

L'IBM i ne meurt jamais



common Romandie

3 Novembre 2015

Modernize
Discover strategies and solutions
for Enterprise IBM i Modernization!



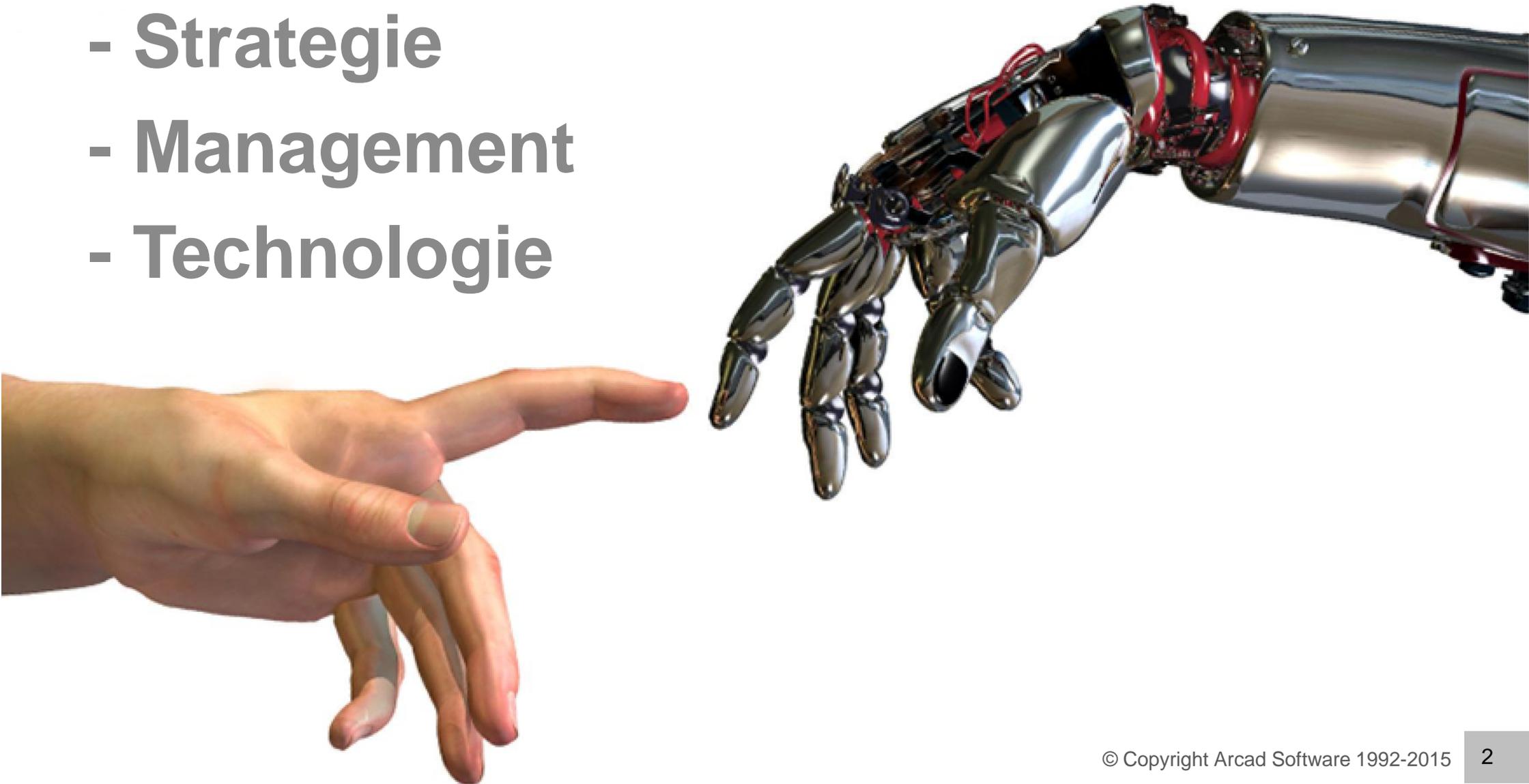
Join our Modernization Seminar, today! [SIGN UP](#)



L'IBM i ne meurt jamais



- Strategie
- Management
- Technologie





Strategie

Pourquoi moderniser ?



1. Nous devons réussir la transition digitale
 2. Nous devons réussir la transition générationnelle
- => Nous devons:

Moderniser !

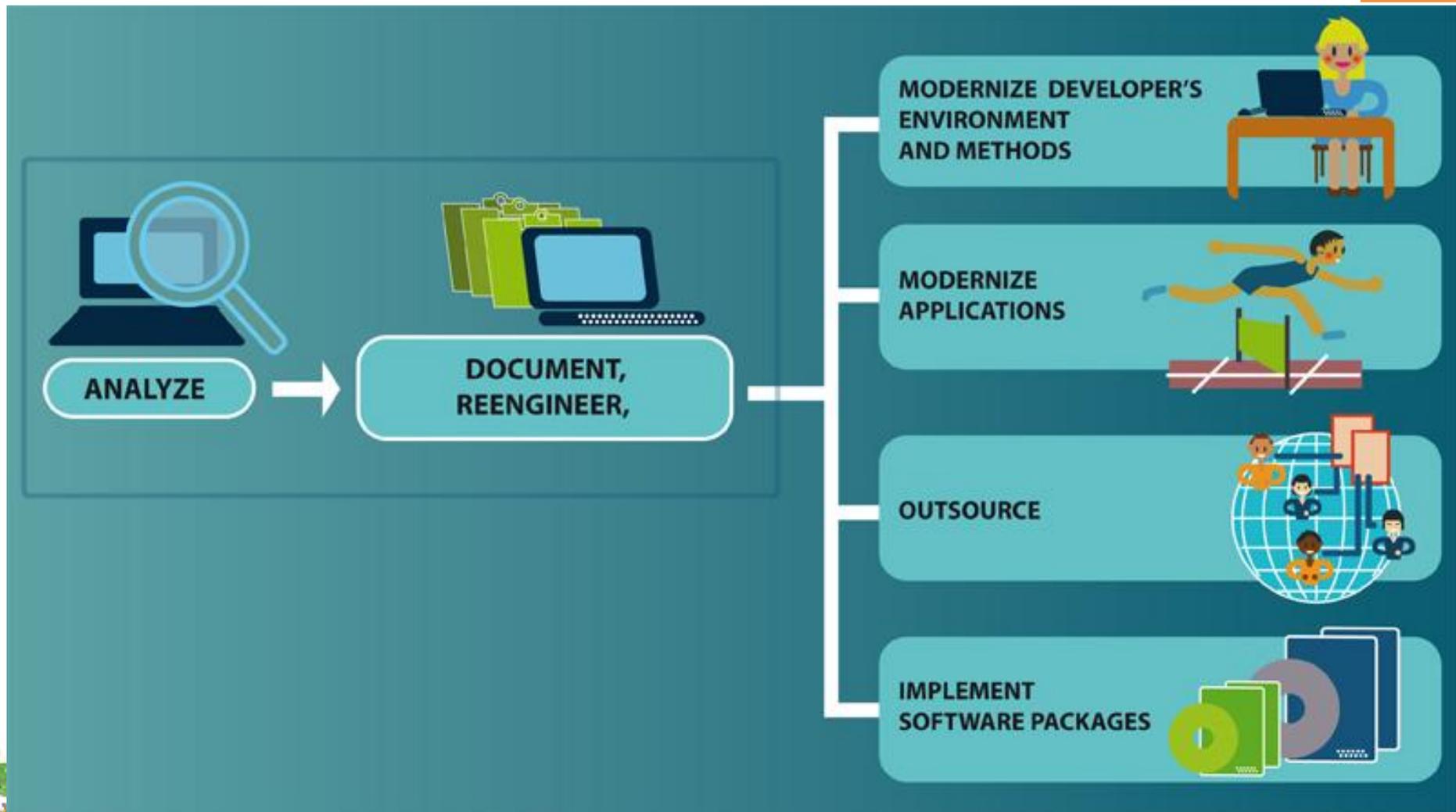


- Des décisions à prendre MAINTENANT
- Il y a mieux à faire que tout remplacer
- Les technologies ont évolué
 - Le Screenscraping est (presque) mort
 - Technologies full natives

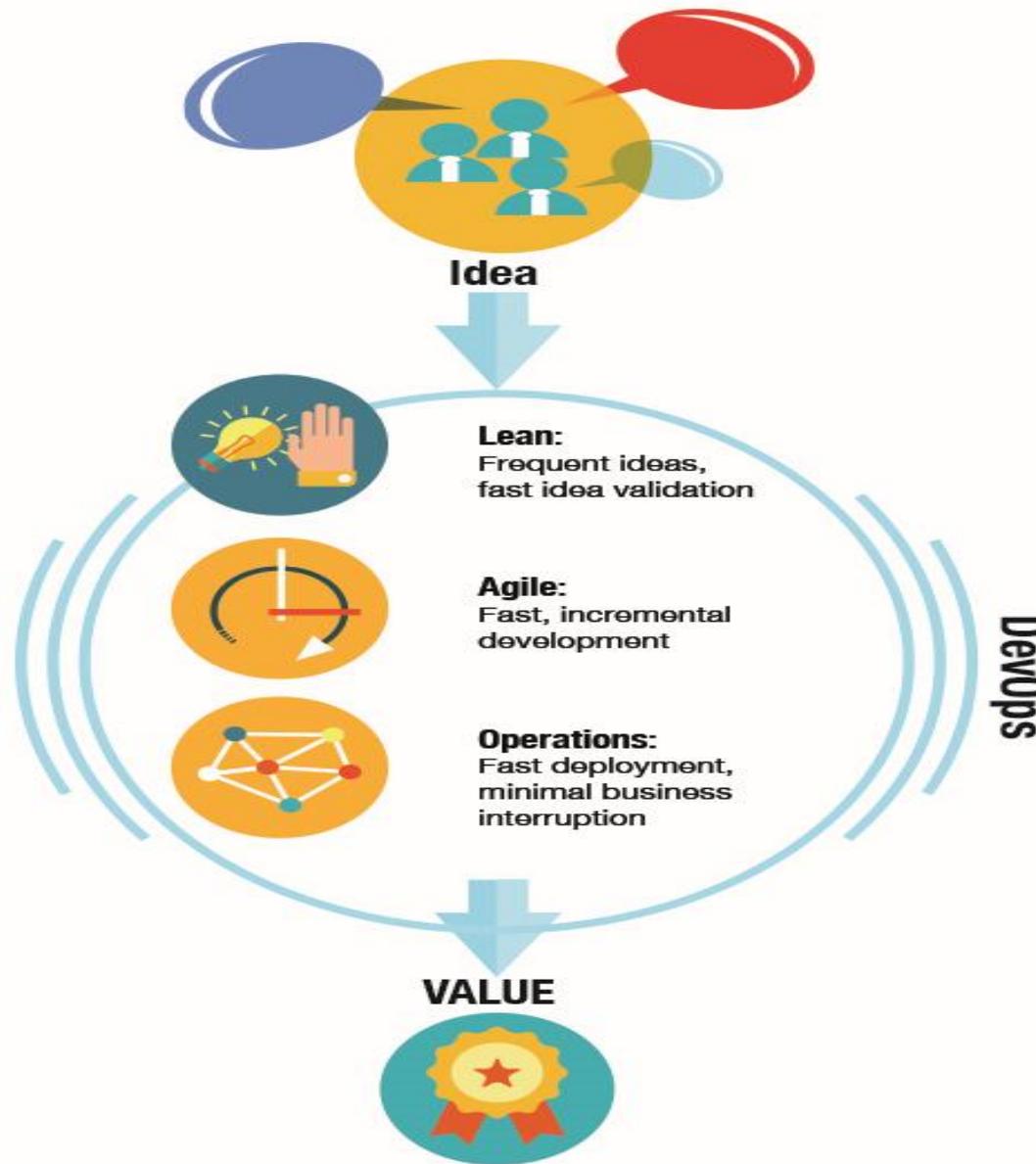
... Simple comme 1,2,3...



Etapes stratégiques



Adopter une stratégie DEVOPS



Stratégie DEVOPS



ACCELERATE
software
delivery



BALANCE
speed, cost,
quality
and risk



REDUCE
time
to customer
feedback

Transformer: 2 stratégies à conduire en parallèle



- Court terme: l'interface
 - « Screen scrapers »
- Long terme
 - Architecture 3-tiers (Modèle MVC)
 - Modernisation base de données
 - Modularité du code
 - Front end graphique/mobile/web/web services



Modernisation: Dimension managériale



Equipes existantes



- Quelle est leur vraie valeur ajoutée pour l'entreprise ?
- Peut-on les convertir?
- Comment les faire participer au mouvement?



Trouver de nouvelles ressources



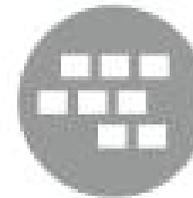
- Recruter de jeunes développeurs =>
 - Environnement de développement moderne
 - Langage Moderne
 - Projets "Innovants" pour l'entreprise





Technologie

1 Analyse

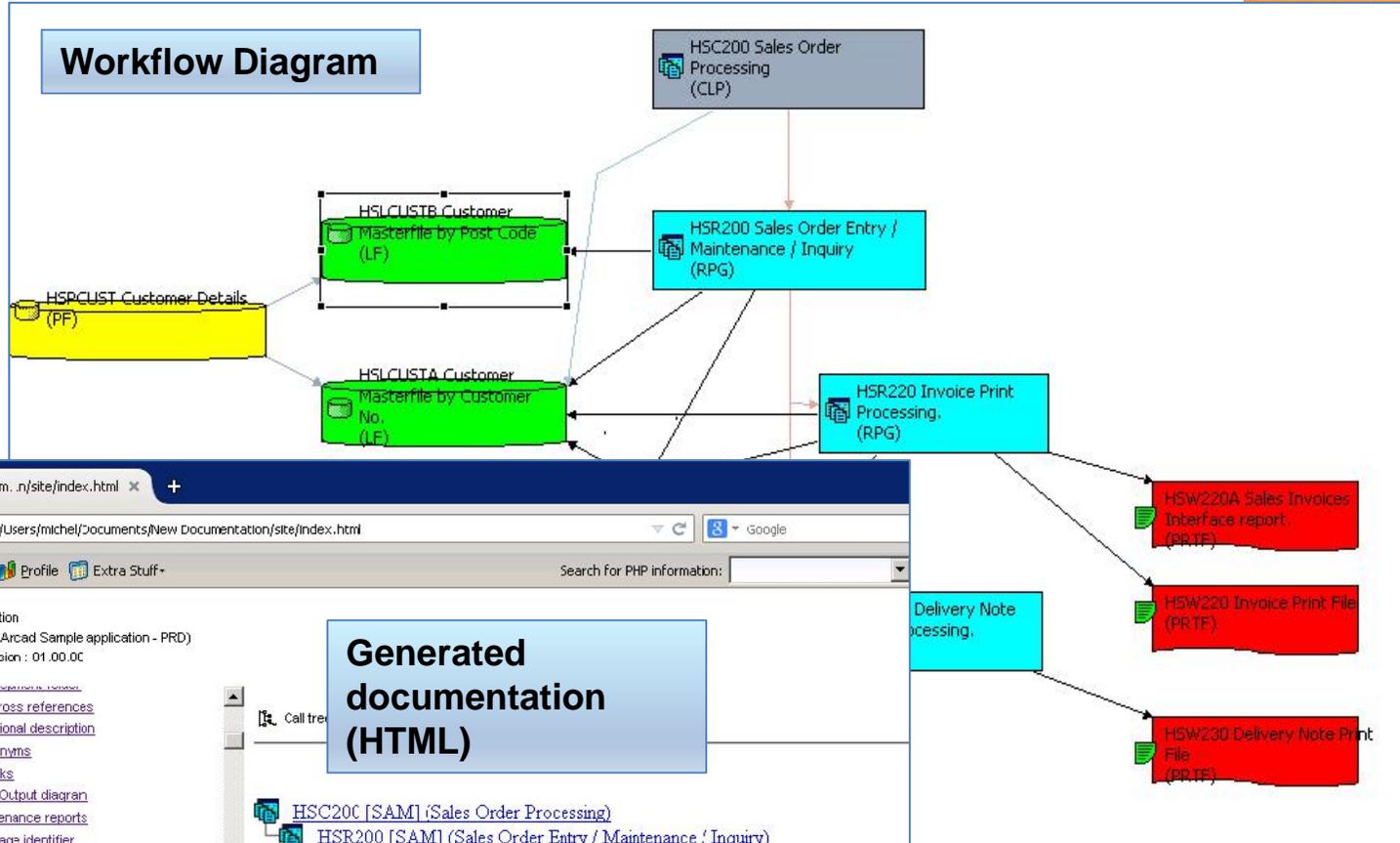


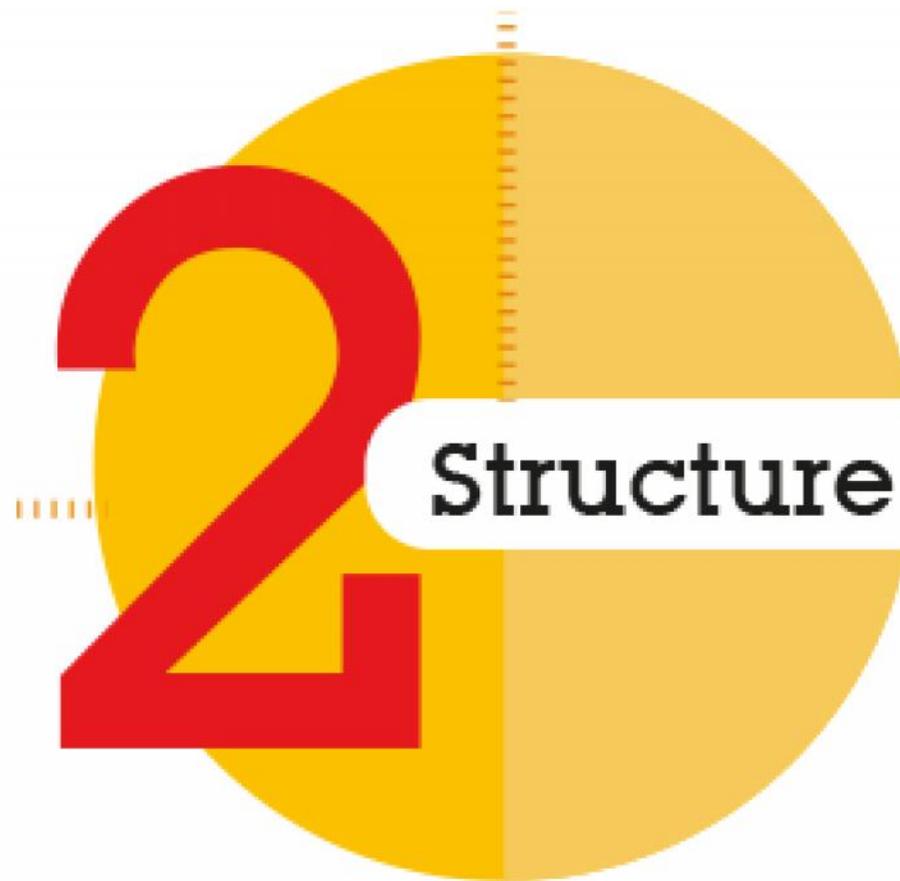
ARCAD-Observer



ARCAD Navigator

- PSPWDEMO
 - Applications
 - ARCADDB (ARCAd Database)
 - SAM (Arcad Sample applic:
 - Repository
 - Components
 - Fields
 - Procedures
 - Literals
 - Database relat
 - IFS directories of t
 - Environments
 - D [*DEV] (Arcad
 - Versions
 - V 1.00
 - Versions (l
 - IFS directo





2 Structure



Adopter RDi



```
dhgax3.torolab.ibm.com - PuTTY
On failure 0 is returned.
long CFSUtils::DirGetFirstFile(const char *dirpath, char *filename, int maxfile
(ame)
{
    long handle = 0;
    char *dirpathbuff;
}

Session A - [24 x 80]
Columns . . . : 6 76          Edit          YANTZI/QRPGLSRC
SEU=>          ORDENTR
FMT *          *. 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7 ...+.
***** Beginning of data *****
0001.00
0002.00 *-----
0003.00 *
0004.00 * Program: ORDENTR
0005.00 *
0006.00 * This program allows a user to enter and confirm an order. It sends
0007.00 * a print request to a batch job via a data queue. The program only
0008.00 * handles District 1 and Warehouse '0001'.
0009.00 *
0010.00 * Don was here
0011.00 *
0012.00 * INDICATOR USAGE:
0013.00 * 03 - F3=Exit
0014.00 * 04 - F4=Prompt
0015.00 * 06 - F6=Accept order
0016.00 * 12 - F12=Cancel

F3=Exit  F4=Prompt  F5=Refresh  F9=Retrieve  F10=Cursor  F11=Toggle
F16=Repeat find  F17=Repeat change          F24=More keys
(C) COPYRIGHT IBM CORP. 1981, 2005.
MÁ a MW 02/009
```

```
Remote System Explorer - RemoteSystemsTempFiles\DBGAX3\home2\yantzi\demo\ftps\csrc\FSURLs.cpp - IBM Rational C/C++ and COBOL Development Tools for AIX

Remote Systems: Team
Files
  My Home
  debug_engine
  demos
  CDemoProject
  COBOLProject
  ftps
  basiftpd
  core
  indftpd
  ftpserver.pdms
  qpl.kmcs.txt
  Root
  rdt-server
  Resouce_C_De
  source
  test_all
  Root
  /
  Processes
  AllProcesses
  MyProcesses
  ps
  sh
  Shells
  AIX Development

Properties: /home2/yantzi/demo/ftps
Canonical Path /home2/yantzi/demo/ftps/Makefile
Classification arc4.txt
Extension
Filter string /home2/yantzi/demo/ftps/*
Group staff
Hidden No
Last modified November 19, 2009 10:41:36 AM
Location /home2/yantzi/demo/ftps
Name Makefile
Number of children 0

FSURLs.cpp
// Gets information about a file.
// [in] filepath : Path to the file.
// [out] infoptr : Structure containing the file information.
// Return: On success 1 is returned. 0 is returned if there was an
// error accessing the file or the file does not exist..

int CFSUtils::GetFileStats(char *filepath, feutilsFileInfo_t *infoptr)
{
    int len, flaglashend = 0;

    if (filepath == NULL || infoptr == NULL)
        return(0);

    //remove any trailing slashes if necessary
    len = strlen(filepath);
    if (len > 0) {
        if (*(filepath+len-1) == '\\') || *(filepath+len-1) == '/' {
            //only remove the trailing slash if it is not the only slash
            if (strcmp(filepath, "\\") != *(filepath+len-1) && strcmp(filepath, "/"))
                flaglashend = 1;
        }
        else {
            return(0); //the filepath is empty
        }
    }

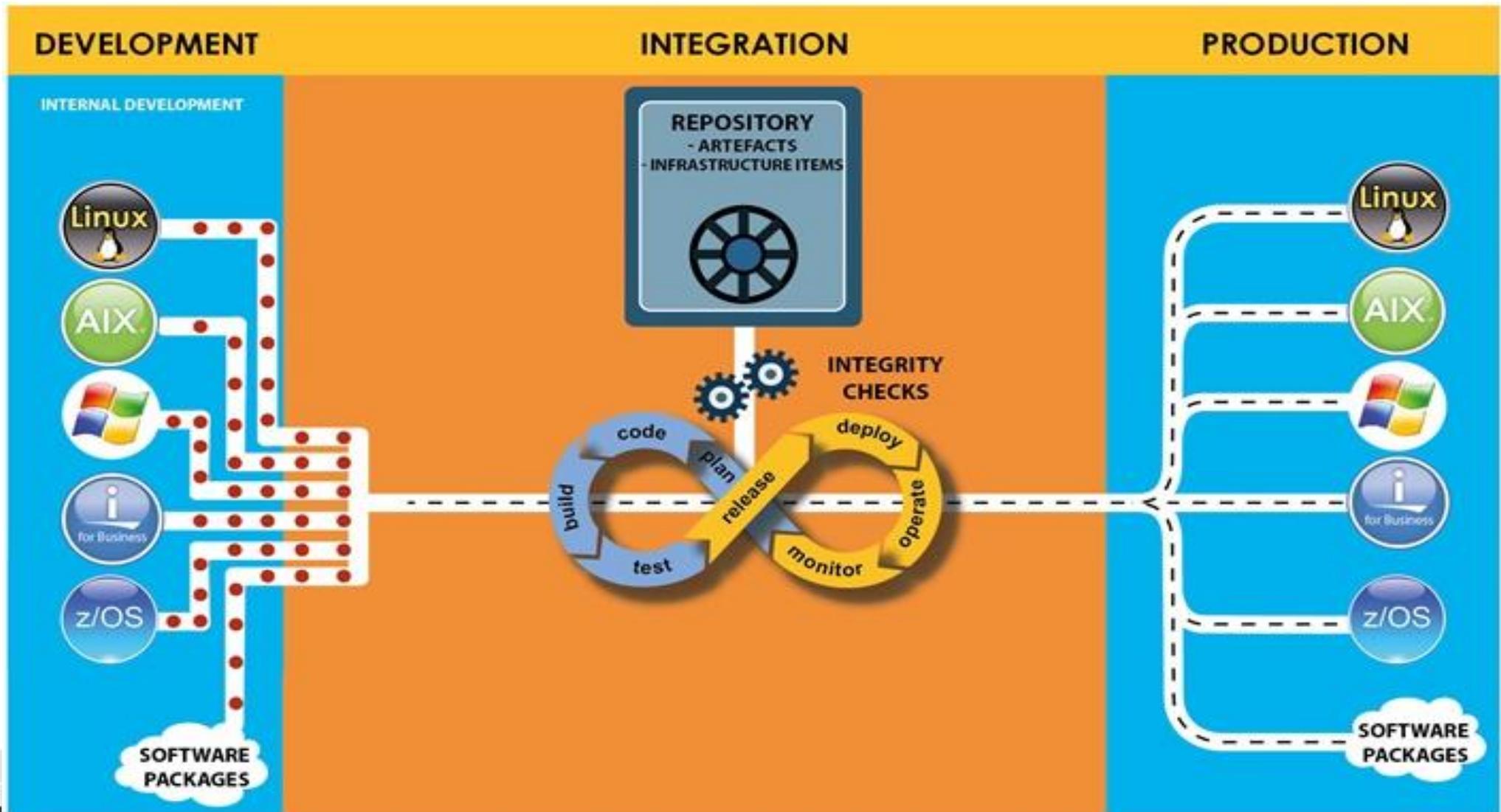
    return(0); //the filepath is empty
}

Remote System Details: Tasks Remote Shell:
AIX Development Box:
cd ftps
ls -la
total 136
drwxr-xr-x 5 yantzi staff 4096 Dec 03 15:09 .
drwxr-xr-x 5 yantzi staff 256 Dec 08 11:10 ..
-rw-r--r-- 1 yantzi staff 10018 Dec 03 15:09 cproject
-rw-r--r-- 1 yantzi staff 2972 Dec 03 15:09 cproject

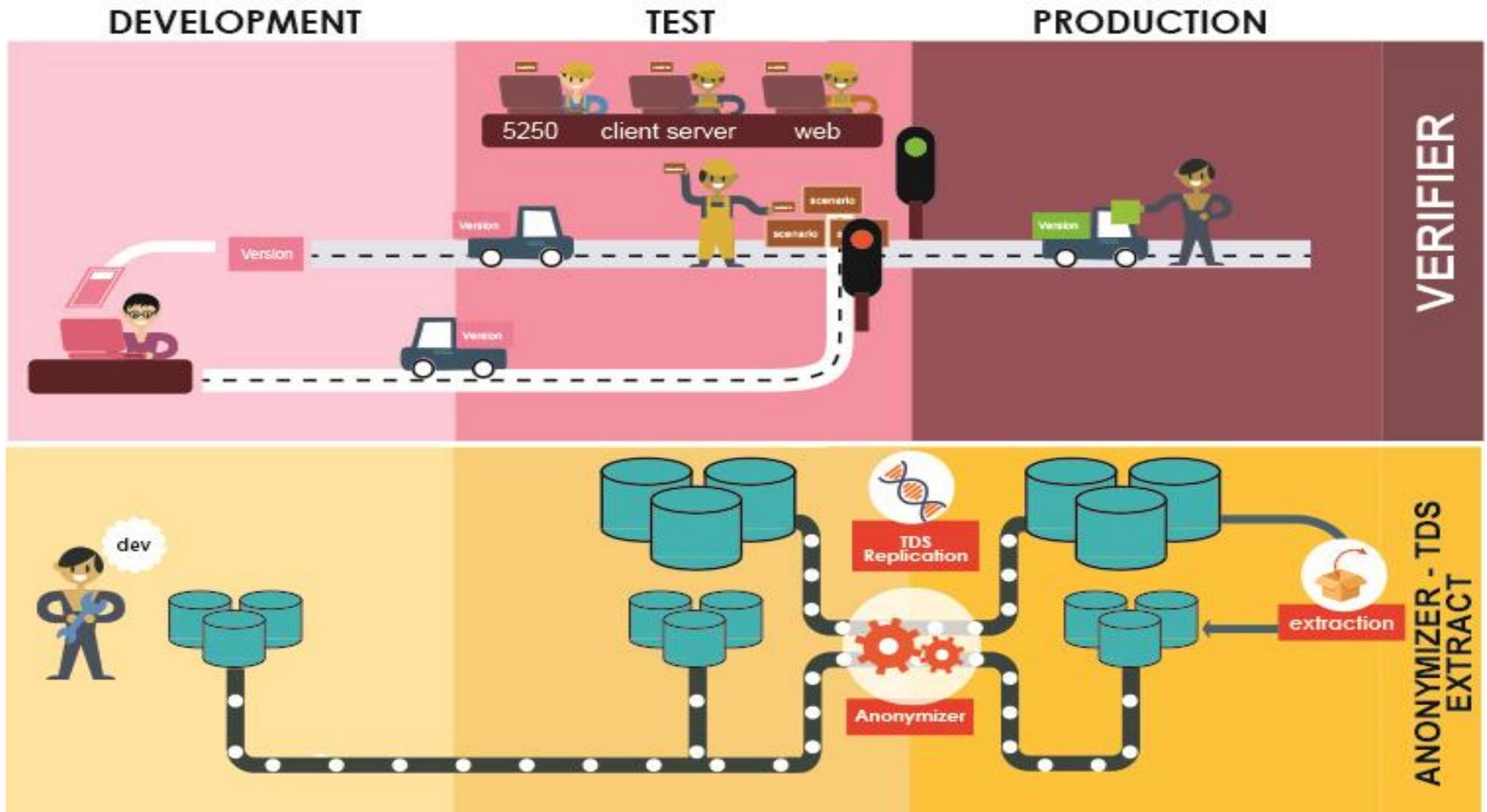
Command
```



Implementer une stratégie DEVOPS



...incluant l'automatisation des tests

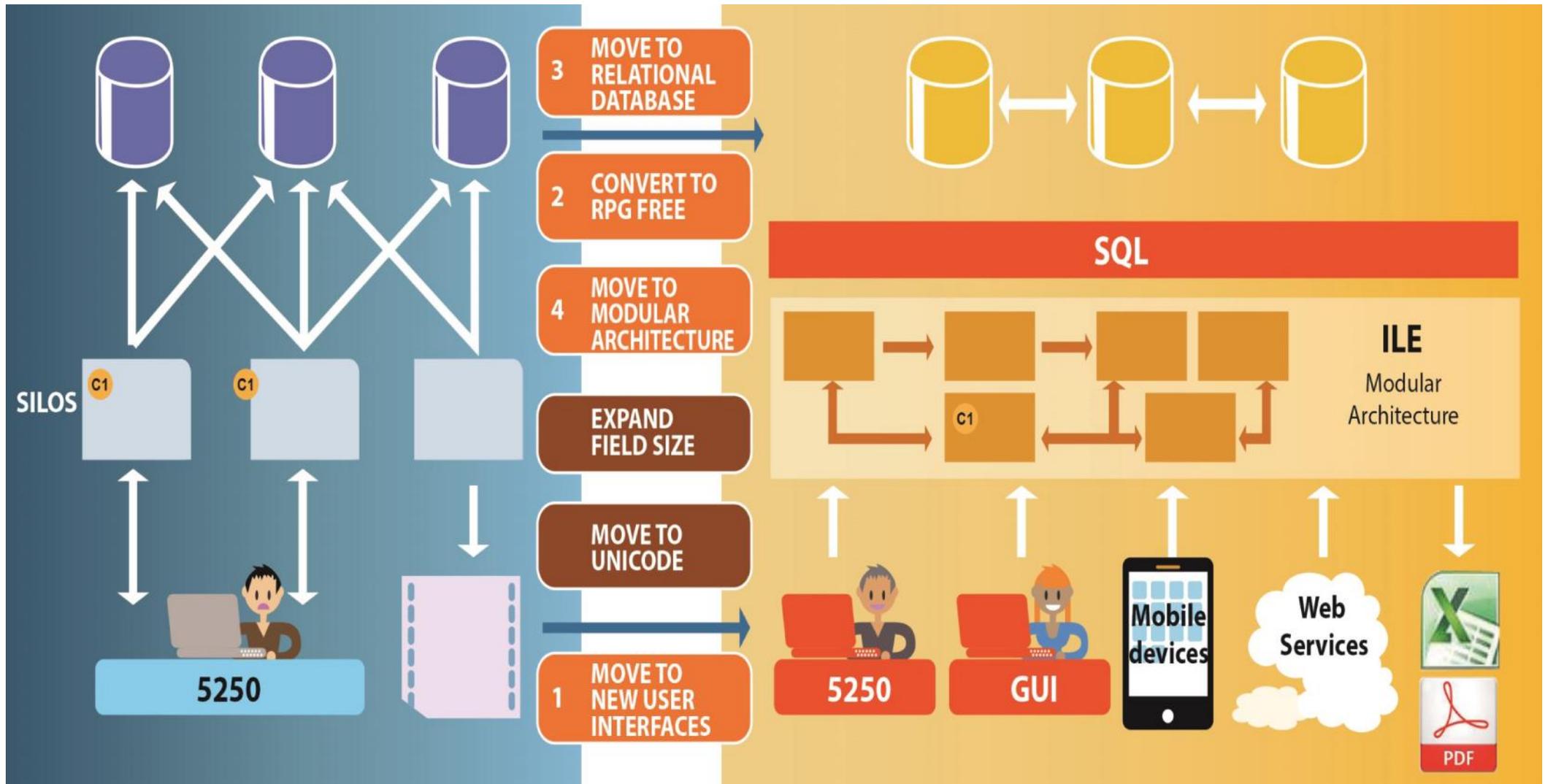




3 Transform



Modernisation d'applications



Profound + Arcad = end to end modernization toolset



Migrer vers une base de données relationnelle



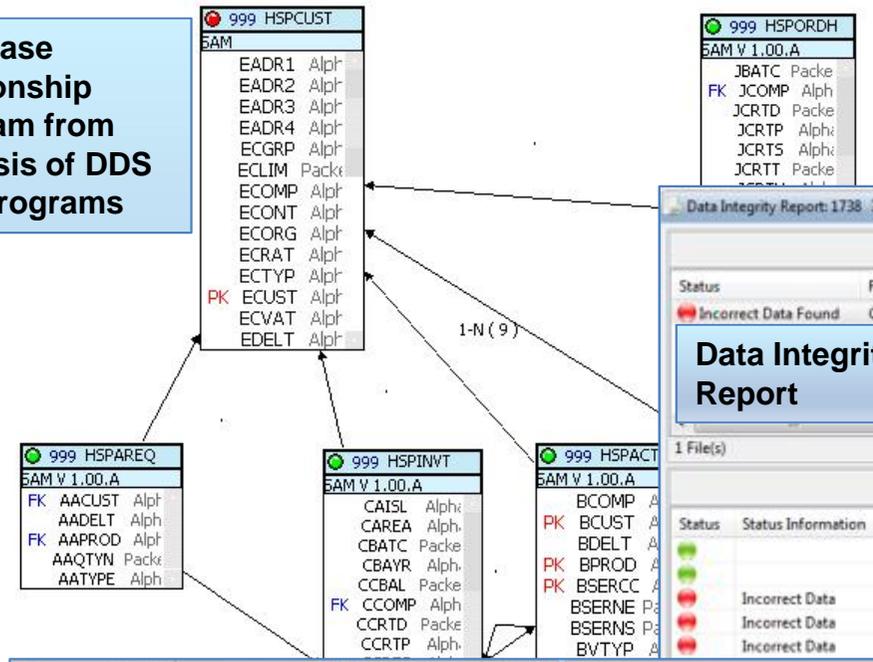
- **Performances**
- **Sécurité**
- **Intégrité**



Migrer vers une base de données relationnelle



Database relationship diagram from analysis of DDS and programs



Data Integrity Report: 1738

List of the files				List of the records			
Status	File Name	Member Name	Description	Status	Record #1	Program	
Incorrect Data Found	CO_BLACK	CO_BLACK		Incorrect Data Found	5000	Evt:UPD EvtDatTim:2014/03/10 10:44:11 Pgm:C	
Incorrect Data Found				Incorrect Data Found	10000	Evt:UPD EvtDatTim:2014/03/10 10:44:11 Pgm:C	
Incorrect Data Found				Incorrect Data Found	15000	Evt:UPD EvtDatTim:2014/03/10 10:44:11 Pgm:C	
Incorrect Data Found				Incorrect Data Found	20000	Evt:UPD EvtDatTim:2014/03/10 10:44:11 Pgm:C	

Convert DDS file to SQL (ACVTDDSSQL)

File: *LST
 Library: *LIBL
 List: I STTMP
 I library: *LIBL
 Conversion project: *NONF
 Source file: QJSQLSRC
 I library: QJTFMP
 Member: *DBI
 Replace if existing: *NO
 Remove qualified names: *YES
 Warning messages: *YES
 Retrieve comments from DDS: *YES
 Work with shared formats: *YES
 DDS source file: *OBJ
 Library: *LIBL
 Work with references fields: *YES
 Keep CCSIL attribute: *YFS
 Rename the fields: *NO
 File long name: *NONE
 Label on Table/Index generatio: *NO
 Action if PF kev cb: *NONE

Audit and Conversion DDS → DDL (SQL)

Advanced All Parameters Keywords

AEND100500/ACVTDDSSQL FILE(*LST)

Component View

List : TRANSD01W/LSTD0F

Name	Desc.	Src type	Compil. type	A
HSPACTL	Agent Voucher Con...	PF	*PF	TI
HSPAREQ	Agency Sales Input	PF	*PF	TI
HSPCLAM	Claims Input	PF	*PF	TI
HSPCLUST	Customer Details	PF	*PF	TI
HSPINVT	Inventory Transacti...	PF	*PF	TI
HSPORDD	Sales Order Details	PF	*PF	TI
HSPORDH	Sales Order Header	PF	*PF	TI
HSPREF	HSV - Data Dictionary	PF	*PF	TI
HSPSHFO	Ship Only Details	PF	*PF	TI
HSPSINT	Sales Ledger Interf...	PF	*PF	TI
HSPTRAC	Voucher Tracking	PF	*PF	TI

Mass refactoring of applications (DDS/SQL, programs)

Moderniser le langage RPG

A photograph of two men shaking hands. The man on the left is older, with grey hair and glasses, wearing a dark polo shirt. The man on the right is younger, wearing a blue t-shirt. The background is a light green with abstract shapes.

**Breaking barriers
between generations**

Convert RPGLE to Free Format RPG,
automatically - with ARCAD-Transformer RPG

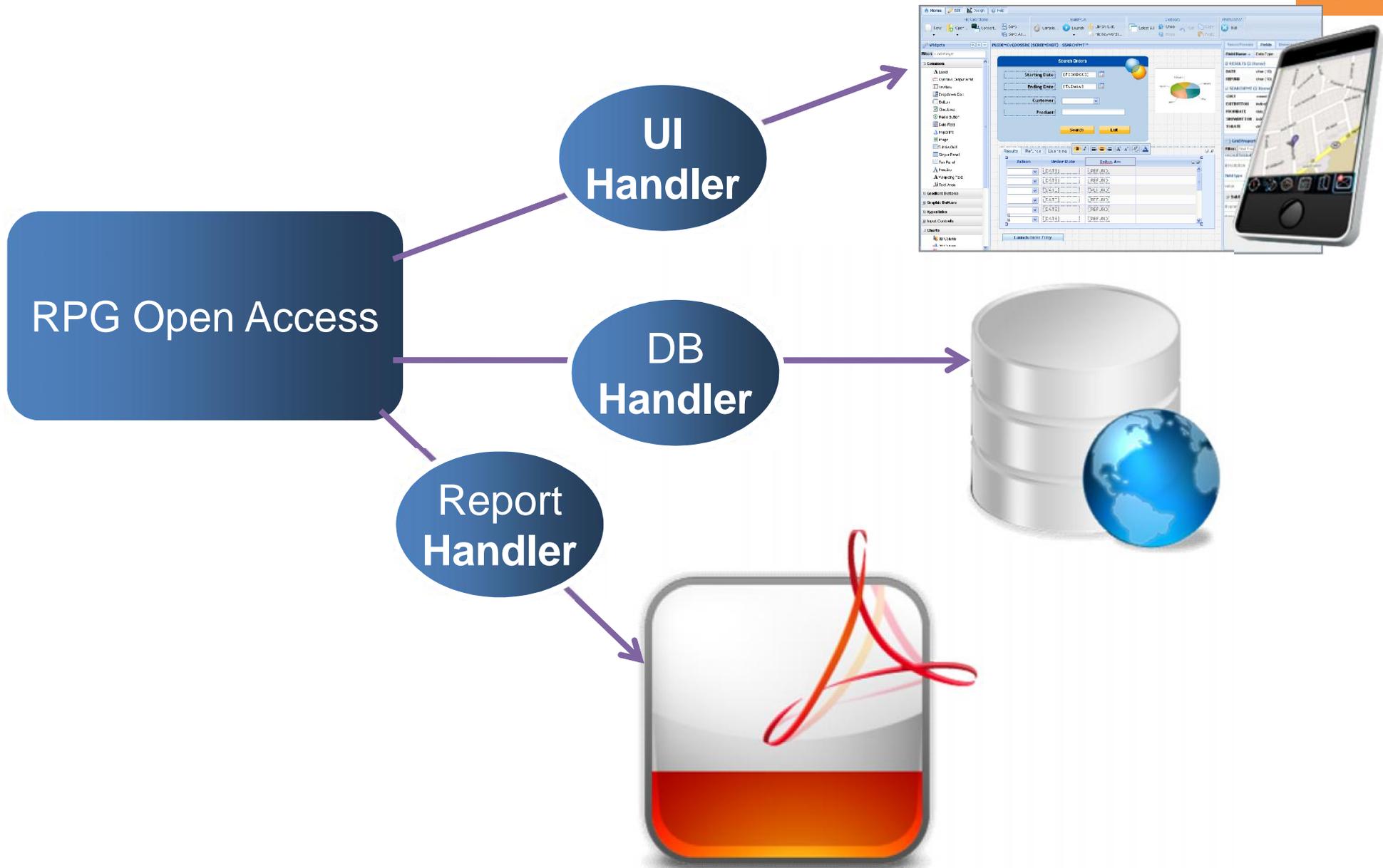
*We speak
the same language:*
Free Form RPG

Nouveauté: ARCAD-Tranformer Case tool



- Migrer depuis:
 - CA/2E
 - ADELIA
- ...Vers du RPG free form optimisé

RPG Open Access

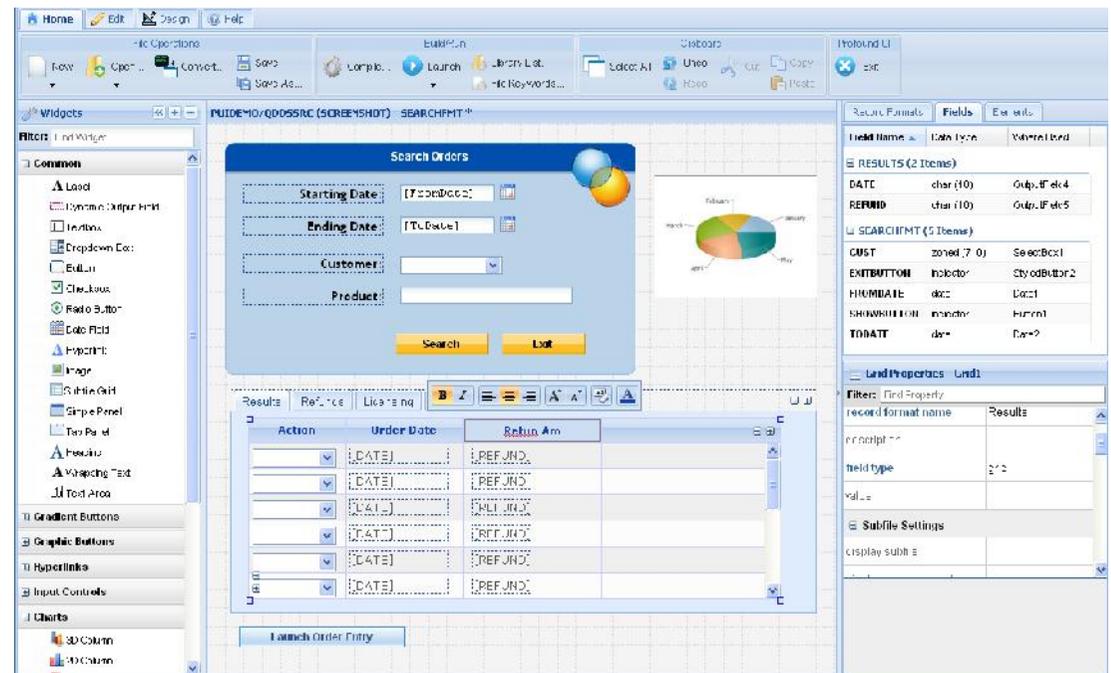


Profound UI Visual Designer



Visual Designer

- Easy-to-use HTML5 visual design interface for IBM i
- 100% IBM i hosted
- Compliant with Web and IBM i development standards
- Compatible with native RPG operations, as well as Java/PHP
- Supports all browser types
- Supports both Web and mobile applications



Développement avec Profound UI



Web	Hybrid w/ Mobile Client	Hybrid w/PhoneGap
<ul style="list-style-type: none">- Mobile-enabled applications that work in any device/browser- Easy deployment of 5250 applications- Does not support native capabilities (Camera, etc)	<ul style="list-style-type: none">- Profound UI Mobile Client makes deploying iPhone/iPad/Android applications easy- Develop native applications without worry of app store approval or 3rd party tools	<ul style="list-style-type: none">- Deploy mobile apps with native capabilities without learning 3rd party languages- More control over application branding and submitting to app stores



Profound UI en action



TRAPLUS
Le logiciel co-pilote de vos transports

User: Bruno HAJJAR Settings Aplus Changer d'agence Outils Add to Favorites Exit

Accueil Traplus Affectation par traitement global sur dossier

AFFECTATION POSITIONS SUR DOSSIERS PH / PH TRDEPM

Dossier 20440 (DIST - / EPERNAY)

Véhicule PF 0002 Livraisons 20 Poids livraison 3.564
 Conducteur HEMINGWAY Ramasses Poids ramasse
 Chargement 101% Colis 53 U.M. 23
 C.A. 816,48 Palettes 15 U.L. 18,200

Correspondant	Récépisé	Act	Expéditeur	Destinataire	Dp	Localité	Pal	UM	Coll	Poids
50005	11193	M	DEFILM	DIOT	51	AVIZE	1	1	1	122
50005	11194	M	DEFILM	ROBARTS	51	AVIZE	1	1	1	124
50005	11196	M	DEFILM	TRIBOUILLOIS	51	AY	2	2	2	412
50005	11197	M	DEFILM	THIEBAULT	51	CHOUILLY			6	89
50005	11195	M	DEFILM	GILLARD	51	AVIZE	1	1	1	222
50005	11198	M	DEFILM	GARAGE	51	DAMERY	1	4	4	45
50005	11199	M	DEFILM	SPARNACIEN	51	DIZY	2	2	2	24
50005	11200	M	DEFILM	NDAUTO	51	DIZY	1	4	4	56
50005	11201	M	DEFILM	VARLET	51	DIZY	1	10	10	87

Dossier 30440 (DIST - / CHALONS EN CHAMPAGNE)

Véhicule PF 0004 Livraisons 8 Poids livraison 2.192
 Conducteur MAUPASSANT Ramasses Poids ramasse
 Chargement 49% Colis 21 U.M. 21
 C.A. 461,36 Palettes 8 U.L. 8,800

Correspondant	Récépisé	Act	Expéditeur	Destinataire	Dp	Localité	Pal	UM	Coll	Poids
50005	11213	M	DEFILM	CENTRE LECL	51	FAGNIERES	2	2	2	841
50005	11214	M	DEFILM	ANDREA	51	FAGNIERES	5	5	5	23
50005	11215	M	DEFILM	F M S	51	VERZENAY	4	4	4	78
50005	11216	M	DEFILM	F M S	51	VERZENAY	1	1	1	26
50005	11217	M	DEFILM	LADOUCE	51	VERZENAY	3	3	3	25
50005	11159	M	DEFILM	CORA REIMS	51	REIMS	3	3	3	753
50005	11161	M	DEFILM	DECATHLON	51	REIMS	2	2	2	257
50005	11169	M	DEFILM	A L'AIGUILLE	51	BETHENY	1	1	1	189

Mes dossiers Dossier

Dossier	Clé	Départ
10440	DIST -	
20440	DIST -	
30440	DIST -	
40440	DIST -	
10441	DIST -	

Exporter vers Excel

Liste des positions à affecter

Filtres des positions à affecter

Dossiers Région / Tournée /

Activité Nature de transport

Client Tournée de distribution Oui Non Tout

Correspondant Date d'expédition du au

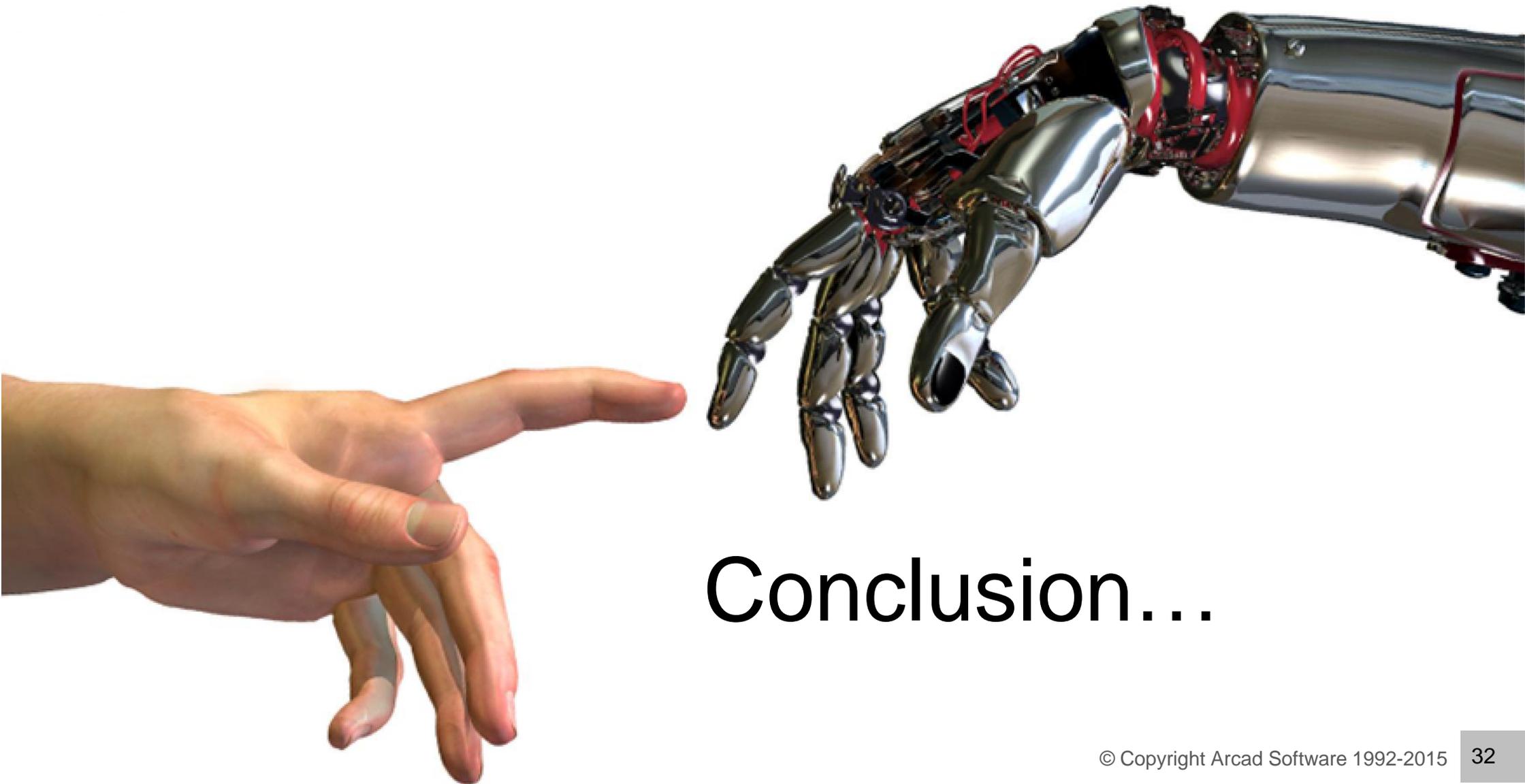
Destinataire NOM Pays Département Localité

Expéditeur NOM Pays Département Localité

Poids de à Kgs

Liste de chargement

Tout effacer Rechercher

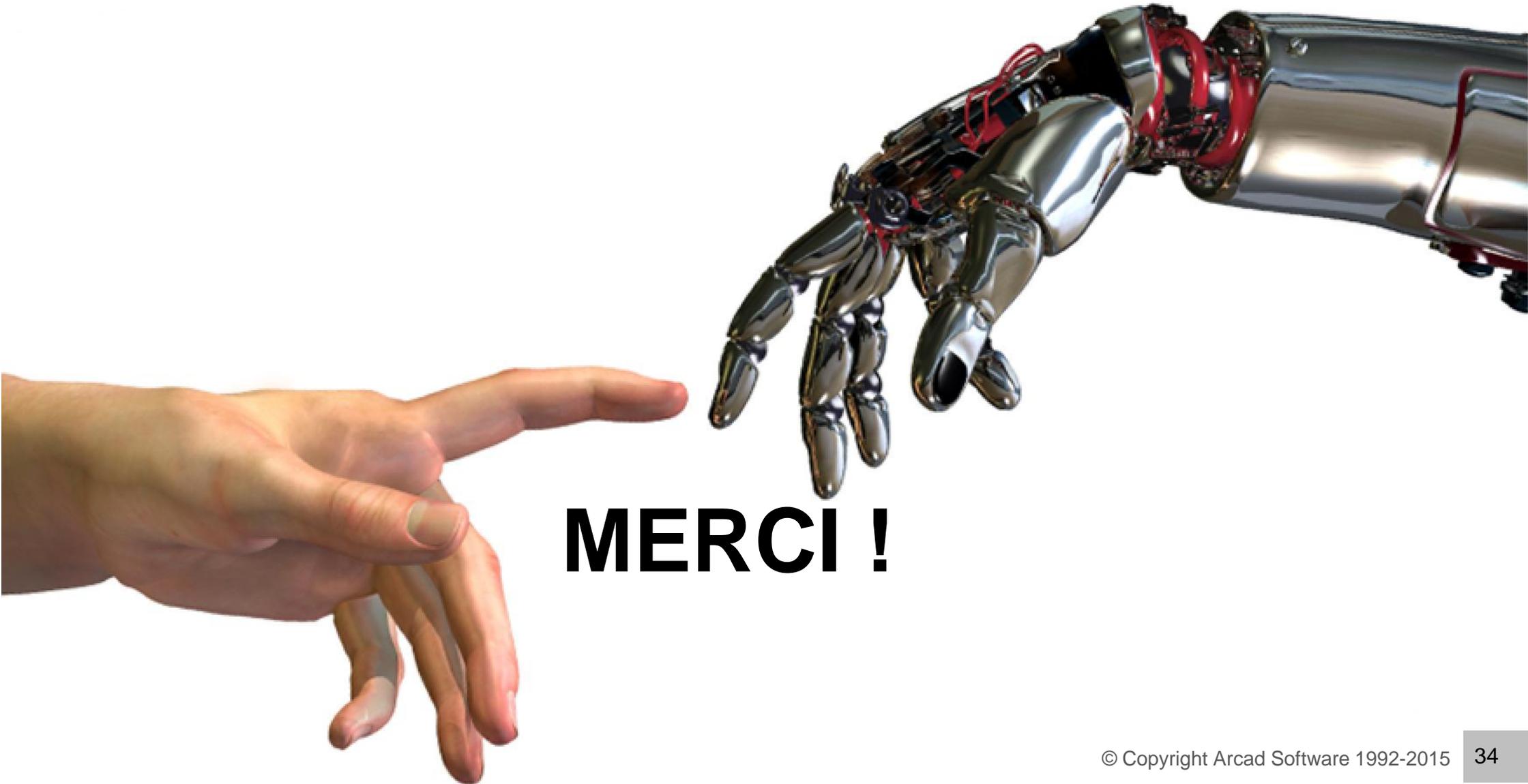


Conclusion...

Conclusion



- Nous sommes entrés dans une nouvelle ère de la modernisation
- Le marché est mature
- La plateforme IBM i est passé de **menace** à **opportunité**



MERCI !