changing its order or to handle simple events (changing the

appearance of a text when the mouse pointer passes over it, switching pictures on the page, etc.).

The scripting language and, more importantly, the document object model (the elements accessible by program) vary between browsers.

### 3.1.7. XML

XML is a subset of SGML. An XML document can be embedded in an HTML page to hold a non-visual representation of text and data. The information it contains can be transformed dynamically into HTML for display. XML 1.0 is the standard version approved by the W3C.

XML allows, for example, applications to download a set of records with a page, which can be displayed in different orders, filtered locally, etc.

XSL (XML Style Sheet) is the description of style sheets in XML, and it will replace CSL in the long term. XLL is the description of links in XML. The use of XML, XSL and XLL together is likely to replace HTML in the long run.

## 3.2. Web Server

### 3.2.1. HTTP Server

The HTTP server is software that listens for HTTP requests on specific TCP/IP ports, and that satisfies these requests by returning HTML back to the client.

The return item is specified by the URL. It can specify a simple HTML file, or refer to an application that generates the result.

### 3.2.2. HTTP

HTTP is the **HyperText Transfer Protocol**. This connectionless protocol responds to simple requests (GET, PUT, POST and less frequently HEAD, TRACE, OPTIONS, DELETE) to send or receive data. The answer contains a return code with the success/failure of the operation and the data requested, generally an HTML page with hyperlinks and references to embedded objects (images, applets, etc.). The current version is HTTP 1.1.

### 3.2.3. SSL

SSL is a protocol that provides public-key based mutual authentication, message integrity and confidentiality. The current version is 3.0.

SSL adds a security layer on top of a connection-oriented protocol. On connection, it performs a handshake between the two nodes. Once the security handshake is complete, the protocol encrypts and authenticates data sent from the local host and decrypts and

verifies data received from the remote host. This is done transparently for the application using the protocol.

### 3.2.4. HTTPS

HTTPS is the HTTP protocol using SSL to establish the connection. Both the browser and the server must support SSL.

## 3.3. Page Server

The page server is an application that accepts requests from an HTTP server and returns HTML. It generally connects to different components of the application (service components, DBMS) and performs some processing. The page server is linked to the HTTP server via one of the interfaces presented hereafter. Although it could be developed in a compiled language, it is often implemented using scripting languages.

### 3.3.1. Interfaces

#### 3.3.1.1. CGI

CGI stands for the **Common Gateway Interface**. A CGI application receives its parameters from environment variables, reads in its input from the standard input and returns the resulting HTML through the standard output. This offers a maximum of flexibility in the development of the application, because all platforms and almost all languages are able to comply with these three minimum requirements. However, a process must be initiated for every request, and then cleaned, so it should only be used for really quick and relatively simple applications.

#### 3.3.1.2. ISAPI

The **Internet Server API (Application Programming Interface)** is proprietary to the Microsoft Internet Information Server. It allows the development of extensions and filters as dynamic link libraries. Performance is improved because dlls are loaded in the context of the calling process (the Web server) and they may be available in memory all the time.

#### 3.3.1.3. NSAPI

The **Netscape Server API** is proprietary to Netscape servers. It interfaces with server applications without starting a process each time.

### 3.3.2. Scripting languages

#### 3.3.2.1. Perl

Perl is the **Practical Extraction and Report Language**. It is a powerful scripting language that combines features of C, sed, awk, and sh. It has advanced functions for string handling and it is available on Unix as well as on Win32. Although it is suitable for rapid extractions, reports and simple forms, it is not adapted to complex transactional applications.

#### 3.3.2.2. JavaScript, VBScript, DynaScript, ...

Server side scripting can be used to dynamically create an HTML page. Depending on the product used as Page Server, different scripting languages are available.

### 3.3.3. Examples of solutions

#### 3.3.3.1. ASP, LiveWire, LiveHTML

Active Server Pages is an ISAPI extension to Microsoft IIS that allows the interpretation of HTML pages containing scripts. The scripting language is VBScript by default, but other scripting languages (JScript, Perl...) are possible. The script in the ASP page creates COM components, which implement the business logic. The result returned by the component function calls is used to complete the page.

LiveWire is Netscape's implementation of server-side scripting, in which JavaScript is included in HTML pages to be executed in the server.

LiveHTML is Oracle's implementation of the standard Server Side Includes functionality defined by the NCSA (National Centre for Supercomputing Applications). LiveHTML enables the inclusion of dynamic content in HTML by using special tags that are replaced by the interpreter for the results of the execution of a script, the contents of a variable, etc.

#### 3.3.3.2. Servlets

Servlets are Java applications running in the server. They receive requests, create and call other Java classes and return a result in HTML. They are generally called via the interface of the Web server (ISAPI, NSAPI)

## 3.4. Components

### 3.4.1. COM/DCOM

COM (**C**omponent **O**bject **M**odel) is the component model of Microsoft. DCOM (**D**istributed COM) accomplishes the connection of components across a network. OLE (**O**bject **L**inking and **E**mbedding) is the usage of COM between document applications. ActiveX, after some discussion, concerns only light visual COM components.

COM objects can be implemented with any tool or language (VB, Delphi, PowerBuilder, C++, Java, etc.). They are instantiated and called by the Page Server. COM components can be instantiated in the context of a transaction server in order to protect resources, manage pools of components and manage transactions.

### 3.4.2. CORBA

The **C**ommon **O**bject **R**equest **B**roker **A**rchitecture is the Open Management Group component model, where ORBs (Object Request Brokers) connect the different components. An ORB is the middleware that establishes the client-server relationship between objects.

CORBA provides services (naming, life-cycle management, security, transaction handling, event notification, etc.) and facilities (UI, information, task management).

### **3.4.3. Java**

Java is an object-oriented language very similar to C++, but it does not use pointers, or allow multiple inheritance. It is not compiled into native code, but to Java Byte Code, which is pseudo-code executed by the Java Virtual Machine. Java provides standard classes in the Java Development Kit.

JavaBeans is the component model for Java. JavaBeans are Java classes distributed in byte code, with a determined naming convention for the different methods. They allow introspection (automatic discovery of the public interface) by tools.

Java classes can communicate via Java RMI (Remote Method Invocation).

Version 1.2 of the Java JDK is in preparation. Version 1.1 is widely used by developers and tools, since it implements the JavaBean specification, and version 1.02 is widely spread in browsers.

## **3.5. DBMS**

Middleware is used to connect to databases and to "legacy" systems. Database vendors provide proprietary drivers for their particular product, but there are other solutions to allow interrogation of databases independently of their vendor or implementation.

### **3.5.1. ODBC**

Open Database Connectivity is a middleware, created by Microsoft, for applications to use the same common methods to talk to different databases. The application always calls ODBC, which depending on the data source specification translates the ODBC calls into native calls.

### **3.5.2. JDBC**

Java Database Connectivity follows the same concept as ODBC to allow a Java application to connect to various databases. The JDBC driver can be fully developed in Java. It can connect directly to the server or it can call native drivers installed on the running platform. A bridge to ODBC is available if no JDBC driver for a database can be found.

### **3.5.3. OLEDB**

OLEDB is an object model allowing an application to call any data source with the same interface. Data sources are not limited to SQL databases: text, file system, active directory, messaging systems, etc. can be used to create heterogeneous queries.



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  - ou d'une date (p.e. 27.11.1992)
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M. John POWER  
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**Friedrich DÖLL**  
**IRM de l'OPOCE**

# The “Bourse des Rapports SIC” will be soon on EUROPAtplus

Finally “Bourse des Rapports SIC” is ready and will soon be available on EUROPAtplus under the site of DI/SSI. The “Bourse” is a forum for the DGs to directly exchange reports created by them for the SICs. Here you can find reports that are not in the standard report library of the SICs. The “Bourse” is interactive in the way that you can freely view and download the reports as well as sending them to us (Support SIC) to publish them on the site. It also gives hints on how to prepare reports to be published and how to integrate downloaded reports into the SICs.

The “Bourse” is another effort to integrate users more directly into the process of improvement of the SICs. It comes along with the newly created “user groups”, where we discuss the direction of the future development of the SICs, and the already well accepted “user forum”.

To find the “Bourse”, simply go to the home page of SSI <http://www.cc.cec/di/ssi/ssi.htm> in the i<sup>2</sup> service of EUROPAtplus and follow the links. For more general information about the SICs go to <http://www.cc.cec/di/ssi/newsic.htm>. We will inform the IRMs officially by letter when the “Bourse” is accessible on the net, and give the exact URL.

The screenshot shows a Netscape browser window with the title bar "Bourse Echange des Rapports SIC - Netscape". The menu bar includes File, Edit, View, Go, Communicator, and Help. The toolbar below has icons for Back, Forward, Reload, Home, Search, Guide, Print, Security, and Stop. The main content area displays the heading "Bourse d'Echange des Rapports SIC" in bold black font, followed by a small logo of two stylized figures. Below the heading is a paragraph of text: "The reports available on this page are developed and provided by different DGs. They are not tested by the DI. New reports are marked with NEW. If you would like to evaluate the output of a desired report please click on Show Report, if you would like to see a functional and technical description of the report click on Description or if you would like to download the chosen report click on Download Report. Click here if you would like to know how to implement a report in a SIC". At the bottom of this text block are two warning icons (exclamation marks) flanking the text "The content of this page depends on YOU!". Below this is a message: "You are always welcome to send us any report for any SIC developed in your DG. Please read the following Instructions. You can send us as well your ideas of reports which are not yet on this page but which you want to implement. For more informations click on new reports to be developed". At the very bottom of the page is a link "Here you go to the reports". The status bar at the bottom of the browser window shows "Document: Done".

## How to integrate a report from this page in the SIC

You can preview all the reports on the page with the help of the link [Show Report]. If you are more interested you can also read a functional and technical description by the developer of the report. To download a desired report for one of the SICs you only have click on the link [Download Report]. If you have questions, the link [Contact] opens e-mail to the person responsible for designing the report.

An example:

**SIC-MISSION:**

NEW Rapport statistique des dépenses sur les trois dernières années, trié par mois et lignes de budget:

[Show Report](#)

[Functional and Technical Description](#)

[Download Report](#)

[Contact](#)

It is important to know that all the reports on this page are available only in PowerBuilder source code! This means that only the local IT help desk (or DI) can integrate a desired report into the SIC environment.

You must also have installed PowerBuilder (V4.05 or V5.02). All the objects necessary for the report are assembled in a library with the extension PBL. All you need to do is export the objects into your existing library XYZ\_EXT.PBL ('XYZ' stands here for the name of a specific SIC, ex. PER, MIS or GCE). Then create a new dynamic library (XYZ\_EXT.PBD). Using SIC-SECURITE/ADMINISTRATION you can make the new report available for a SIC.

**New reports to be developed**

There are also other reports which cannot be found on this page. The "Bourse" gives you the possibility to publish your ideas as well as to see some examples of the ideas of other DGs. The publishing DG wants to find such a report, which may be already developed elsewhere (but not yet published on this page) or it wants to share the development with other DGs. The goal is to reduce costs and use of resources.

You can publish scans of reports in MS ACCESS, EXCEL, WORD or other applications. A functional description should be added and should describe as completely as possible what you're looking for. On the other hand you may reply to a request if you:

- have already developed such a report in your DG
- wish to participate in the development
- are also interested in such a report but you don't have the resources for a development

Of course we are always available to give you any technical assistance for your development projects.

**How to publish a report to on this page**

You are always welcome to send us any report for any SIC developed in your DG. The content of this page depends on your participation. If you would like to publish a report, please give a brief description of the report and send the following three files:

- One source file for each report with all the necessary objects

- At least one (or more) print screens of the output of each report
- A functional and technical description for each report



Send the reports you wish to publish bye e-mail to Uwe KOSA (Support SIC à BXL).

### **How to prepare the report for this site**

If you want to publish your reports you may have to do some extra work. First of all you should copy all the PowerBuilder objects for one report to an extra PowerBuilder sourcecode library. To avoid confusion, all the PowerBuilder objects in the library should follow a certain naming convention:

[OBJECT TYPE] \_ [OBJECT NAME] \_ [NUMBER DG]

The functional and technical description should specify what is necessary to implement the report in order to avoid the developer being bothered by unnecessary questions. A functional section should contain a short description of what the report shows and how to use it. An implementation section should contain all the information necessary to announce the new report in the SIC environment. A technical section should give some information about functional and technical restrictions, such as the use of tables which are not in the standard "common database" but private to a DG. We help you with this and provide "how to do" instructions on the site, and a form for the technical description which you can fill in easily.

***What remains to say is that we hope you will participate in great numbers to make the "Bourse des Rapports SIC" as successful as the other offers of the support SIC.***

**U. KOSA  
DI / SSI**

# Production et Visualisation de documents PDF

Ce document présente la suite Adobe Acrobat version 3.01 et donne quelques conseils quant à son utilisation.

La suite logicielle d'Adobe, Acrobat 3.01, offre des outils qui permettent:

- la conversion des documents (Word, WordPerfect, Excel,...) vers des documents non révisables en format connu PDF
- la visualisation, l'impression et la modification des documents obtenus sur différentes plates-formes.

## PRÉSENTATION DU FORMAT PDF

PDF est l'abréviation de Portable Document Format. PDF est utilisé comme format standard pour la diffusion de documents, que l'on peut visualiser et imprimer sur différentes plates-formes avec Acrobat Reader. PDF garantit une représentation fidèle des documents originaux (Word, WordPerfect, Excel,...).

Les avantages du format PDF sont que les documents PDF produits:

- ils sont visuellement identiques aux documents originaux avec l'avantage de devenir aussi des fichiers généralement de plus petite taille tout en respectant la mise en page, les graphiques et les images contenus dans le document original.
- ils peuvent être visualisés ou imprimés (à l'aide du logiciel gratuit Acrobat Reader) sur différents systèmes d'exploitation sans dépendance du système d'exploitation, ni de l'application utilisés lors de la création du document original.

## DESCRIPTION DES COMPOSANTS

Les 4 Composants de la suite Acrobat 3.01:

- Acrobat Reader, pour visualiser et imprimer les fichiers PDF
- Acrobat Distiller, pour créer des fichiers PDF à partir de documents originaux
- Acrobat Exchange, pour visualiser, modifier, optimiser (pour la publication via Internet) et protéger les documents PDF
- Acrobat Writer, pour créer des fichiers PDF en convertissant les commandes GDI et QuickDraw représentant graphiquement les documents originaux en leurs équivalents en PDF.

## Composants utiles à rajouter

Afin de faciliter la création de fichiers PDF, il est conseillé d'installer les outils suivants:

- Adobe Postscript Printer Driver PS5.0 pour Windows NT 4.0, afin d'obtenir une meilleure conversion des documents multilingues, grecs en particulier.
- Adobe PDFMaker for Word 97, afin de conserver dans les fichiers PDF résultant de la conversion de documents Word 97, des qualités dynamiques telles les hyperlinks, liens entre sommaire et chapitre, etc.

## SITUATION CONTRACTUELLE

Acrobat Reader est un logiciel gratuit, il peut donc être installé sur tous les PC et permettre aux utilisateurs de visualiser et d'imprimer les fichiers PDF.

Une licence est nécessaire pour l'installation d'Acrobat Distiller, Acrobat Exchange ou Acrobat Writer. Cette licence permet d'utiliser indifféremment les trois outils.

Acrobat PDFMaker, qui permet de créer à partir de Word 97 des documents PDF, est gratuit mais nécessite l'installation préalable d'Acrobat Distiller 3.01 ou d'Acrobat Writer 3.02.

## **RECOMMANDATION POUR LE BON USAGE DE LA SUITE ACROBAT**

### **Version du format PDF à utiliser**

Adobe Acrobat 3.01 est associé à un nouveau format: PDF 3.0. Il diffère de l'ancien format PDF 2.1 principalement par de nouvelles méthodes de compression.

Ainsi Acrobat Reader 2.1 ne peut pas lire un fichier en format PDF 3.0 alors que Acrobat Reader 3.01 reconnaît un fichier en format PDF 2.1.

Afin de garantir la compatibilité, il est cependant possible dans Acrobat Distiller 3.01 ou Acrobat Writer 3.02 de créer les nouveaux documents PDF dans l'ancien format PDF 2.1.

### **Création des documents**

Il est conseillé d'utiliser Acrobat Distiller (et non Acrobat Writer) pour créer les documents PDF afin de garantir une équivalence maximale entre la copie PDF et le document original.

Dans Word 97, il est préconisé d'utiliser PDFMaker afin de conserver dans les documents PDF créés certaines propriétés des documents Word originaux (comme les hyperlinks) après la conversion.

### **Protection des documents**

Acrobat Exchange permet de protéger un document contre la lecture, l'impression, la

modification, etc... avec un mot de passe.

### **Optimisation des documents PDF en vue de leur diffusion via Internet**

Il est fortement conseillé d'optimiser les documents PDF avec Adobe Exchange afin de faciliter leur consultation via Internet.

L'optimisation consiste à sauvegarder le document en le débarrassant de toute duplication inutile d'images, de textes ou de traits et de permettre son téléchargement page par page (sans attendre la réception complète du document).

### **Visualisation des documents**

Il est préconisé d'installer Acrobat Reader (logiciel gratuit) pour les utilisateurs qui ne font que visualiser et imprimer des documents PDF.

### **Modification des documents**

Acrobat Exchange, permet de visualiser et d'imprimer, mais aussi de modifier, et d'extraire/insérer des pages et du texte d'autres documents PDF.

### **Installation**

Les scripts permettant l'installation en mode silencieux des différentes applications et utilitaires présentés ci-dessus ont été développés par DI-STB et sont à votre disposition sur Softline.

Il est fortement conseillé de lire la documentation relative aux différents outils Acrobat avant de procéder à l'installation des produits.

La documentation, les scripts d'installation sont disponibles sur Softline et sont présentés dans l'annexe ci-dessous.

## ANNEXE

Produit – Version	Script d'installation	Remarques
Acrobat Reader version 3.01	<a href="http://www.cc.cec/softline/ntp/offtools/offtools.htm">http://www.cc.cec/softline/ ntp/offtools/offtools.htm</a>	Outil gratuit Disponible pour Windows 3.1 Windows 95 et Windows NT
Acrobat Distiller version 3.01	<a href="http://www.cc.cec/softline/ntp/offtools/offtools.htm">http://www.cc.cec/softline/ ntp/offtools/offtools.htm</a>	Il conseillé d'utiliser Adobe PS5.0 et PDFMaker sous Windows NT Disponible pour Windows 95 et Windows NT
Acrobat Exchange version 3.01	<a href="http://www.cc.cec/softline/ntp/offtools/offtools.htm">http://www.cc.cec/softline/ ntp/offtools/offtools.htm</a>	Disponible pour Windows 95 et Windows NT
Acrobat Writer version 3.02	<a href="http://www.cc.cec/softline/ntp/offtools/offtools.htm">http://www.cc.cec/softline/ ntp/offtools/offtools.htm</a>	Utilisation déconseillée sauf pour des PC disposant de moins de 24 Mb de Ram Disponible pour Windows 95 et Windows NT

## INFORMATIONS COMPLÉMENTAIRES

### Documentations supplémentaires

Comment améliorer la diffusion de documents PDF via Internet,

<http://www.cc.cec/softline/ntp/offtools/acrordr/pdfintra.pdf>.

### Personnes à contacter

Pour avoir des informations complémentaires sur la suite Adobe Acrobat, veuillez contacter :

Luis ROSETY (34995) ou Franck LAMY DI-STB.

**Unité Support Technique et Bureautique  
Section Logiciels Bureautique - Multilinguisme**

## DIRECTION INFORMATIQUE

Directeur Général  
Directeur  
Conseiller  
Assistant

C. FLESCH (\*)  
F. de ESTEBAN  
P. MARCELLI  
J.L. SION

Gestion des ressources internes

M. O'LEARY

### COORDINATION DES ORGANISATIONS LOCALES

- |   |                       |
|---|-----------------------|
| 1. Relations utilisateurs et cohérence informatique<br>- Chef de secteur "Relations Utilisateurs" | D. KÖNIG<br>J. LAVADO |
| 2. Coordination des ressources humaines et budgétaires (schémas directeurs)                       | P. BERTRAND           |

### SERVICES OPERATIONNELS

- |   |                                |
|---|--------------------------------|
| 3. Support des systèmes d'information<br>Chef adjoint d'unité | D. DEASY<br>-----              |
| 4. Support logistique et formation<br>Chef adjoint d'unité    | W. BAROSCH<br>F. PELTGEN       |
| 5. Support technique et bureautique<br>Chef adjoint d'unité   | F. GARCÍA MORÁN<br>J.P. LAMBOT |
| 6. Service de transmission de données<br>Chef adjoint d'unité | R. KROMMES<br>K. DE VRIENDT    |
| 7. Centre de Calcul<br>Chef adjoint d'unité                   | J.P. WEIDERT<br>A. BODART      |

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(\*) Egalement responsable du Service de Traduction

## ORGANISATIONS LOCALES

DG	IRM Information Ressources - Manager	Position de l'informatique dans l'organigramme	SA System Administration	SU Support Utilisateurs	DV Développement	ISO Informatics Security Officer	Corresp. Inform. O/N
1	COBBAERT J.L.	Unité horizontale	GIULIANA V. PENA FERNANDEZ A.	BOUCHEZ T. GIULIANA V.	COBBAERT J.L.	COBBAERT J.L.	O
I A Siège + délé	GRAYKOWSKI C. (f.f.)	dans unité horizontale	GINESTE P.	DEBUCK Y. / ELORZA A.	SORE M.	PHAM R.	
I B	DASCALU I.	secteur dans unité horizontale	DG I / PENA A.	CALCAGNO S.	DASCALU I.	DASCALU I.	
2 B L	HIRN P. HOLLMANN F.	unité rattachée au Dir.Gén unité rattachée au Dir. SOS	HIRN P. MAYER A.	HIRN P. FEE A.	HIRN P. HOLLMANN F.	HIRN P. HERAN M.	O O
3	BEURMS W.	dans unité horizontale	DEGREVES J.		MAEBE P.	MAEBE P	O
4	VERVAET G	unité rattachée au Dir.Gén.	LENART M.	SCHWEIGER P.	OLIVIER J-L.	VANDENRYDT P.	O
5 B L	BLANCHARD E. LEBEAU J.	secteur dans unité horizontale rattachée au Directeur	NASSI D. MELEN J.-M.	DEWAEL Ph. CONTER I.	DE SMET J. LEBEAU J.	BLANCHARD E. MELEN J.M.	
6	PEARE C.	unité dans dir.horizontale	VLAHOPOULOS G.	VLAHOPOULOS G.	FRIZ A.	VLAHOPOULOS G.	
7	MAMBOURG A.	dans unité horizontale	HECHTERMANS B.	HECHTERMANS B.	REMY T.	MAMBOURG A.	
8	LAVOREL B	unité rattachée au Dir. Gén.	JOWETT I.	LAVOREL B.	-----	-----	O
9 B L	VANTILBORGH H.	unité rattachée au Dir.Gén.	CUCE G. KOEPP C.	CUCE G. KOEPP C.	BIERLAIRE P. LUISSETTI R. / WILKIN G.	MARTINEAU G.	O
10	CRUCKE F.	rattachée au Directeur Général	FAIRCLOUGH M.	MURGIA G.	CRUCKE F.	MURGIA G.	
11	CUNNINGHAM T.	unité rattachée au conseiller principal	VANDERLINDEN E.	FOULART P.	PHILIPPAERTS E..	CUNNINGHAM T	O
12	DE BACKER A.	unité horizontale	SACK C.	SACK C.	BORDET O.	DE BACKER A.	O
13 B L	BUS J.	unité horizontale rattachée au directeur général	DE SADELEER H. GARCIA-BLANES V.	DE SADELEER H.	SANZ VILLEGRAS M-T. MAUCQ Th.	MATHIEU A. -----	O O
14	DOM F.	dans unité horizontale	ADRIAENSEN L.	DEWALQUE J.F.	DOM F.	RIZO MARTIN J.	
15	VAZQUEZ SOUTO S.	position horizontale	VAN DE STEEN P.	VASQUEZ SOUTO S.	VASQUEZ SOUTO S.	VASQUEZ SOUTO S.	
16	BOTMAN M	unité dans dir. horizontale	BOTMAN M ENGELHARDT P.	BOTMAN M.		VAN DEN EYNDE P.	O
17 B L	DE COSTER J.M. KSCHWENDT H.	dans unité horizontale unité dans dir. opérationnelle	SELLERS W. MAQUA L.	SELLERS W. MAQUA L.	KARMAN J.	DE COSTER J.M.	

## ORGANISATIONS LOCALES

DG	IRM Information Ressources Manager	Position de l'informatique dans l'organigramme	SA System Administration	SU Support Utilisateurs	DV Développement	ISO Informatics Security Officer	Corresp. Inform. Q/N
19	BOSMAN R.	rattachée au Dir. Général	LENOIR M.	VANDERMEULEN G.	VAN GEEL A.	VAN GEEL A.	O
20	CABALLERO A.	dans unité horizontale	TRUSSART J.L.	LEDOUX C./ DE HENAU C.	MEFTAH C.	CABALLERO A.	O
21	WALKER M.	unité dans dir. horizontale	SURMONT C.	BONNE R.	-----		
22	LENAERTS D.	position horizontale	SPYCKERELLE P.		MORAY D.	MORAY D.	
23	KEYMOLEN M.	dans unité horizontale	RODRIGUEZ CASTRO E	RODRIGUEZ CASTRO E	VERNELEN J.	LOPEZ SANTO L.	O
24	CENTURIONE F.	rattachée à l'Assistant	-----	STEIN M.	CENTURIONE F.	CENTURIONE F.	O
SG - CAB	KODECK F.	unité rattachée au Secr. Général	RUYS P.	RUYS P.	DUJARDIN C.	DUJARDIN C.	
SJ	ORTMANN E	dans unité horizontale	ACKERMANS L.	ACKERMANS L.	DONVIL J.	GRUNWALD J.	
SPP	MAC CANN D.	position horizontale	GEORGES L.	MAC CANN D.	MAC CANN D.	PRATS X.	
OSCE	DEFAYS D.	unité dans dir. horizontale	ZILLIOX N.	ZILLIOX N.	DAVIES N.	WIELAND U.	O
AAE	MOTA J	position horizontale	CARVALHOSA M.	CARVALHOSA M.	MOTA J.	MONASSE D.	
BS	BRUNET F.	rattachée à l'Assistant	ANDRE P. VIJVERBERG M.	ANDRE P. VIJVERBERG M.	ANDRE P. VIJVERBERG M.	ANDRE P. VIJVERBERG M.	
SCR	HAÏK J					HAÏK J.	
CDP	FLOYD W.	rattachée à l'Assistant	WAGNER L.	WAGNER L.	WAGNER L	WAGNER L.	
SDT B L	BASTIEN C. (f.f.)	unité rattachée au Dir. Gén	BASTIEN C.	CAPLEN H BIRCHEM M	LOGNONE B. DEBART F.	BASTIEN C	O
IGS	DE GAULTIER DE LAGUIONIE	rattachée à l'Assistant	LOTTEFIER D	ROBINSON P.	LOTTEFIER D.	DE GAULTIER DE LAGUIONIE	
SCIC	D'HOEKERS A	dans unité horizontale	VAN DEN EEDE G	VAN DEN EEDE G	GEVAERT H	ELIAS C.	O
ECHO	SOETEWEY E.	rattachée à l'Assistant	DELSINNE D.		TOLVASEN S	SMITH F. (f.f.)	
OPOCE	DÖLL F.	dans unité horizontale	MEYER P.	SCHMIT C.	SCHMITZ P.	PIERARD A .	
CCR	SALVI F.	rattachée à l'assistant	FERRALORO S	FERRALORO S.	SALVI F.	LHOST G. / SALVI F.	
DI B L	CRELOT J.	dans unité horizontale	VAN RENTERGEM D CRELOT J.	VAN RENTERGEM D. CRELOT J.	TOSETTI A.	CRELOT J	O

**Budget Informatique sur le Titre A5 &  
Article A-430 - IRMB de juin**

DG	(en KECU)
TOTAL	
I	1.717
I/A Siège	1.972
IB	1.176
II/BXL	1.003
II/LUX (ex XVIII)	628
III	1.859
IV	1.300
V/BXL	576
V/LUX	454
VI	3.555
VII	767
VIII	1.540
IX	5.759
X Siège	1.361
X Bureaux	1.526
XI	1.100
XII	79
XIII/BXL	569
XIII/LUX	247
XIV	511
XV	876
XVI	291
XVII/BXL	686
XVII/LUX	860
XIX	4.848
XX	697
XXI	1.022
XXII	510
XXIII	703
XXIV	1.059
SG	3.906
SJ	425
SPP	337
OSCE	3.443
AAE	49
DI	1.095
BS	302
SCIC	1.394
SDT	3.424
CDP	133
IGS	129
ECHO	461
TFNA	124
SCR	25
Dépenses communes	14.805
<b>TOTAL</b>	<b>69.302</b>

Management	150
Support des Systèmes d'Information	1.780
Support Logistique et Formation	770
Support Technique et Bureautique	2.946
Support Transmissions des Données	11.692
Centre de Calcul	13.359
Sécurité informatique	97

<b>TOTAL</b>	<b>Services Centraux</b>	<b>30.794</b>
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<b>Réserve générale</b>	<b>26</b>
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<b>TOTAL</b>	<b>Réserves IRMB</b>	<b>26</b>
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<b>TOTAL</b>	<b>100.122</b>
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## RESSOURCES HUMAINES DANS L'EQUIPE IRM EN 1998

(1) (2) (3) (4)

DG	Personnel Informatisable (5)	Total Equipe IRM												
		Développ./Mainten.		Adm. Syst.		Supp. Util.		Mgt.(+ tâches adm.)		Autres		Stat.	Ext.	Equipe
		Stat.	Ext.	Stat.	Ext.	Stat.	Ext.	Stat.	Ext.	Stat.				
I	596	3	5,4	1	1,1	1	2,8	2		7	9,3	16,3		
IA	859	2	4,4	3	1,9	2	3,8	2		9	10,2	19,2		
IB	502	2	2,1	1	1,1,0	,5	2,9	1,5		5	7,0	12,0		
II	362	4,5	3,4	2		1,5	1,3	2		10	4,6	14,6		
II SOF	127	3,8	4,2	2		1	1,2	2		1,3	10	5,3	15,3	
III	1079	5	5,7	7	1,0	10	3,6	5		2	29	10,3	39,3	
IV	534	5	3,9	3	1,0	4	2,3	1		13	7,2	20,2		
V/Bxl	698	2		2		4		1			9	4,8	13,8	
V/Lux	142		2,1	2			1,4	1		1	4	3,5	7,5	
VI	1095	12		3,5		3,5		5			24	20,3	44,3	
VII	340	1	1,6	2	,4	1	1,7	2			6	3,7	9,7	
VIII	702	6	4,8	5		2	3,6	3			16	8,4	24,4	
IX	1907	24	31,7	5	2,1	6	6,4	9			44	40,2	84	
X	609	3	4,7	2		5	3,5	3			13	8,2	21,2	
X Bureaux	485		,7		2,5	13	2,1	1			14	5,3	19,3	
XI	563	4	1,4	2	,8	9	2,0	2			17	4,2	21,2	
XII	1056	10,8		7,9		2,9		3,3		1,3	26		26	
XIII/Bxl	615	4	1	4,3	1	3,8	1,2	3			15	3,8	18,8	
XIII/Lux	244	1	,8	1		4	,5	4			10	1,3	11,3	
XIV	273	2,5	,9	1,8	,2	2	1,6	3,3		2	11,5	2,8	14,3	
XV	450	2	,6	2	1,0	4	2,8	1			9	4,4	13,4	
XVI	485	6	,8	1		4	,1	5			16	,9	16,9	
XVII/Bxl	363	2,5	2 1,0	2,5			1,4	1			6	4,4	10,4	
XVII/Lux	302	8	,5	6	,8	2	1,4	3		1	20	2,7	22,7	
XIX	381	10	36	3	2,0	9	2,1	7			29	40,1	69,1	
XX	256	1	3,7	2	1,0	2,5	1,0	1,5			7	5,7	12,7	
XXI	437	18		2,5	1,9	2,5	2,1	11			34	4,8	38,8	
TFRH	326	3,5	,6	1,5	1,0	2	1,3	1		1	9	2,9	11,9	
XXIII	244	2	1,2	,5	,4	,5	2,7	2,5			,5	6	4,3	10,3
XXIV (SPC)	442	3	3,7	3	,3	2	2,4	1		3	12	6,3	6	
SG	1233	3,5	10,1	3,3	2,2	4,8	7,9	4		4	19,5	20,2	39,7	
SJ	239	1	,3	1	,9	1,8	1,1	2			5,8	2,3	8,1	
SPP	77		2,3	1		1	,1	1			3	2,4	5,4	
EUROSTAT	784	11	15	8	1,9	6	5 1,0	5			30	23,0	53,0	
AAE	24	,4	,2	1		,2	,0	,5			2,1	,2	2,3	
BS	90	,3	1,1	,5	,6	1,1	,4	,8			2,7	2,1	4,8	
CDP	34	,5	,2	,3	,3	,7	,2	,5			,2	2,1	,8	2,8
SDT	1990	10	11,0	12	1	23	3,9	3		4	52	15,9	67,9	
IGS	27	,4	,4	,4		,8	,1	,4			2	,5	2,5	
DI (6)	355	6,3	4,7	2,5	,4	5,8	2,2	3			17,5	7,3	24,8	
SCIC	622		3,2		1,1		3,2					7,4	7,4	
ECHO	147	3	1 1,0	2	,9		,6	1			6	3,6	9,6	
Totaux	22096	187,8	193,9	113,3	36,5	149,7	92,2	111,3		21,2	583,2	322,7	905,8	

## REMARQUES et CONVENTIONS

- Sont répertoriés ici le personnel statutaire et les externes (globalement).
- Les chiffres des DGs correspondent aux annexes des schémas directeurs 1998-99 et concernant 98
- Les chiffres de la Direction Informatique correspondent à l'état courant.
- Dans les colonnes des ressources statutaires les chiffres correspondent à des postes, qu'ils soient occupés ou non
- Source des chiffres de cette colonne: personnel informatisable 1998 utilisés dans le cadre de l'allocation à priori
- L'équipe IRM de la Direction Informatique est comptabilisée dans le tableau des DGs.

Direction informatique (6)
265

Les chiffres concernant les externes sont obtenus en prenant les montants planifiés et en les divisant par 100 (100 Kecu par h/A)

## Projets d'Infrastructure

(situation au 25/6/98)

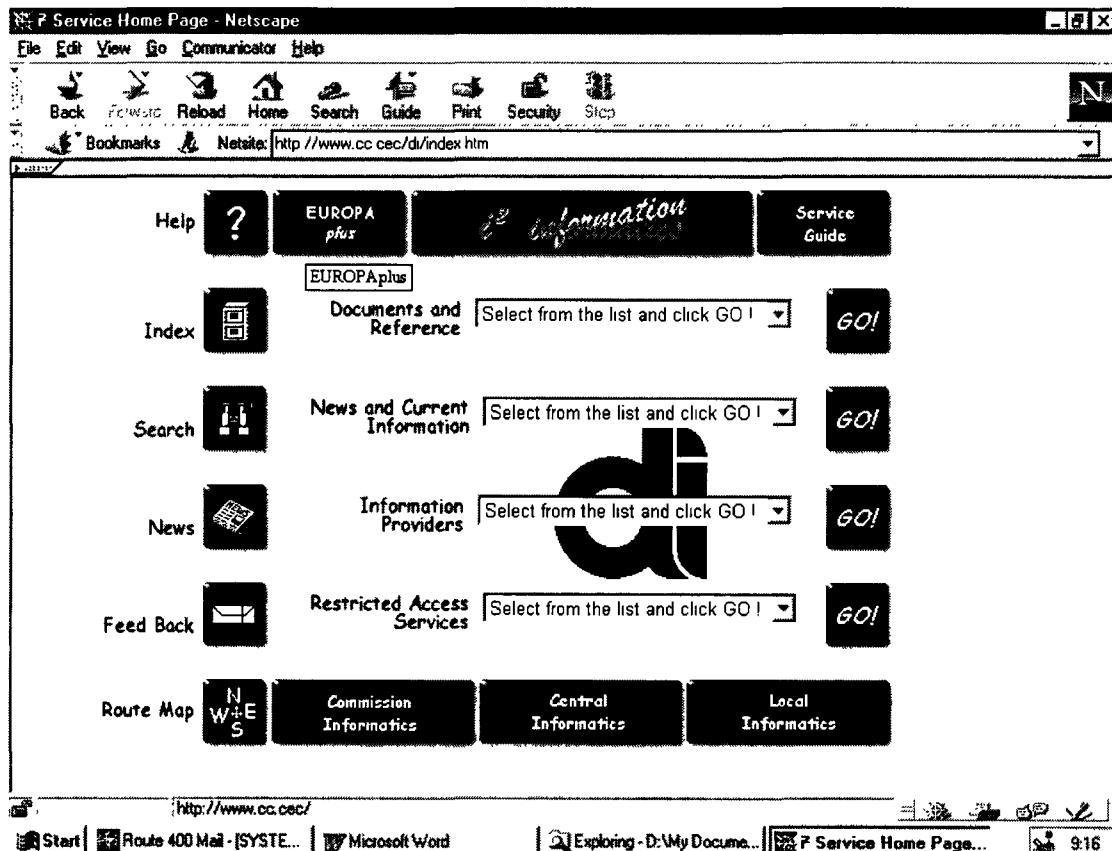
Projets				Planification		
Nom	Objet	Chef de projet	Programme/ Responsable	Phase active (2)	Fin de la phase active	Mise en service (3)
INSEM2	INTERINSTITUTIONAL ELECTRONIC MAIL-2 Amélioration de la qualité Outils d'encryptage E-mail pour projet NPT File transfer body part	SCHÄFER	DI/IDA	OP FS OP DEF	1/98 5/98 1/98 4/98	1/98 1/98 1/98 9/98
INSEM3	Appel d'offre	SCHÄFER	DI	FS	6/98	6/99
EUROPA EUROPA EUROPA PLUS EUROPA TEAM (4)	DIFFUSION DE L'INFORMATION Serveur externe Serveur interne Proxy interinstitutionnel	DE CONINCK	DI	OP OP OP		1996 1996 1996
ADONIS v 3.1.h Adonis/image Adonis 5	ADMINISTRATION DES DOCUMENTS Corrections, améliorations, sécurité scannérisation, visualisation et impression des documents Dossiers, intégration,courrier électronique,EUROLOOK	J.F. BLEROT	DI	OP RI PA	12/97 12/97	7/97
SICMOB	GESTION DES BIENS MOBILIERS V/1,11A	J.F. BLEROT	DI	OP		10/97
ELS	GESTION DES BIENS ET HELPDESK V/2,12 T V/2,12T2	J.F. BLEROT	DI	OP OP		6/97 12/97
TCENTER FTS	CENTRE DE TELECOMMUNICATIONS New Fax/ Telex Server	AGUDO	IDA	OP		12/97
DIR	DIRECTORIES Annuaire interinstitutionnel Annuaire interinstitutionnel	SCHÄFER	IDA	FS CO	3/97 5/97	5/97 12/97
SNET Step 0 Step 1 Step 2 Step 3	SUPER/SEAMLESS NETWORK Introduction of switching inside buildings Reorganisation of network management Implementation of an ATM based network Implementation of ATM aware protocols and applications	JORTAY TORCATO LANGE FOIDART	DI	CO/OP DEF/CO DEF/CO PA	1997 1998 1997 1998	1997 1998 1998 1998
Euro	INTRODUCTION DE L'EURO	TOSSOUNIDIS	DI			
GROUPWARE	GROUPWARE/WORKGROUP COMPUTING	TOSSOUNIDIS	DI			1996
NTP	NEXT TECHNOLOGICAL PLATFORM	PUIG SAQUES	DI	OP	12/98	97/98
CD-ROM	INTEGRATION CD-ROM DANS L'ENV, BUREAUT,	GARCIA MORAN FRASER	DI	OP		1996
EUROFORMS	PRODUCTION DE FORMULAIRES SUR PC Version 1.2 Version 1.3a Version 1.4	CABALLE	DI	OP OP OP		6/97 7/97 1/05/98

**Légendes:**

- (1) les modifications par rapport à la version précédente sont indiquées par un \*
- (2) PA . préanalyse; FS . étude de faisabilité, DEF . definition; CO . construction, RI . running-in, OP . opérationnel
- (3) en cas de PA et de FS, la date de mise en service est donnée à titre indicatif ("E")
- (4) précédemment EUROPA CLUB

# PROGRAMMES DE FORMATION INFORMATIQUE

Le catalogue et le calendrier des actions de formation se trouvent dorénavant sur notre serveur EUROP*Aplus*.



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- Cliquez sur « Informatics Informations »
- Dans la fenêtre déroulante de « News and Current Information » cliquez sur « Forum informatique »
- Cliquez sur GO!

Le nouvel index d'EUROP*Aplus* vous permet également d'accéder à ces pages via le mot-clé « Formation ».

J.-L. BROUSMICHE  
DI / SLF

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG II / J.P. Lambot DI-STB

### LOCAL OPERATING SYSTEMS

Product name	Classe	Statut	Comments
DOS 5.0	B	PO	PC Desktop
Windows 3.1	B	PO	PC Desktop
Windows 95	B	PO	PC Desktop
Windows 95	B	OP	PC Portables
Windows NT Workstation 4.0	B	OP	PC Desktop
Windows NT Server 4.0	B	OP	Serveurs bureautiques
Windows NT Server 4.0	B	EV	Serveurs applicatifs
UNIX divers (*)	B	PO	Serveurs bureautiques
UNIX divers (*)	B	OP	Serveurs applicatifs

(\*) : conformes au standard de jure ISO (POSIX 1003) complété par les spécifications UNIX 95™ de l'Open Group

### WORKSTATIONS and CLIENT OPERATING SYSTEMS

Product name	Operating systems	Classe	Statut	Comments
NCD X-Terminals	UNIX	C	AD	X-Terminal
DIGITAL X-Terminals	UNIX	C	AD	X-Terminal
BULL ZDS 425SH+ ; 433DH+ (80486)	DOS5.0/WIN3.1/WIN95	B	AD	Desktop
ICL ErgoPro D4/33XG, D4/66 XG et Xgi (80486)	DOS5.0/WIN3.1/WIN95	B	AD	Desktop
SNI PCD-4HVL (80486)	DOS5.0/WIN3.1/WIN95	B	AD	Desktop
OLIVETTI M4-62, M400-40, M6-440, M6-460, M4-66 (80486)	DOS5.0/ WIN3.1/WIN95	B	AD	Desktop
ICL ErgoPro e450/75, e451/75, e451/100, x450/100, x451/100 (Pentium)	DOS5.0/WIN3.1/WIN95/ WIN NT	B	OP	Desktop
OLIVETTI M4-75, M4-90, M4-100, M4-166, M2-233 MT (Pentium)	DOS5.0/WIN3.1/WIN95/ WIN NT	B	OP	Desktop
SNI Scenic Pro M5/166 (Pentium)	DOS5.0/WIN3.1/WIN95/ WIN NT	B	OP	Desktop
OLIVETTI M6000 MT	DOS5.0/WIN3.1/WIN95/ WIN NT	B	OP(*)	Desktop
OLIVETTI Philos 44 et 46 (80486)	DOS5.0/WINDOWS 3.1	B	AD	Portable
TEXAS INSTRUMENTS TM 4000 (E) (80486)	DOS5.0/WINDOWS 3.1	B	AD	Portable
OLIVETTI Philos 48C (80486)	DOS5.0/WIN3.1/WIN95	B	OP	Portable
OLIVETTI Echos 75C et 133S (Pentium)	DOS5.0/WIN3.1/WIN95	B	OP	Portable
SNI PCD-4ND 100 (80486)	DOS5.0/WIN3.1/WIN95	B	OP	Portable + Docking Station
SNI PCD-5ND 75 (Pentium)	DOS5.0/WIN3.1/WIN95	B	OP	Portable + Docking Station
SNI Scenic Mobile 700 (Pentium)	DOS5.0/WIN3.1/WIN95	B	OP	Portable + Docking Station
TOSHIBA 440 CDT	WINDOWS 95	B	OP	Portable
TOSHIBA 460 CDT	WINDOWS 95	B	OP(*)	Portable
COMPAQ ARMADA 7770	WINDOWS 95	B	OP(*)	Portable + Docking Station

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG II / J.P. Lambot DI-STB

### LOCAL SERVERS

Product name	CPU Model	Operating systems	Classe	Status	Comments
BULL DPX 20	IBM Power	AIX 3.2.x	B	AD	
BULL Escala Mxxx, Dxxx, ,Rxxx	PowerPC	AIX 4.1	B	OP	
BULL Z-server LT and EX	Intel 486/Pentium	SCO ODT 3/Unixware	B	AD	
BULL Z-server MXP	Intel Pentium	SCO ODT 3/Unixware	B	OP	
DIGITAL 433, 450, PCT	Intel 486	SCO ODT 3	B	AD	
DIGITAL Prioris HX xxxxMP/Prioris ZX	Intel Pentium/PentiumPro	Windows NT/SCO OS 5	B	OP	
DIGITAL Server 7100	PentiumPro	Windows NT/SCO OS 5	B	OP(*)	
DIGITAL AlphaStation 3000	DEC AXP	Digital Unix	B	OP	
DIGITAL AlphaServer1xxx/2xxx/4xxx/8xxx	DEC AXP	Digital Unix	B	OP	
HP9000 D-Class Enterprise Server (Model Dxxx)	PA - 7200	HP-UX 10.10	B	EV	Projets-pilotes GED
HP9000 K-Class Enterprise Server (Model Kxxx)	PA - 7200, PA-8000	HP-UX 10.xx	B	EV	Projets-pilotes GED
HP NetServer 6/xxx and 5/xxx	Intel PentiumPro	Windows NT	B	EV	Projets-pilotes GED
ICL FX486,MX486	Intel 486	SCO ODT 3/ Unix V.4	B	AD	
ICL F5/60	Intel Pentium	SCO ODT 3	B	AD	
ICL TeamServer Exxx/Hxxx	Intel 486/Pentium	NX V7/SCO ODT 3	B	AD	
ICL SuperServer Hxxxs/Kxxxxs	Sparc	NX V7 Mplus	B	OP	
NCR 34xx/35xx	Intel 486/Pentium	UNIX SRV4	B	AD	
NCR Entry Level Servers Sxx	Intel Pentium	UNIX SRV4	B	OP	
NCR WorldMark 4xxx	Intel Pentium	UNIX SRV4	B	OP	
OLIVETTI LSX 5040/5050	Intel 486/Pentium	SCO ODT 3/Unix V.4	B	AD	
OLIVETTI LSX 65xxx	Mips R3000/R4400	DC/OSX	B	OP	Pyramid Server
OLIVETTI SNX Systema xxx	Intel Pentium	SCO ODT3/ SCO OS 5	B	OP	
OLIVETTI NetStrada 7000	Intel PentiumPro	Windows NT/SCO OS 5	B	OP	
SNI PCE 4/5	Intel 486/Pentium	SCO ODT 3	B	AD	
SNI Primergy xxx	Intel Pentium	SCO OS 5	B	OP	
SNI RM 400/600	Mips R4400	SINIX V 5.4	B	OP	
SNI-Pyramid Nile 100/150	Mips R4400	DC/OSX	B	OP	
SUN SparcStation 4/5 and SparcServer 4/5	MicroSparc-II	SOLARIS 2.x	B	AD	
SUN SparcStation 10/20 and SparcServer 10/20	SuperSparc(+)	SOLARIS 2.x	B	AD	
SUN SparcServer 1000/SparcServer 2000	SuperSparc	SOLARIS 2.x	B	OP	
SUN Enterprise 1/2 (UltraServer 1/2)	UltraSparc	SOLARIS 2.x	B	OP	
SUN Enterprise 3000/4000/5000	UltraSparc	SOLARIS 2.x	B	OP	

OP(\*) = Nouvelles acquisitions

### CENTRAL SERVERS and OPERATING SYSTEMS

Product name	CPU Model	Operating Systems	Classe	Status	Comments
AMDAHL 5995-2570M	IBM System 390	VM/ESA	B	PO	DI-CC
AMDAHL 5995-2570M	IBM System 390	MVS/ESA	B	PO	DI-CC
BULL DPS 9000	-	GCOS 8	B	PO	DI-CC
CRAY 6400E	SuperSparc	Solaris 2.5.1	B	OP	DI-CC
SIEMENS H130-A	-	BS2000 - v10/OSF1/ OSD2	B	PO	DI-CC
SNI Pyramid Nile 1000	MIPS R4400	Reliant UNIX 5.43	B	OP	DI-CC
SUN 3000	SuperSparc	Solaris 2.5.1	B	OP	DI-CC

Seuls sont repris les modèles de serveurs UNIX installés au Centre de Calcul et qui ne figurent pas dans la liste des serveurs locaux.

# Hardware and Operating Systems

Product family managers :  
P. Hirn DG II / J.P. Lambot DI-STB

## PRINTERS

Interface, protocol, standard	Operating systems	Classe	Statut	Comments
Adobe Postscript	-	A	OP	
HP-PCL 3, 4, 5 et 6	-	A	OP	
HP DeskJet 310, 320	DOS/WINDOWS	B	OP	Portable; N&B; HP-PCL3
HP DeskJet 340	DOS/WINDOWS	B	OP(*)	Portable; N&B; HP-PCL3
HP DeskJet 500	DOS/WINDOWS	B	AD	Personal; N&B; HP-PCL3
HP DeskJet 510, 520, 540, 600	DOS/WINDOWS	B	OP	Personal; N&B; HP-PCL3
HP LaserJet IIP	DOS/WINDOWS	B	OP	Personal; N&B; HP-PCL5
HP LaserJet 4L	DOS/WINDOWS	B	OP	Personal; N&B; HP-PCL5
HP LaserJet 5L, 5P	DOS/WINDOWS	B	OP	Personal; N&B; HP-PCL5
HP LaserJet 6L et 6P	DOS/WINDOWS	B	OP(*)	Personal; N&B; HP-PCL
HP LaserJet III	DOS/WINDOWS/UNIX	B	AD	Shared; N&B; HP-PCL3
HP LaserJet IISi	DOS/WINDOWS/UNIX	B	OP	Shared; N&B; HP-PCL3
HP LaserJet 4, 4M, 4P Plus, 4M Plus	DOS/WINDOWS/UNIX	B	OP	Shared; N&B; HP-PCL 5 ou Post-Script
HP LaserJet 4Si/SiMX/V/MV	DOS/WINDOWS/UNIX	B	OP	Shared; N&B; HP-PCL 5 ou Post-Script
HP LaserJet, 5, 5N, 5M	DOS/WINDOWS/UNIX	B	OP	Shared; N&B ; HP-PCL 6 ou Post-Script
HP LaserJet, 5, 5N, 5M	DOS/WINDOWS/UNIX	B	OP	Shared; N&B ; HP-PCL 6 ou Post-Script
HP LaserJet 5Si/SiMX	DOS/WINDOWS/UNIX	B	OP	Shared; N&B; HP-PCL 5 ou Post-Script
HP LaserJet 4000/4000T/4000N/4000NT	DOS/WINDOWS/UNIX	B	OP(*)	Shared; N&B, HP-PCL6
HP DeskJet 500C	DOS/WINDOWS	B	AD	Personal; color; HP-PCL3
HP DeskJet 550C, 560C, 660C, 690C, 850C, 870Cxi	DOS/WINDOWS	B	OP	Personal; Color; HP-PCL3
HP DeskJet 890C	DOS/WINDOWS	B	OP(*)	Personal; color; HP-PCL3
HP DeskJet 1100C	DOS/WINDOWS	B	OP(*)	Personal; color; HP-PCL3
HP DeskJet 1200C/CPS, 1600 C/CPS	DOS/WINDOWS/UNIX	B	OP(*)	Shared; color; HP-PCL3
MT 660/690	UNIX	B	OP	Imprimante à chaîne
OCE 66xx	UNIX	B	OP	HP-PCL3 ou Post-Script
SNI 9014	DOS/ WINDOWS	B	OP	Multicopy forms printing
TI (XL) PS 17/PS 35	UNIX	B	OP	Postscript
OLIVETTI DM 624	DOS/ WINDOWS	C	OP	Multicopy forms printing

## SCANNERS

Product name	Operating systems	Classe	Statut	Comments
HP SCANJET IIP, IIIP	DOS/WINDOWS	B	OP	
HP SCANJET IIC, IICx, IIIC	DOS/WINDOWS	B	OP	

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG II / J.P. Lambot DI-STB

### OFFICE EQUIPMENTS (fax, photocopier, ...)

Product name	Type	Classe	Statut	Comments
CANON L500, L600, L800	FAX	B	OP	
ADLER 1121, 1428	Office calculator	B	PO	
OLIVETTI LOGOS 452, 384	Office calculator	B	PO	
CITIZEN 440 DP	Office calculator	B	OP	
NASCO 2400	Office calculator	B	OP	
PRECISA 5700	Office calculator	B	PO	
MINOLTA EP1050/EP 1083	Photocopier	B	OP	0- 5 Kcop/month 15 A4/m (1)
AGFA X310	Photocopier	B	OP	5-20 Kcop/month 35 A4/m(1)
CANON NP6050	Photocopier	B	OP	20-35 Kcop/month 50 A4/m(1)
CANON NP6062	Photocopier	B	OP	35-55 Kcop/month 62 A4/m(1)
CANON NP6085	Photocopier	B	OP	55-100 Kcop/month 85 A4/m(1)
CANON CLC700	Photocopier colour	B	PO	4-8 Kcop/month; 5 A4/m (7)
CANON CLC 1000	Photocopier colour	B	OP	5-50 Kcop/month; 31 A4/m
MINOLTA CF 900	Photocopier colour	B	OP	< 5Kcop/month 6 A4/m
OCE 2600	Photocopier	B	OP	100-500 Kcop/month 100 A4/m(1)
OCE 3165	Photocopier multi-fonction	B	OP	> 40 Kcop/month; 65 A4/m
RANK XEROX 5690	Photocopier	B	OP	> 500 Kcop/month 135 A4/m (1)
RANK XEROX Docutech	Photocopier	B	OP	>500 Kcop/month 135 A4/m (1)
Assmann M800, M205, MC8	REP. Cassette	B	OP	
DICTAPHONE 270	REP. Cassette	B	OP	
PHILIPS LFH 2505	REP. Cassette	B	PO	
OLIVETTI L93, ET112, ET121	Typewriter	B	PO	
OLYMPIA ES106, SGE75	Typewriter	B	PO	
TA 400	Typewriter	B	PO	
TRIUMPH-ADLER TA 410	Typewriter	B	OP	

- (1) Automatic feeding, sorting, two-sided copying
- (2) Automatic feeding
- (3) On-line binding
- (4) Adressing, zones treatment, « mode cachet »
- (5) Color centralized service
- (6) Color decentralized service, basic modification of original
- (7) Color decentralized service, advanced modification of original
- (8) Zones treatment

# Hardware and Operating Systems

Product family managers :  
P. Hirn DG II / J.P. Lambot DI-STB

## LAN INTEGRATION PRODUCTS

Product name	Operating systems	Classe	Statut	Comments
NETBIOS	-	A	OP	
OLE 2.0	-	A	OP	
SMB	-	A	OP	
TCP/IP	-	A	OP	
WINSOCKETS	-	A	OP	
PC-NFS 5.x	DOS, WINDOWS	B	PO	
LAN MANAGER 2.x Server	UNIX	B	PO	
MS LAN MANAGER 2.x Client	DOS, WINDOWS	B	PO	
NFS	UNIX, BS2000, MVS/ESA, VM/ESA	B	OP	
HUMMINGBIRD NFS Maestro	WINDOWS NT Client	B	OP	
Diskshare Intergraph	WINDOWS NT Server	B	OP	
Advanced Server for Unix (Bull, NCR, SNI, SCO)	UNIX	C	OP	
Vision SCO NFS	UNIX	B	OP	

## EMULATORS

Product name	Operating systems	Classe	Statut	Comments
3270	-	A	OP	
9750	-	A	OP	
Telnet	-	A	OP	
VT 220	-	A	OP	
X 11.5 or higher	-	A	OP	
X WINDOWS	-	A	OP	
eXceed/W	WINDOWS, Windows NT	B	OP	
LOG - WS (9750 emulator)	WINDOWS, Windows NT	B	OP	
RUMBA 3270	WINDOWS, Windows NT	B	OP	
TerWinal	WINDOWS, Windows NT	B	OP	

## SYSTEM MANAGEMENT PRODUCTS

Product name	Operating systems	Classe	Statut	Comments
SNMP	-	A	OP	
CAPACITY NetCon	DOS/WINDOWS/Windows NT	B	OP	
LEGATO NETWORKER	UNIX, WINDOWS NT Server	B	OP	
ALEXANDRIA	PYRAMID UNIX DCOSx, SCO OpenServer	C	OP	
Diskeeper	Windows NT Server	B	OP	
Quota manager	Windows NT Server	B	OP	
O&O Defrag	Windows NT Client		EV	
SMS	Windows NT Server		EV	

## Hardware and Operating Systems

Product family managers :  
P. Hirn DG II / J.P. Lambot DI-STB

### SECURITY

Product name	Operating systems	Classe	Statut	Comments
<b>Identification / Authentification renforcée</b>				
Carte à puce: SLE44CR80S (UTIMACO)	DOS5.0/WIN95/WIN NT/UNIX		EV	SINCOM 2, courrier électronique sécurisé, généralisation possible
Lecteur Carte à puce	DOS5.0/WIN95/WIN NT/UNIX		EV	SINCOM 2, courrier électronique sécurisé, généralisation possible
Token (SECURE-ID, DIGIPASS, etc.)	DOS5.0/WIN95/WIN NT/UNIX		EV	Par BS/SI
<b>Journalisation, Monitoring, Alerte</b>				
INTRUDER ALERT (AXENT TECHN)			EV	
BRAIN TREE SECURITY SOFTWARE			EV	
<b>Systèmes d'audit</b>				
TIGER-COPS-TRIPWIRE	UNIX		EV	Par BS/SI (version INTERNET révisée)
PC-UNIX-AUDIT (INTRUSION DETECTION)	DOS5.0/WIN3.1/WIN95		EV	Par BS/SI
KANE SECURITY ANALYST	WIN NT		EV	Par BS/SI
SATAN	UNIX/WIN NT		EV	Par BS/SI (version INTERNET révisée)
ISS-SCANNER (ISS)	UNIX/WIN NT		EV	Par BS/SI, classe B/OP à prévoir
<b>Sécurité physique (antivol)</b>				
SECUPLUS			EV	Par BS/SI
LOCK-IT			EV	Par BS/SI
<b>Matériel</b>				
CRYPTOFAX			EV	Domaine classifié / classe C / OP à prévoir (DGIA)
Matériel TEMPEST			EV	Domaine classifié

# Network and Telecommunication

Product family managers:

W. BEURMS DG III / K. DE VRIENDT DI-STB

## SUPPORTED PROTOCOLS

## PROTOCOLS SUPPORTED INTERNALLY

Product name	Version	Operating system	Environnement	Classe	Status	Comments
<b>- basic networking</b>						
IP (and the various application protocols above it)				A	OP	Basic networking protocol
SNMP				C	OP	Local management + IDNet/Snet management
<b>- for e-mail</b>						
APS				A	OP	Remote access to mailboxes
SMTP				C	OP	For mail applications
X.400 (P1 and P7)				A	OP	Basic protocol for INSEM2
X.500					EV	
RSA, DES, X.509						<i>Actual status?</i>

## SUPPORTED PROTOCOLS

## PROTOCOLS SUPPORTED FOR EXTERNAL COMMUNICATIONS

Product name	Version	Operating system	Environnement	Classe	Status	Comments
<b>- for e-mail</b>						
Fax Group 3			Telecom Center	A	OP	
SMTP			Telecom Center	A	OP	
Telex			Telecom Center	C	PO	
X.400 (84)			Telecom Center	C	OP	
X.400 (88)			Telecom Center	C	OP	
X.400 (92)			Telecom Center	A	OP	
X.500					EV	
<b>- for file transfer</b>						
FTAM			Telecom Center	C	PO	
FTP			Telecom Center	A	OP	
<b>- for remote access</b>						
ISDN			Telecom Center	A	OP	For external access to TC services
PPP			Telecom Center	A	OP	For external access to TC services
PSTN			Telecom Center	A	OP	For external access to TC services
Telnet			Telecom Center	C	OP	Via GW!
X.25			Telecom Center	A	PO	
X.3						<i>Still supported?</i>
<b>- for Web access</b>						
HTTP/HTTPS			Telecom Center	A	OP	For access to external Web sites, for external access to Europa servers, for limited access to internal servers (in combination with SSL)
SSL			Telecom Center		EV	

## Network and Telecommunication

Product family managers:

W. BEURMS DG III / K. DE VRIENDT DI-STB

### SUPPORTED PROTOCOLS

### PROTOCOLS RELATED TO E-MAIL APPLICATIONS

Product name	Version	Operating system	Environnement	Classe	Status	Comments
CMC				A	OP	Application in Unix environment
MAPI (16 bit)				A	OP	Applications in Windows environment
SMTP				A	OP	

### PRODUCTS

### E-MAIL RELATED PRODUCTS

Product name	Version	Operating system	Environnement	Classe	Status	Comments
LMS	2.0		Telecom Center	C	OP	Gateway X.400/SMTP/Fax/Telex
OLE server for Route400 CMC Mail Services - 32 bit version	2.0.0.3			B	OP	Developed and maintained by DI
Route400 Fax printer driver	???			B	OP	
Route400 Fax viewer	???			B	OP	
Route400 MTA	3.5	SCO/ODT		B	OP	Basis for INSEM2
Sendmail	8.8.8			C	OP	For applications

### PRODUCTS

### NETWORK MONITORING TOOLS (TO BE REVIEWED)

Product name	Version	Operating system	Environnement	Classe	Status	Comments
Expert Sniffer Network Analyser				B	OP	What network analysis tools to keep?
LanProbe II				B	OP	What Class/Status to give to
Open View Network Node Manager			UNIX/MOTIF	B	OP	remaining products?
Probeview/SNMP			MS WINDOWS	B	OP	
LAN Analyser				C	PO	

### PRODUCTS

### SECURITY RELATED PRODUCTS

Product name	Version	Operating system	Environnement	Classe	Status	Comments
Firewall-1	???	Solaris	Telecom Center	C	OP	
Netscape certificate server	2.5	Solaris	Telecom Center		EV	
SIS (Telis)	???		Telecom Center	C	PO	

### PRODUCTS

### VARIOUS PRODUCTS

Product name	Version	Operating system	Environnement	Classe	Status	Comments
FTRG			Telecom Center	C	PO	Gateway FTP/FTAM (X.25/TCP/IP)
GWI			Telecom Center	C	PO	Interactive access to DG machines
Minitel gateway			Telecom Center	C	PO	
Netscape proxy server	???	Solaris	Telecom Center	C	OP	Gateway to Internet for WWW access

# Office Automation and Documents Management

Product family managers:  
F. KODECK SG / J. PUIG DI-STB

## ARCHITECTURAL SPECIFICATIONS

Product name	Environnement	Classe	Status	Comments
UNICODE		A	OP	
OLE 2.0		A	OP	
WordPerfect 5.2 file format	MS Windows 3.1 / 95 / NT	A	OP	Echanges interinstitutionnels
MS-Word 6 file format	MS Windows 3.1 / 95 / NT	A	OP	Migration NTP
MS-Excel 5 file format	MS Windows 3.1 / 95 / NT	A	OP	Migration NTP
MS-Powerpoint 4 file format	MS Windows 3.1 / 95 / NT	A	OP	Migration NTP
HTML 3.2	MS Windows 3.1 / 95 / NT, Unix	A	OP	Europa / Europa +
SGML	MS Windows 3.1 / 95 / NT, Unix	A	OP	
Adobe PDF V.2	MS Windows 3.1 / 95 / NT	A	OP	Migration NTP
Adobe PDF V.3	MS Windows 3.1 / 95 / NT	A	EV	Post-migration NTP

## WORD PROCESSING

Product name	Environnement	Classe	Status	Comments
Word 6.0	MS Windows 3.1	B	PO	
Office 97 / Word 97	MS Windows 95 / NT	B	OP	

## SPREADSHEET

Product name	Environnement	Classe	Status	Comments
Excel 5.0	MS Windows 3.1	B	PO	
Office 97 / Excel 97	MS Windows 95 / NT	B	OP	

## PRESENTATIONS

Product name	Environnement	Classe	Status	Comments
Powerpoint 4.0	MS Windows 3.1	B	PO	
Office 97 / Powerpoint 97	MS Windows 95 / NT	B	OP	

## AGENDA

Product name	Environnement	Classe	Status	Comments
Office 97 / Outlook 97	MS Windows 95 / NT	C	OP	Uniquement agenda individuel
CaLANDar 3.12	MS Windows 3.1 / 95 / NT	B	OP	Year 2000 not compliant
CaLANDar 4	MS Windows 95 / NT		EV	Year 2000 compliant
Lotus-Organizer	MS Windows 3.1	C	PO	
MS SCHEDULE +	MS Windows 3.1	C	PO	

## GRAPHICS TOOLS

Product name	Environnement	Classe	Status	Comments
VISIO 4	MS Windows 3.1 / 95 / NT	B	OP	
VISIO 5	MS Windows 95 / NT		EV	
Corel Draw 6	MS Windows 3.1	C	PO	
Corel Draw 8	MS Windows 95 / NT	C	OP	
INTERLEAF	UNIX, MS DOS	C	OP	

# Office Automation and Documents Management

Product family managers:  
F. KODECK SG / J. PUIG DI-STB

## DOCUMENT EXCHANGE TOOLS

Product name	Environnement	Classe	Status	Comments
ACROBAT Reader V.2	MS Windows 3.1	B	PO	
ACROBAT Reader V.3	MS Windows 95 / NT	B	OP	
ACROBAT Distiller V.3	MS Windows 95 / NT	B	OP	
ACROBAT Exchange V.3	MS Windows 95 / NT	B	OP	

## VIEWERS

Product name	Environnement	Classe	Status	Comments
Outside-In	MS Windows 3.1	B	PO	
Quickview+ 4	MS Windows 95 / NT	B	OP	

## MULTILINGUAL TOOLS

Product name	Environnement	Classe	Status	Comments
MF WINDOWS 4.x	MS Windows 3.1	B	PO	Multilingual kit
MF WINDOWS 5	MS Windows 95 / NT	B	OP	Multilingual kit

## HTML AUTHORING TOOLS

Product name	Environnement	Classe	Status	Comments
HoTMetal Pro 3	MS Windows 3.1	B	PO	
HoTMetal Pro 4	MS Windows 95 / NT	C	OP	Utilisation limitée
FrontPage 98	MS Windows 95 / NT	B	OP	Extensions propriétaires exclues

## WEB BROWSERS

Product name	Environnement	Classe	Status	Comments
Netscape 3.0	MS Windows 3.1	B	PO	
Netscape 3.2	MS Windows 95 / NT	B	PO	
Netscape Navigator 4.0	MS Windows 95 / NT	B	OP	
Netscape Communicator 4.0	MS Windows 95 / NT		EV	
Internet Explorer 4	MS Windows 95 / NT	C	OP	

## PROJECT MANAGEMENT

Product name	Environnement	Classe	Status	Comments
MS-Project 5	MS Windows 3.1	B	PO	
MS-Project 98	MS Windows 95 / NT	B	OP	

## ELECTRONIC MAIL

Product name	Environnement	Classe	Status	Comments
Route400 UA 5.1.0	MS Windows 3.1	B	PO	
Route400 RUA 5.2.2	MS Windows 3.1 / 95 / NT	B	OP	
SendMail (UTI MACO)	MS Windows 95 / NT		EV	Classe B à prévoir

## OCR

Product name	Environnement	Classe	Status	Comments
OMNIPAGE	MS Windows 3.1 / 95 / NT	C	OP	
TEXIRIS	MS Windows 3.1 / 95 / NT	C	OP	

# Office Automation and Documents Management

Product family managers:  
F. KODECK SG / J. PUIG DI-STB

## ADMINISTRATIVE SOFTWARE PACKAGES

Product name	Environnement	Classe	Status	Comments
Euroforms 1.4	MS Windows 95 / NT	B	OP	
Eurolook 3.7	MS Windows 95 / NT	B	OP	

## CRYPTOGRAPHY TOOLS

Product name	Environnement	Classe	Status	Comments
SAFEGUARD Sign & Crypt (UTI MACO)	MS Windows 3.1 / 95 / NT	C	OP	Classe B à prévoir
CUA - CryptWare User Agent (UTI MACO)	MS Windows 3.1 / 95 / NT	C	OP	Classe B à prévoir

## ANTI-VIRUS

Product name	Environnement	Classe	Status	Comments
Dr. SOLOMON (S&S Int.) WinGuard	MS Windows 3.1 / 95 / NT	B	OP	Résident d'alerte
Dr. SOLOMON (S&S Int.)	MS Windows 3.1 / 95 / NT	B	OP	Produit complet
VIRUS SCAN (Mc Afee)	MS Windows 3.1 / 95 / NT	B	OP	Produit complet
SWEEP (SOPHOS)	MS Windows 3.1 / 95 / NT	B	OP	Produit complet
F-PROT (Frisk / DataFellows)	MS Windows 3.1 / 95 / NT	B	OP	Produit complet

# Information Systems Infrastructure

Product family managers:  
J. BUS DG XIII / J. MARIN DI-STB

## Middleware (connectivity)

Product name	Classe	Statut	Environments	Comments
Net 8	B	EV	MS Windows 95/NT, Unix	linked to Oracle 8
SQL* Net 2	B	OP	MS Windows 3.1/95/NT, Unix	linked to Oracle 7
SQL*Net 1	B	PO	MS Windows 3.1, Unix	to migrate, not supported
Object Transaction Server		EV		REDIS project going on

## Data Base management systems

Product name	Classe	Statut	Environments	Comments
ORACLE 8.X	B	EV	Unix, Windows NT	
ORACLE 7.X	B	OP	Unix, Windows NT	Windows NT evaluation going on (sept. 98)
ORACLE 6.0	B	PO	Unix	not supported, migration to be planned
ADABAS C 2.2	B	PO	Unix	
ADABAS C 5.2	B	PO	BS2000, MVS	Running on PO OS

## Retrieval and document management systems

Product name	Classe	Statut	Environments	Comments
SEARCHServer (Fullcrum 3.0)	B	OP	Unix, Windows NT	Windows NT evaluation to be done
ORACLE CONTEXT	C	OP	Unix, Windows NT	
VERITY SEARCH	C	OP	Unix, Windows NT	only CC for Web indexing
ACTION WORKFLOW	C	OP	Windows 95/NT, Unix	Framework contract available
SAROS/MEZZANINE	C	OP	Windows 95/NT, Unix	Framework contract available
HYPERVERAWE		EV	Unix, Windows NT	Prototype until end 98
DORIS		EV		to be used in CELEX
DORODOC	C	PO	Unix-Oracle	
BASIS	B	PO	CC: BS2000 Local : Unix	
MISTRAL V	B	PO	CC: GCOS 8	running in OS PO

## 3<sup>rd</sup> generation languages

Product name	Classe	Statut	Environments	Comments
C, C++	B	OP	all OS	
JAVA		EV	all OS	REDIS project going on
APL	C	OP	Unix, Windows	used in EUROSTAT
MARKIT 2.2	B	OP	Unix, Windows	
COBOL	C	OP	All OS	
FORTRAN	C	OP	All OS	

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## 4th generation Environment

Product name	Classe	Statut	Environments	Comments
4GL web tool		EV		REDIS project going on
POWERBUILDER 6	B	EV	MS Windows 3.1/95/NT, Unix	
POWERBUILDER 5	B	OP	MS Windows 3.1/95/NT	
DEVELOPER/2000 2.0	B	OP	MS Windows 3.1/95/NT, Unix	
VISUAL BASIC 5.0	B	OP	MS Windows 95/NT	
MS-ACCESS 97	B	OP	MS Windows 95/NT	end-user tool
MS-ACCESS 97 and ODE	B	OP	MS Windows 95/NT	Office developer tool
NATURAL 2.2	B	OP	Mainframes	
POWERBUILDER 4	B	PO	MS Windows 3.1	not supported, migration to be planned
DEVELOPER/2000 1.3	B	PO	Windows, UNIX	
VISUAL BASIC 4.0	B	PO	MS Windows 95/NT	only 16 bits platforms
VISUAL BASIC 3.0	B	PO	MS Windows 3.1	
MS ACCESS 2	B	PO	MS Windows 3.1	end-user tool
NATURAL 2.2	B	PO	Unix	
SQL*Forms 3	B	PO	Unix	not supported
SQL*Report 1	B	PO	Unix	not supported
DBASE4 FOR WINDOWS	C	OP	MS Windows 3.1	
FOXPRO For Windows	C	OP	MS Windows 3.1	

## Case tools

Product name	Classe	Statut	Environments	Comments
POWERDESIGNER 6.0	C	OP	MS Windows 95/NT	training on demand
DESIGNER 2000 2.0	C	OP	MS Windows 95/NT	training on demand
Object oriented case tool				Selection to be done (1999)

## Testing tools

Product name	Classe	Statut	Environments	Comments
WIN RUNNER	C	OP	MS Windows 95/NT	training on demand

## Configuration Management tools

Product name	Classe	Statut	Environments	Comments
MS VISUAL SOURCE SAFE	C	OP	MS Windows 95/NT	use specially with Microsoft tools
PVCS	C	OP	MS Windows 95/NT	Recommended use: large projects and co-ordination of several small projects

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## Project Management tools

Product name	Classe	Statut	Environments	Comments
MS-PROJET	B	OP	MS Windows 95/NT	Included in family 3

## Web servers

Product name	Classe	Statut	Environments	Comments
Enterprise Netscape 3.0	B	OP	Unix, Windows NT	Windows NT, to be evaluated, REDIS project
Internet Information Server 4.0		EV	Windows NT	To be done in REDIS project

## Statistical or data analyses software packages

On-line analytical process  
product, Data Decision Systems

Product name	Classe	Statut	Environments	Comments
SAS	B	OP	all platforms	
FAME	B	OP	Unix, Windows	
ORACLE EXPRESS	C	OP	Unix, Windows NT	
ACL	C	OP	Unix	DG XX, audit language
ACUMEN	C	OP	Unix	Eurostat, DG VII
TROLL	C	OP	Unix	DG 2, 12, 17B
AREMOS	C	PO	Unix	DG 2, Eurostat

## Advanced query and reporting tools

Product name	Classe	Statut	Environments	Comments
BUSINESS OBJECTS	C	OP	MS Windows 95/NT	
DISCOVERER 2000	C	OP	MS Windows 95/NT	

## Administrative software packages (external)

Product name	Classe	Statut	Environments	Comments
ASSYST	B	OP	Unix	Central Help desk tool
GLOBUS	C	OP	Unix	Financial package (DG II-SOF)
BAVARIA	C	PO	BS2000	Financial package, running in PO OS

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**Administrative software packages (internal)**

*Strategy to be defined*

*To be discussed, which family*

Product name	Classe	Status	Environments	Comments
SIC	B	OP	Windows 98/NT, Unix	
ADONIS	B	OP	Windows 98/NT, Unix	
EUROFORM	B	OP	Windows 98/NT, Unix	To family 3
SYSLOG	B	OP	Windows 98/NT, Unix	
SINCOM	B	OP	Windows 98/NT, Unix	
ELS/INVENTAIRE	B	OP	Windows 98/NT, Unix	
ELS/SICMOD	B	OP	Windows 98/NT, Unix	
SICMOB	B	OP	Windows 98/NT, Unix	

## Infrastructure information systems packages

Product name	Classe	Status	Environments	Comments
MULTILIS	C	OP	Unix	
MILLENIUMS	C	OP	CC: MVS	Financial package, running in PO OS
SAP	C	OP		

## Geographical information systems

Product name	Classe	Status	Environments	Comments
ARC/INFO	C	OP	Unix	no support available in DI
MAP INFO	C	OP	MS-Windows	no support available in DI

## Interface, Protocol, standard

Product name	Classe	Status	Environments	Comments
DCE RPC	A	OP		
SQL 2	A	OP		
SQL3	A	EV		
ODBC 3	A	OP		
JDBC	A	EV		REDIS project going on
WINSOCKETS	A	OP		
HTPP 1.1	A	OP		
Corba IOOP	A	EV		REDIS project going on
DCOM	A	EV		REDIS project going on
SGML	A	OP		
HTML 3.2	A	OP		
DHTML	A	EV		REDIS project going on
XML	A	EV		REDIS project going on
UNICODE 2.0	A	OP		

**COOPERATION ENTRE LA DI ET LES DG/SERVICES**

COMITES/GROUPES	PRESIDENT(S)	RAPPORTEUR	DG PARTICIPANTES [1]
<b>COMITES</b>			
. Cellule de Pilotage des Schémas Directeurs	P. BERTRAND (DI)	J. REMOND (DI)	3,9,10,13/B,19,OSCE,SG
. Comité Technique Informatique	C. FLESCH	M. ALVES LAVADO (DI)	ouvert à toutes les DG
. Comité de Suivi du Projet "Mesure de la Satisfaction des Utilisateurs"	M. ALVES LAVADO (DI)	M. ALVES LAVADO (DI)	24, SdT
. Sous-comité du CTI "migration NTP"	G. VERVAET (DG4) / M. PUIG (DI)		ouvert à toutes les DG
. Cellule Evolution Stratégique	M. KOENIG (DI) / R. BOSMAN (DG 19)	M. GARANT (DI)	1A,2,3,10,13/B,13/L,19,OSCE,SDT
. Steering Committee Outils logistiques	-----	M. TOSETTI / BLEROT	3,9,20
. User Committee Adonis	M. DEASY (DI)	M. BLEROT (DI)	ouvert à toutes les DG
. User Committee outils logistiques	P. BERTRAND (DI)	M. BLEROT (DI)	ouvert à toutes les DG
. User Committee Sei-Leg	M. FANALS (SG) / LEONARD(DI)	M. FANALS(SG) / J. LEONARD(DI)	ouvert à toutes les DG
<b>COMITES DE SUIVI DE PROJET DE SOUS TRAITANCE COMMUNE</b>			
. Central call dispatch	M. De Backer (DI)	M. De Backer (DI)	À déterminer
. Formation bureautique	M. Gritsch (DI)	M. Gritsch (DI)	DG 10
. Local call dispatch	M. De Backer (DI)	M. De Backer (DI)	DG utilisant ce contrat
. Support PC commun	B. Thysebaert (DI)	B. Thysebaert (DI)	DG utilisant ce contrat
<b>PRODUCT MANAGEMENT</b>			
. Equipements et systèmes d'exploitation	J.P. LAMBOT / P. HIRN	J.P. LAMBOT / P. HIRN	ouvert à toutes les DG
. Réseaux et protocoles	K. DE VRIENDT (DI) / W. BEURMS(DG 3)	K. DE VRIENDT (DI) / W. BEURMS(DG 3)	ouvert à toutes les DG
. Bureautique individuelle et collective	J. PUIG SAQUES(DI) / F. KODECK(SG)	J. PUIG SAQUES(DI) / F. KODECK(SG)	ouvert à toutes les DG
. Infrastructure des systèmes d'information	J. MARIN NAVARO(DI) / J. BUS(DG 13)	J. MARIN NAVARO(DI) / J. BUS(DG 13)	ouvert à toutes les DG
<b>GROUPES</b>			
. Groupe consultatif de préparation du CTI	J. ALVES LAVADO	J. ALVES LAVADO	1, 2, 5L
. EDMS/GED	M. DEASY (DI)	M. KOHL (DI)	3,4,8,9,13,15,16,19,20,OSCE,SCIC,SG
. Groupe de travail formation informatique	M. GRITSCH (DI)		2,10,12,13/B,15,SDT,SJ
. Groupe de travail harmonisation des procédures	M. GRITSCH (DI)		2,10,12,13/B,15,SDT,SJ
. Libéralisation des télécoms	R. KROMMES / F. PEITGEN	R. KROMMES / F. PEITGEN	3, 4, 9, 13, SG
. Project management	C. PEARE (DG 06)	T. GRÖMER (DI)	4,6,12,18,19,21,SG
. Sécurité	M. BREMAUD (BS)	M. BREMAUD (BS)	5/L,6,8,14,16,19,21,OPOCE,OSCE
. SNET	M. JORTAY		ouvert à toutes les DG
. Systèmes Administratifs Institutionnels	D. DEASY / J. LEONARD	D. DEASY / J. LEONARD	9, 19, SG
. Year 2000 and Euro compliance	C. PEARE / W. HEYER	C. PEARE / W. HEYER	ouvert à toutes les DG

[1] la DI participe à tous les Comités et Groupes

# Calendrier

28/98

concernant la coopération entre la DI et les DG / SERVICES

30.07.98

**COMITES**

16.09.98	13H00-15H00	VID BREY	Comité de Coordination pour la Standardisation
16.09.98	15H00-17H00	VID BREY	Cellule Evolution Stratégique
30.09.98	10H30-17H00	CCAB	Comité Technique Informatique
14.10.98	11H00-13H00	VID BREY	Comité de Coordination pour la Standardisation
21.10.98	15H00-17H00	VID BREY	Cellule Evolution Stratégique
04.11.98	10H30-17H00	CCAB	Comité Technique Informatique
11.11.98	11H00-13H00	VID BREY	Comité de Coordination pour la Standardisation
25.11.98	15H00-17H00	VID BREY	Cellule Evolution Stratégique
09.12.98	10H30-17H00	CCAB	Comité Technique Informatique
13.01.99	11H00-13H00	VID BREY	Comité de Coordination pour la Standardisation
10.02.99	11H00-13H00	VID BREY	Comité de Coordination pour la Standardisation
10.03.99	11H00-13H00	VID BREY	Comité de Coordination pour la Standardisation
14.04.99	11H00-13H00	VID BREY	Comité de Coordination pour la Standardisation
12.05.99	11H00-13H00	VID BREY	Comité de Coordination pour la Standardisation
16.06.99	11H00-13H00	VID BREY	Comité de Coordination pour la Standardisation

**GROUPES**

(1)	31.08.98	10H00-12H00	IMCO 3/21	NT-Cluster workgroup
(1)	15.09.98	14H00-17H00	JECL 7/1A	Groupe de travail GED
	16.09.98	10H00-12H00	JECL 8/22	Groupe de travail «Formation Informatique»
	21.10.98	10H00-12H00	JECL 7/1	Groupe de travail «Formation Informatique»
	18.11.98	10H00-12H00	Lieu à confirmer	Groupe de travail «Formation Informatique»
	16.12.98	10H00-12H00	Lieu à confirmer	Groupe de travail «Formation Informatique»

**« PRODUCT MANAGEMENT » ET REUNIONS DE TRAVAIL ASSOCIEES****PRESENTATIONS / DEMONSTRATIONS / SEMINAIRES / WORKSHOPS**

(3)	16au17.09.98	10H00-17H00	JECL 7/	Réunion pour les LSA
(1)	18.09.98	10H00-13H00	A confirmer	Datawarehousing : présentation par NCR
	22.09.98	14H30-	JECL 7/	Workshop : Clôture et Schémas Directeurs
	23.09.98	14H30-	Lux WAG C4	Workshop : Clôture et Schémas Directeurs
(2)	24.09.98	14H30-17H30	CCAB	From System Management to Enterprise Management

(1) Nouvelle action

(2) Audience : les IRM, les Chefs d'Unité et adjoints, les Chefs de Section et adjoints de la DI ; les personnes impliquées dans les projets dans le domaine

(3) Réunion annulée ; une autre date sera communiquée

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**Contributions:** à envoyer à F. ROSSA JMO C2/82  
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