

Oracle Developer Days

Migrare aplicatii client/server spre arhitectura Web pas cu pas

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Consultant Vanzari Tehnologie
Oracle Romania

Agenda

- Oracle Forms descriere generala
- De ce sa migram spre arhitectura web?
- Oracle Forms pe web pas cu pas

Agenda

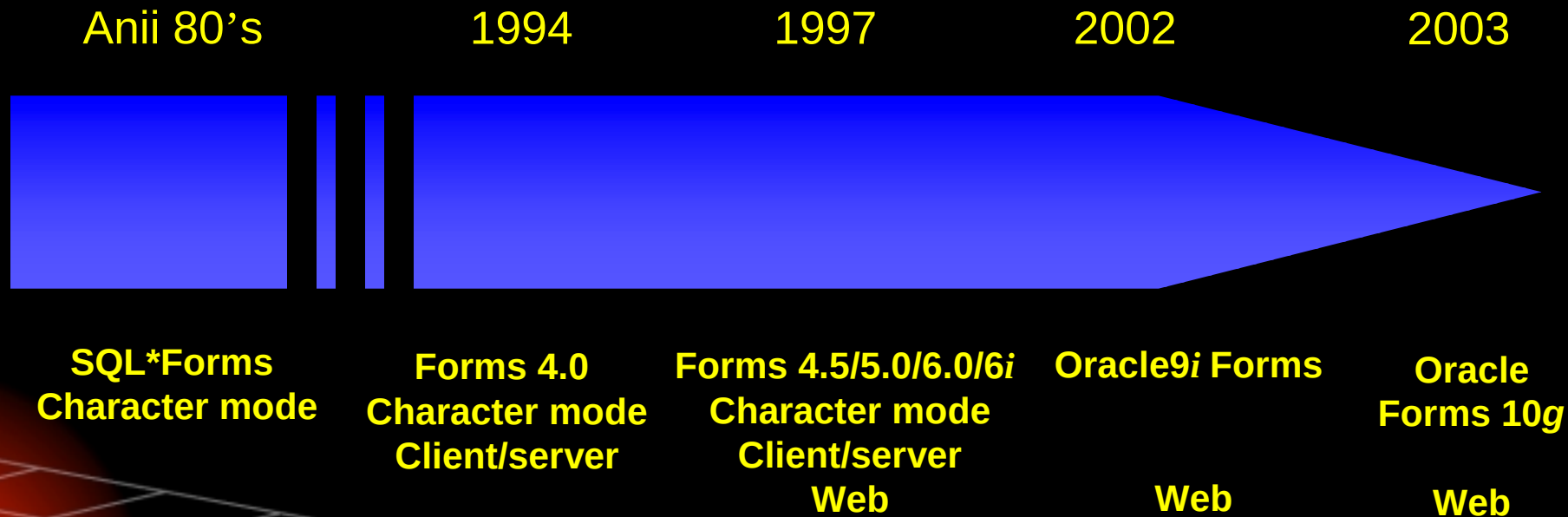
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Oracle Forms: Dezvoltare de aplicatii web rapid si usor

10^g

- RAD (Rapid Application Development)
- Bazat pe limbajul PL/SQL
- Tehnologie deschisa
- Independent de SO ales
- Produs preferat de dezvoltatorii Oracle
- Clienti si dezvoltatori numerosi
- Migrare usoara spre arhitectura Web

Oracle Forms



- Oracle Forms – Acum numai in tehnologia Web
- Oracle Forms Developer licentiat si inclus in Suita de Dezvoltare Oracle
 - AS Forms Services licentiat si inclus in Oracle AS Enterprise Edition, acum si in Forms and Reports Edition

Oracle Forms

Oracle Forms Developer

- Mediu de dezvoltare declarativ, productiv
- Dezvoltare de interfete utilizator Java fara a scrie cod Java
- Integrat cu intreaga suita Oracle
- Mediu de dezvoltare extins acum si de Java

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DEVELOPER SUITE

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Oracle Application Server Forms Services

- Infrastructura Web
- Optimizare trafic de retea
- Supot pentru tranzactii
- Scalabilitate (memorie, load balancing, HA)
- Mecanisme de securitate

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APPLICATION SERVER

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Oracle Developer Suite 10g

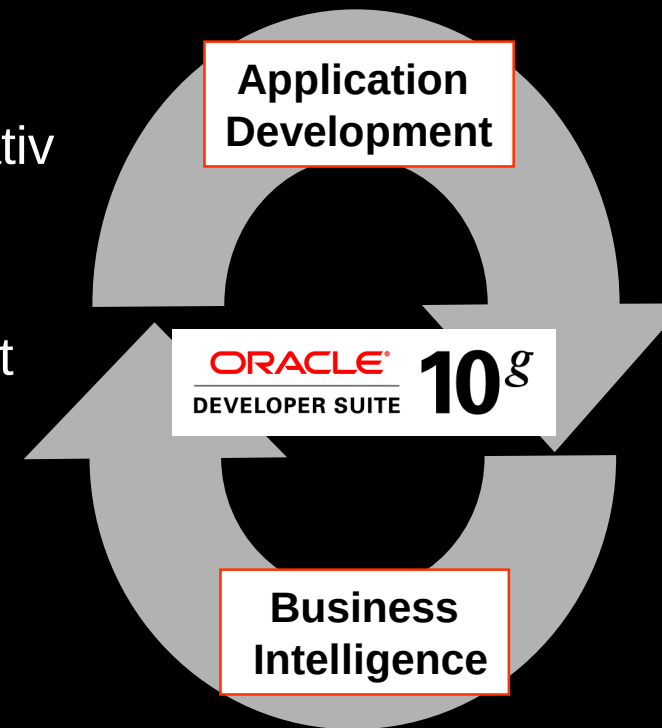
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Dezvoltare de aplicatii

- Forms—Limbaj de generatia 4 (4GL) declarativ
- Designer – Analiza de system si generare
- JDeveloper – Java, XML, Servicii Web
- SCM – Software Configuration Management

Business intelligence

- Reports – Instrument de raportare
- Componente Java Business Intelligence
- Discoverer Admin. – Interogari si analiza multidimensionala
- Warehouse Builder – Extract Transform Load



Oracle Forms

- Sute de mii de dezvoltatori
- O baza de clienti foarte activa
- 7,000+ descarcari de produs de pe OTN lunar
- 1,500+ activitati pe forumul OTN
- Multi clienti ce au migrat deja pe Web
- Suita de aplicatii Oracle (E-Business Suite)

Oracle Forms in viitor

- Se va pune accent pe:
- Integrare
 - In cadrul produselor Oracle si nu numai
- Interoperabilitate
 - Simplificarea interactiunii cu alte aplicatii si Servicii Web
- Productivitatea Dezvoltatorului

Sfaturi pentru Dezvoltatorii de 10^g Forms

- #1: Incercati sa lucrati pe cat posibil cu Oracle Forms 10g
 - functionalitati noi, tehnologie avansata, prietenoasa, mediu productiv
- #2: Avantaj web deployment, asigurat de Oracle Application Server
 - Integrare si beneficii Web
- #3: Integrare Java cu Forms
 - Daca e nevoie sau se doreste
- #4: Utilizati Java cand face sens
 - Atunci cand Forms nu e instrumentul potrivit

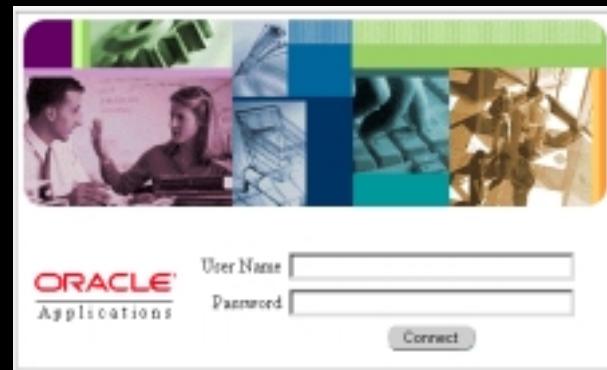
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Timpul potrivit pentru upgrade ^{10^g}

- Technologie matura si imbunatatita
- Experienta vasta
- Succes la clienti demonstrat
- Functionalitati noi numai pe Web
- Application Server Forms&Reports Edition

Nu sunteti primii ...



CMiC

Si de ce sa fiti ultimii ?

Success la HP



“We were able to leverage all the investments we made 5 years ago and seamlessly run our existing applications over the Web.”

- Stefano Fuccio, Project Manager, HP Italy

Oracle Applications

“Daca am adus tehnologia Oracle Forms pe Web suntem primii sa ne migram aplicatiile”



The login screen features a header banner with a collage of images: a green gear, a blue document, a person at a computer, a shopping cart, a hand on a keyboard, and a group of people. Below the banner, the Oracle Applications logo is on the left. To the right are two input fields labeled 'User Name' and 'Password'. A 'Connect' button is positioned below the password field.

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Applications

User Name

Password

Connect

Ce avem de castigat

- Conservarea investitiei
 - Reutilizarea codului, functionalitati si tehnologie noua Web
- Accesibilitate
 - Acces la aplicatie de oriunde avem un browser internet
 - Intergrarea in portalul companiei si cu alte sisteme
- Costuri de administrare scazute
 - In Client/Server administram toti clientii (instalare Forms runtime, FMX, editare registru)
 - Cu Forms pe Web administram numai serverul de Aplicatii
 - Oracle Internet Directory si, bineinteles, Single Sign-On
 - Administrare centralizata Oracle Enterprise Manager

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Migrare Forms pe Web

Patru categorii de functionalitati:

- Functioneaza diferit pe Web
- Nu functioneaza sau nu au sens pe Web
- Functioneaza dar cu impact major in traficul de retea.
- Dependente de sistemul de operare

Functionalitati ce se comporta diferit pe Web ^{10^g}

Acum Forms ruleaza pe Serverul de Aplicatii server, NU pe client!

- Fncatii built-In
 - HOST
 - ORA_FFI
 - READ/WRITE_IMAGE_FILE
 - TEXT_IO
 - TOOL_RES
 - TOOL_ENV
- User Exits

Ce este WebUtil ?

- Un set de componente Java si API de PL/SQL
- Misiunea pachetului WebUtil:
 - Sa asiste migrarea functionalitatilor client/server pe Web
 - Plus de capabilitati pentru aplicatiile Web
- Pune la dispozitie
 - Setul de baza de functii Web similare celor client/server
 - Functionalitati similare Client/server → D2KWUtil
 - Functionalitati Web specifice → transfer de fisiere

WebUtil asigura functiile Client/Server pe Web

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- Implementari client/server ale:
 - TEXT_IO
 - TOOL_ENV
 - GET_FILE_NAME
 - HOST
 - OLE2
 - READ / WRITE_IMAGE_FILE
- API-uri compatibile pentru functiile de pe client
 - Doar prefixul "CLIENT_..." este necesar de adaugat
 - Include tratare de exceptii si erori
- Posibilitatea de a alege locatia unde ruleaza: pe client sau Serverul de Aplicatie

Functionalitati in plus

- Transfer de fisiere
- Operatiuni cu fisiere
- Informatii despre masina client
- Comenzi HOST imbunatatite
- API de limbaj C pe client
- O parte din functionalitatile D2KWUtil
- Functii de browser specifice.

Avantaje WebUtil

- Simplu de utilizat
 - Dezvoltatorii utilizeaza in continuare PL/SQL
 - In spate Java
 - OLB si PLL
 - Codul program existent editat simplu cu
 - Search/Replace adaugand CLIENT_
 - Componentele se instaleaza automat
 - Extensibil
- Disponibil pe Oracle Technology Network

Evenimente ce nu functioneaza pe Web ^{10^g}

- Unele evenimente legate de mouse genereaza trafic de retea important si sunt ignorate:
 - WHEN-MOUSE-MOVE
 - WHEN-MOUSE-ENTER
 - WHEN-MOUSE-LEAVE
- Alte evenimente legate de mouse functioneaza la fel
- Se recomanda utilizarea proprietatii tooltip in loc de biblioteca hint.pll
 - Controale ActiveX VBX, OCX
 - Containere OLE, Componente de Sunet si Imagine
- Sunt necesar de Inlocuit cu JavaBeans or Pluggable Java Components (PJC)

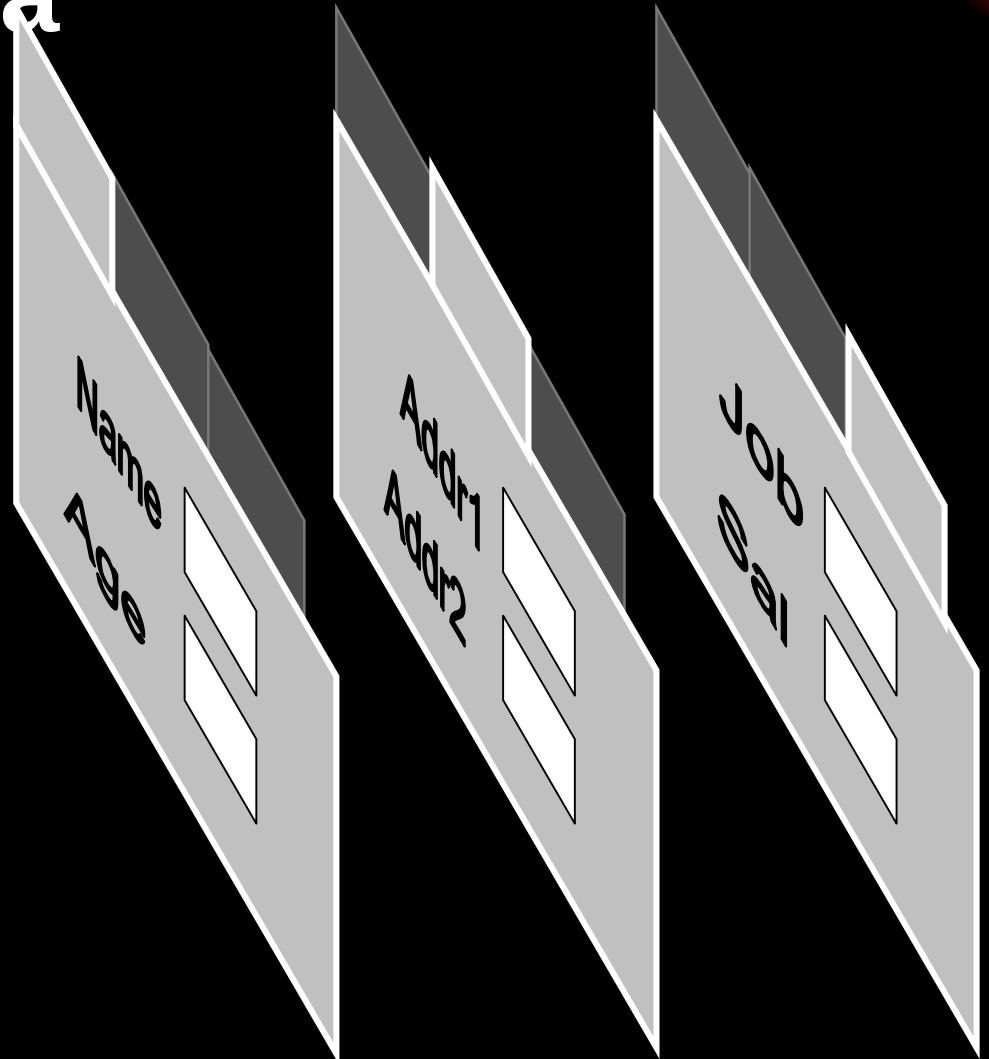
Functioneaza dar cu impact major in traficul de retea

10^g

- **SYNCHRONIZE** Built-In
 - Roundtrip de la client la server
 - Utilizat incorect poate genera trafic de retea
- Timers
 - Componenta de acest tip trebuie revazuta
 - Exemplu
 - 500 utilizatori concurenti -> 500 de apeluri suplimentare pe secunda

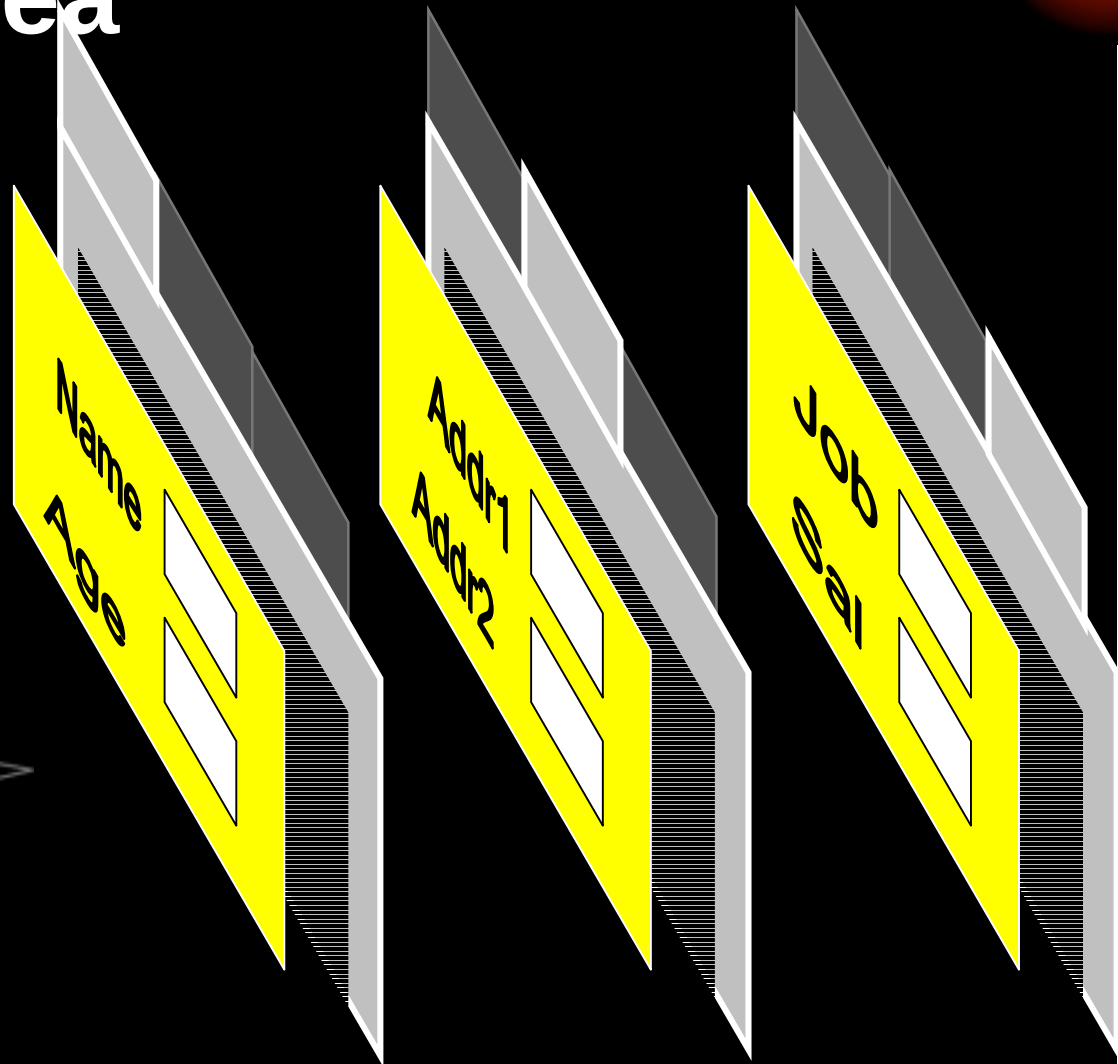
Functioneaza dar cu impact in 10^8 traficul de retea

- Control de tip Tab
- Metadata despre toate Tab-urile sunt descarcate pe client
- Timpul initial de descarcare poate fi mai mare



Functioneaza dar cu impact in 10^g traficul de retea

- Control de tip Tab
- Se pot utiliza panouri ascunse ce sunt activate si ca rezultat descarcate doar la accesare
- Exista posibilitatea de a avea o intarziere la prima deschidere a Tab-ului



Functionalitati dependente de sistemul de operare

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- Iconitele pe Web sunt de tip GIF sau JPG
 - Formatul ICO si XPM sunt suportate in continuare in Forms Builder
 - Functii de tip HOST
 - Comenziile pe Unix si Windows sunt diferite:

```
begin
  host('dir > dirlist.txt'); host('ls -al > dirlist.txt');
end;
```
- Litere mici/mari (Windows/UNIX, Linux)
 - Librarii atasate, grupuri de obiecte, iconite, etc...
- Fonturi
 - Se vor utiliza Fonturi Java

Forms pe Web

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Oracle Forms - Reusable Components - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print View Links

Address http://dcernev-ro.ro.oracle.com:8889/forms90/f90servlet?config=reusable_calendar Go

Google

Links

Oracle Forms 10g (9.0.4) Demos

Oracle Forms Samples

Calendar Reusable Component

Order Id 2458
Order Date 15-SEP-2005
Order Status 0
Order Total \$78,279.60

Date List of Values

September 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OK Cancel

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Opening <http://dcernev-ro.ro.oracle.com:8889/forms90/f90servlet;jsessionid=7f00000122b921dede006b2f4ed6a2b0bfba81626cc7>

Local intranet

Forms pe Web

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Oracle Forms - Reusable Components - Microsoft Internet Explorer

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Links

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OK Cancel

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Opening <http://dcernev-ro.ro.oracle.com:8889/forms90/f90servlet;jsessionid=7f00000122b921dede006b2f4ed6a2b0bfba81626cc7>

Local intranet

Configurare Forms Services

- Oracle Installer executa partea de baza
 - configureaza Oracle Application Server
 - configureaza Oracle Developer Suite
- Este necesar sa configuram aplicatia de Forms
 - formsweb.cfg
 - default.env
 - Registry.dat
- si... Aplicatia este gata pentru a rula pe Web!

Configurare Forms Services

formsweb.cfg

- Se specifica parametrii de runtime pentru aplicatia de Forms
- Echivelentul parametrilor din linia de comanda la client/server
- Toti parametrii sunt descrisi in documentul “*Oracle AS Forms Services Deployment Guide*” de pe Oracle Technology Network.

Configurare Forms Services

formsweb.cfg

- Parametri de Runtime
- Se pot defini toate optiunile in sectiunea default
- Sectiunile destinate fiecarei aplicatii in parte inlocuiesc parametrii default

formsweb.cfg File

```
...  
userid=  
form=test.fmx  
background=  
width=640  
height=480  
  
[order]  
userid=order/order@orcl  
form=orders  
background=order.jpg
```

Configurare Forms Services

Address  <http://127.0.0.1:8888/forms90/f90servlet?config=order>

formsweb.cfg

- Parametri de Runtime
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Configurare Forms Services

Address  http://127.0.0.1:8888/forms90/f90servet?config=order

formsweb.cfg

- Parametri de Runtime
- Se pot defini toate optiunile in sectiunea default
- Sectiunile destinate fiecarei aplicatii in parte inlocuiesc parametrii default

- Poate contine mai multe sectiuni pentru mai multe aplicatii

formsweb.cfg File

```
...
userid=
form=test.fmx
background=
width=640
height=480
```

[order]

```
userid=order/order@orcl
form=orders
background=order.jpg
```

Configurare Forms Services

default.env

- Aici se specifica variabilele de mediu
- echivalent cu variabilele de mediu in client/server sau setari de Registry in Windows

default.env File

...

ORACLE_HOME=C:\Oracle\Forms9i

FORMS90_PATH=D:\Work

...

Configurare Forms Services

default.env

- Variabilele de mediu

default.env File

```
...  
ORACLE_HOME=C:\Oracle\Forms9i  
FORMS90_PATH=D:\Work  
...
```

formsweb.cfg File

```
...  
userid=  
form=test.fmx  
background=  
width=640  
height=480  
envFile=default.env  
  
[order]  
userid=order/order@orcl  
form=orders  
background=order.jpg
```

Configurare Forms Services

Address  http://127.0.0.1:8888/forms90/f90servet?config=order

default.env

- Variabilele de mediu
- Fiecare sectiune de aplicatie poate avea propriul fisier env

orders.env File

```
...
ORACLE_HOME=C:\Oracle\Forms9i
FORMS90_PATH=D:\Orders
...
```

formsweb.cfg File

```
...
userid=
form=test.fmx
background=
width=640
height=480
envFile=default.env
```

[order]

```
userid=order/order@orcl
form=orders
background=order.jpg
envFile=orders.env
```

Configurare Forms Services

Registry.dat

- Calea catre iconite
- echivalent cu UI_ICON in client/server
- Info despre fonturi

Registry.dat File

...

default.icons.iconpath=D:\Word\Icons

default.icons.iconextension=gif

...

Upgrade Oracle Forms

- Daca versiunea de Forms <6i se migreaza la 6i apoi la 10g
- Oracle9i Forms si Oracle Forms 10g sunt numai in arhitectura Web
- <http://otn.oracle.com/products/forms>
 - “Forms Upgrade Reference”

Procesul de Upgrade

- Optiuni:
 - Forms Builder (Interactiv)
 - Forms Compiler (Batch)
 - Forms JDAPI (Programmatic/Batch)
- Forms Migration Assistant (Optional)

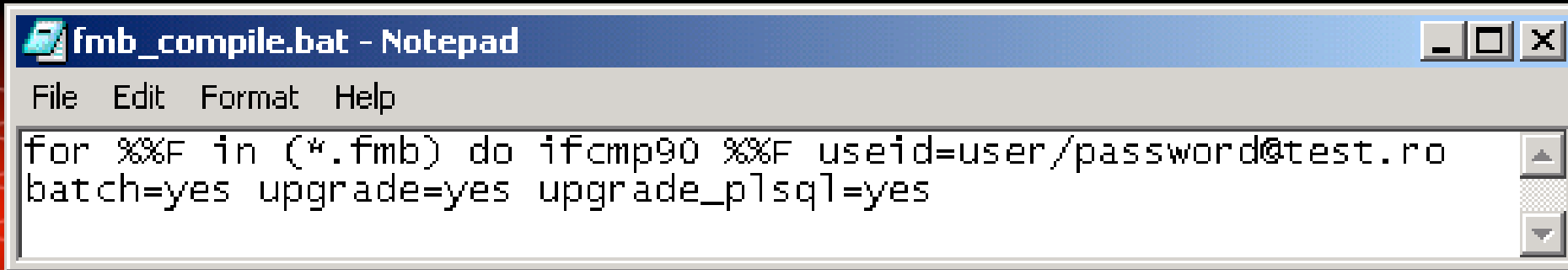
Procesul de Upgrade

- Forms Builder (Interactiv)
 - Deschidem modulul FMB Oracle Forms Builder 9i sau 10g
 - Compilam Modulul
 - Salvam Modulul (se genereaza FMX daca nu sunt erori)
 - Avem feedback instant
 - Cel mai putin eficient ca timp

Procesul de Upgrade

- Forms Compiler (Batch)
 - batch sau shell script (Windows/Unix)
 - Redirectarea output in fisier

"C:\FORMS>fmb_compile.bat > c:\FORMS\compile.txt"

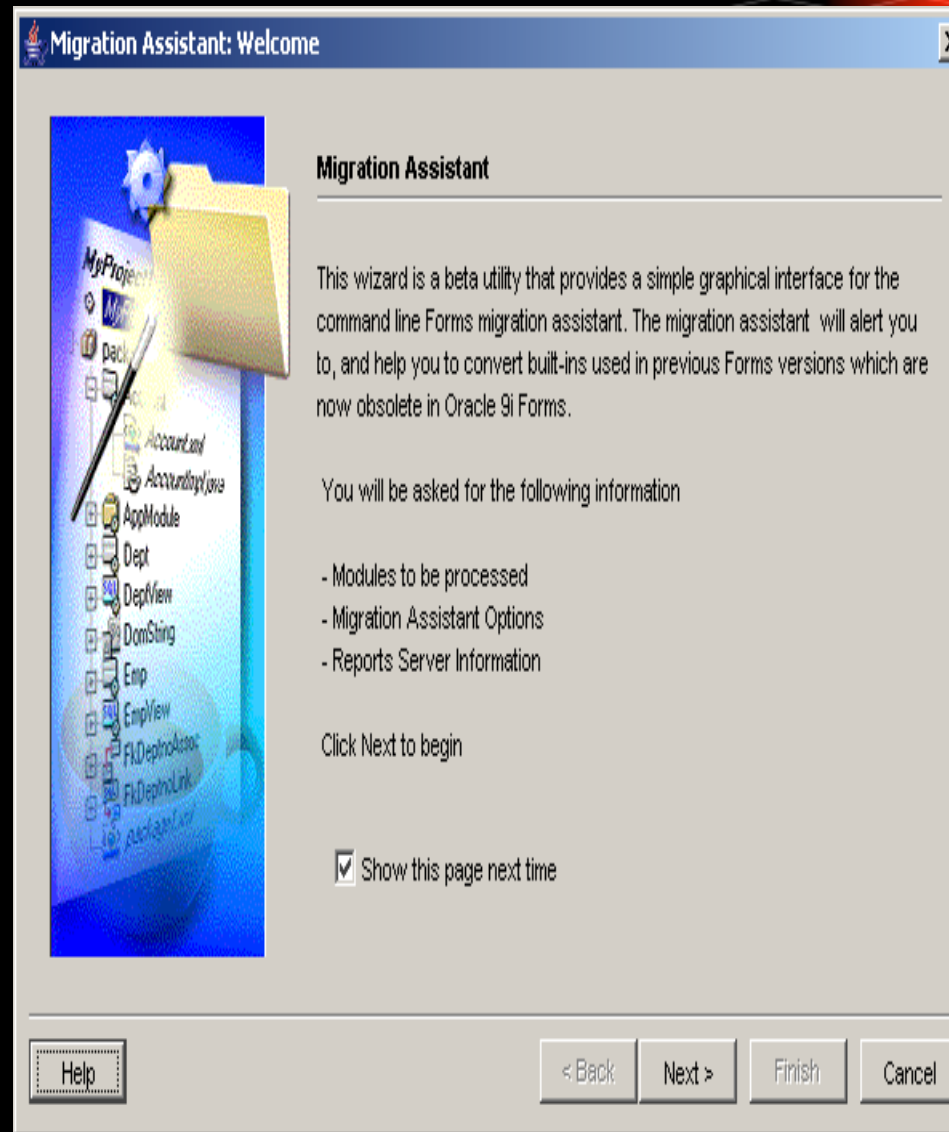


```
fmb_compile.bat - Notepad
File Edit Format Help
for %%F in (*.fmb) do ifcmp90 %%F useid=user/password@test.ro
batch=yes upgrade=yes upgrade_plsql=yes
```

Forms Migration Assistant

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- Acest instrument ne alerteaza daca se utilizeaza functionalitati desuportate
 - Aplica schimbari unde este posibil
 - Salveaza FMB in format de Oracle9i Forms
 - Are interfata si din linia de comanda: ifplsconv90.exe
 - Download de pe OTN
 - Se utilizeaza (optional) inainte de Forms Builder sau Forms Compiler
 - Forms Compiler va gasi erorile si in cazul cand nu s-a utilizat Migration Assistant
- Oracle Developer Days

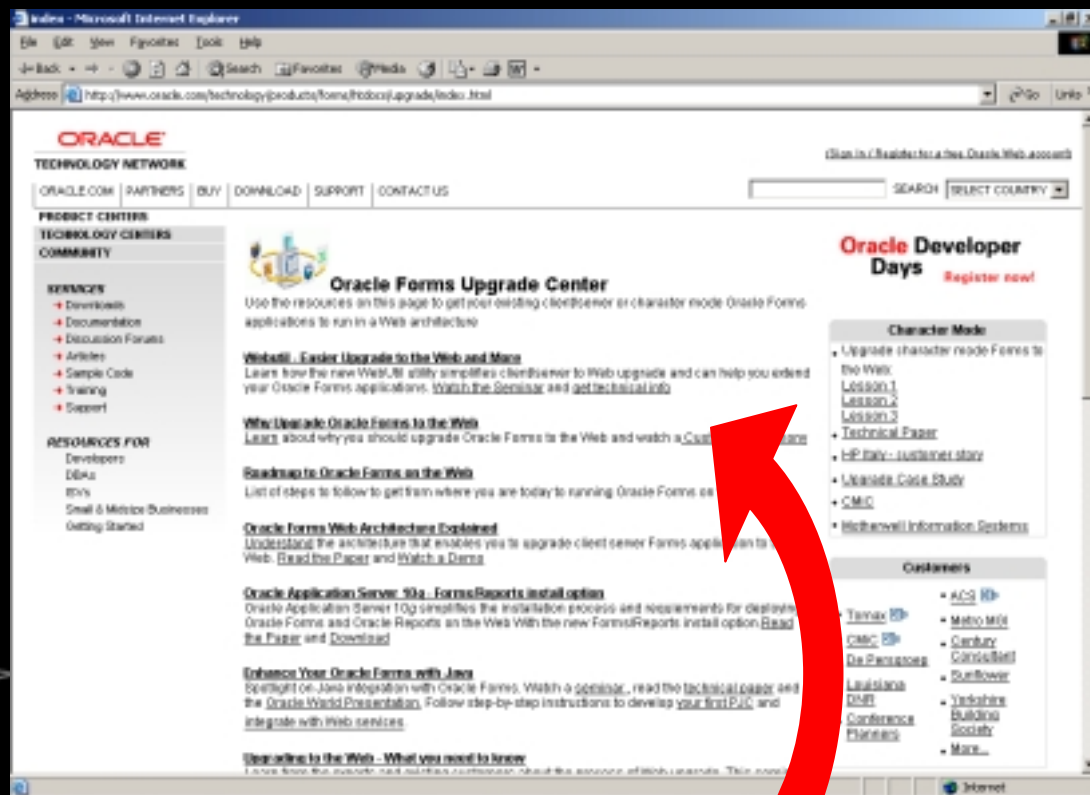


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Resurse si documentatie pentru upgrade (migrare)

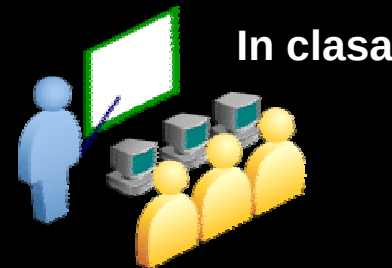
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- Seminare Internet
- Technical Papers
- Demo-uri
- How-To's
- Documente Road-Map
- Studii de caz
- Forumuri de discutie
- Metalink

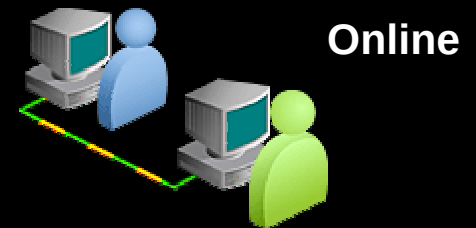


<http://otn.oracle.com/formsupgrade>

– Cursuri cu instructor:



In clasa



Online

– Studiu individual:

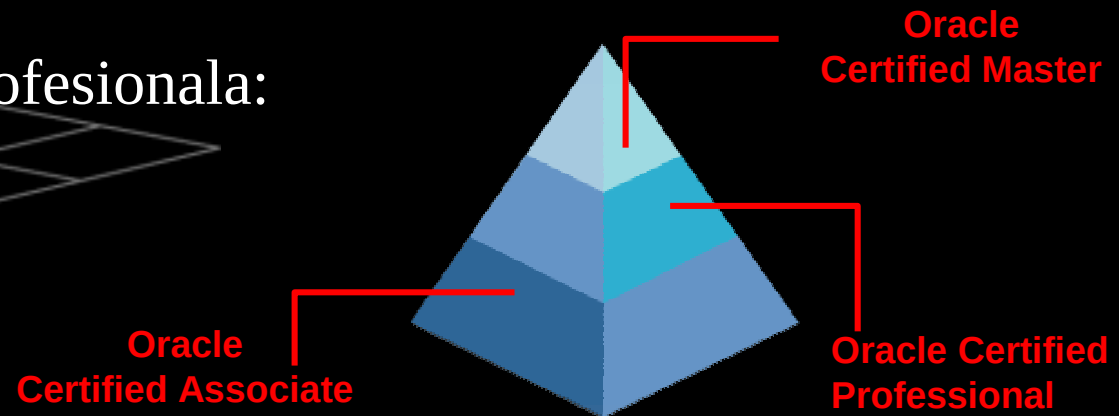


Online



CDRom

– Certificare profesionala:



otn.oracle.com



otn.oracle.com/products/forms

QUESTIONS & ANSWERS

Oracle Developer Days