

**Degenio**

**MouliForms**

**Migration Oracle forms 6-10g**

# Introduction

- **Phases during forms conversion**
- **Options and Tools for conversion**
- **Mouliforms Presentation**
- **Conversion process with MouliForms**
- **Messages during conversion**

# Phases

- **Phase 1 : Organization / tracking / framework**
- **Phase 2 : Putting in place the environnement / Evaluation of MouliForms and other options**
- **Phase 3 : Conversion**
- **Phase 4 : Tests**

# Conversion Tools

- **Built-in Forms conversion tool in batch mode**
- **Built-in Forms compiler in batch mode**
- **JDAPI API programming/batch mode**
- **Available commercial tools (pitss-imex and others \$\$\$\$\$\$)**

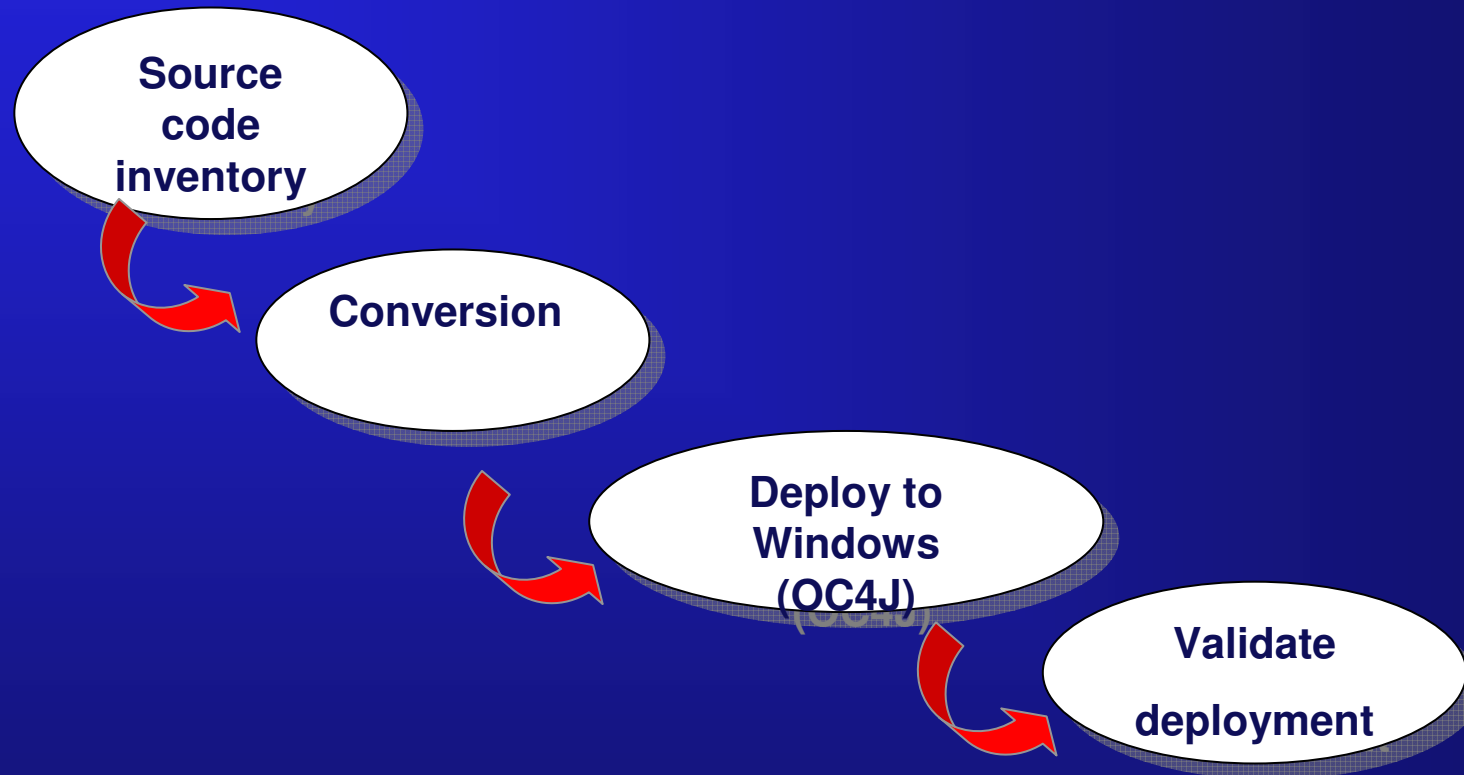
# JDAPI API JAVA

- Update fonts, color attributes on the fly (visual attributes)
- Add new objects (example: report object)
- Flag deprecated built-ins
- Replace some of the deprecated built-ins
- Replace *Run\_Product(REPORTS)* par *Run\_Report\_Object*
- Attach new PLLs
- Detect usage of client functions such as *text\_io*, *ole2*, *forms\_ole*, *dde*, *host()*, *ora\_ffi*, etc.

## Changes 9i-10g

- **Support for mouse navigation**
- **Support for web environment**
- **Support for object oriented concepts**
- **Update to PL/SQL**
- **Better GUI**
- **Better visual aspect for forms application**

# Conversion steps on Windows (developer machines)



# Preliminary steps

- **Convert PLL to 9i-10g**
- **Convert Object Libraries**
- **Convert Menus**
- **Prepare Jar file with the application icons**



# Potential problems 6-10g

- **Deprecated Built-ins replacements**
- **Updates to the PL/SQL code**
- **Integration with Reports (?)**
- **Visual attributes: Color and fonts**
- **Client-side fonctionnalities**

# MouliForms- some features

- **Based on JDAPI**
- **Batch changes to:**
  - **Color**
  - **Fonts**
  - **Adding new objets**
  - **Adding new PLLs**

# Conversion options - MouliForms

**Modules** | **Interface** | **Runtime**

**Item**

- Font size to 8 for buttons
- set Canvas to NULL for mandatory items.
- false items mand, visb but greyed out
- Root\_Window  New name fenetre\_principal

**Block**

- Change Background (if non spec) to r100g100b100
- Replace BREAK if found  Replace :PW if found
- Change\_Alert\_message

**Form**

- Convert to lowercase class names
- Convert to lowercase PLL names
- Convert to lowercase icon name in menu
- Convert to lowercase -menu name

**General**

- Module type Forms  Compile modules
- Old library name FORM\_BIB
- New library name preven
- Save Changes

OK Cancel Apply

## **MouliForms- some features (2)**

- Can check for client side calls**
- Search for objects and Strings**
- Modules Compilation**
- Execution of modules under OC4J**
- Adaptation of WebUtil on-the-fly**
- Object Hierarchies in a module**
- Comparaison of modules (before and after)**
- JAVADOC style documentation**

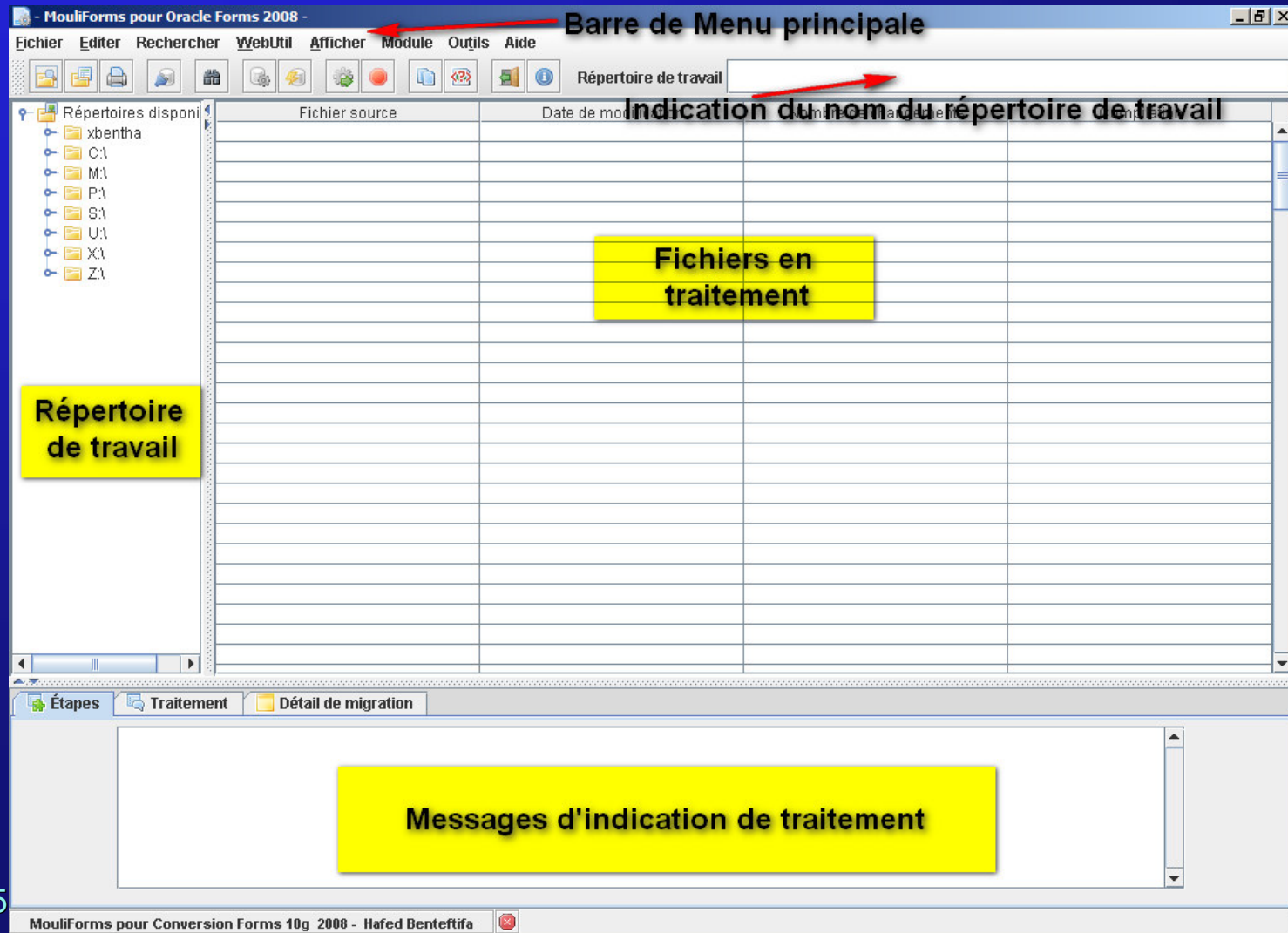
# Mouliforms- the facts

- **Can perform several iteration on the same module**
- **Interactive tool**
- **Use a working directory for batch processing**
- **Can be extended by adding new migration rules**
- **Has some other modules that can be used during forms development**

# Interface

- **Toolbar with access to the most used fonctionnalities**
- **Field that shows the current work directory.**
- **A directory selector that shows all the available local and network folders.**
- **A panel that indicates the current modules being processed with MouliForms.**
- **Tab panel that shows the details of the process being carried out.**

# Interface (2)



# Conversion steps

**Step 1 : Select work directory**

**Step 2 : Connect to schema (if compiling)**

**Step 3 : Start automatic conversion**

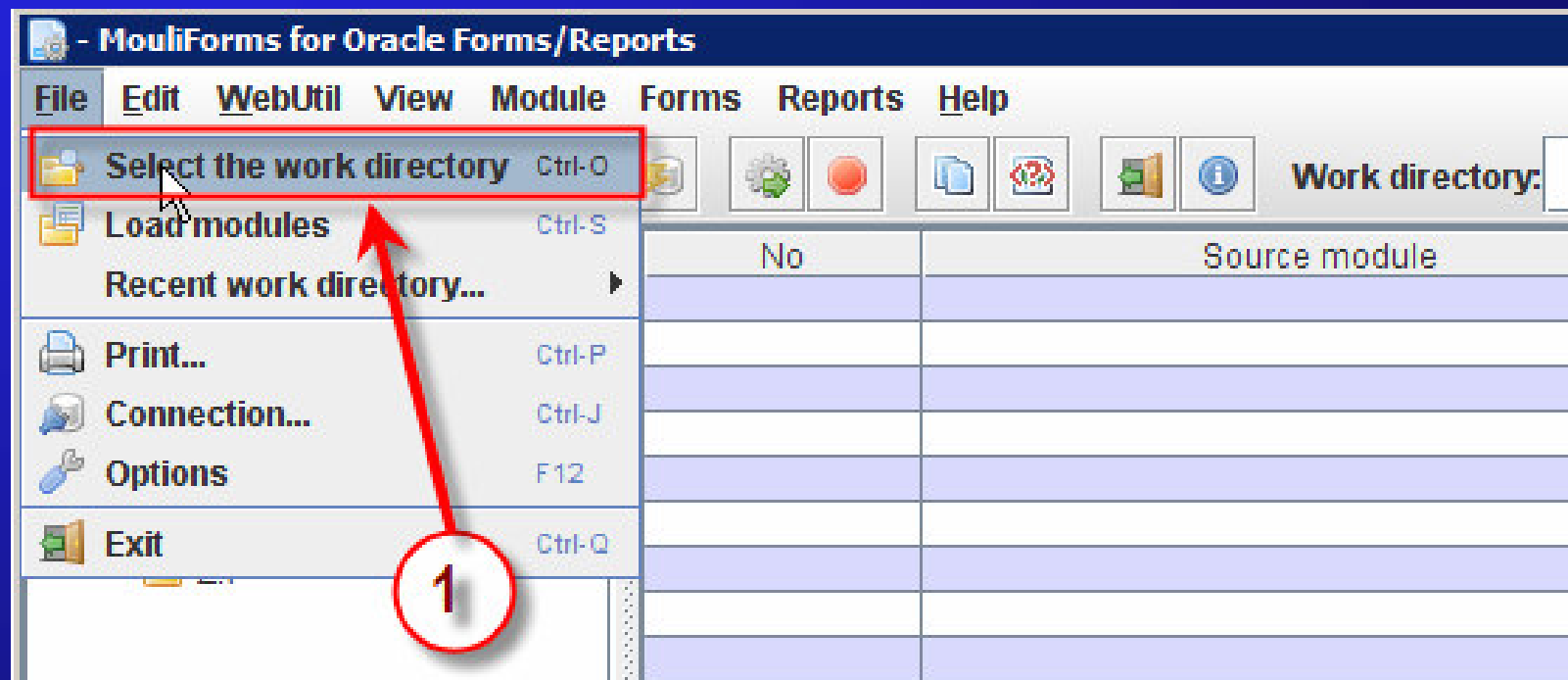
**Step 4 : Compile modules**

**Step 5 : Inspect form modules**

**Step 6 : Output conversion report**

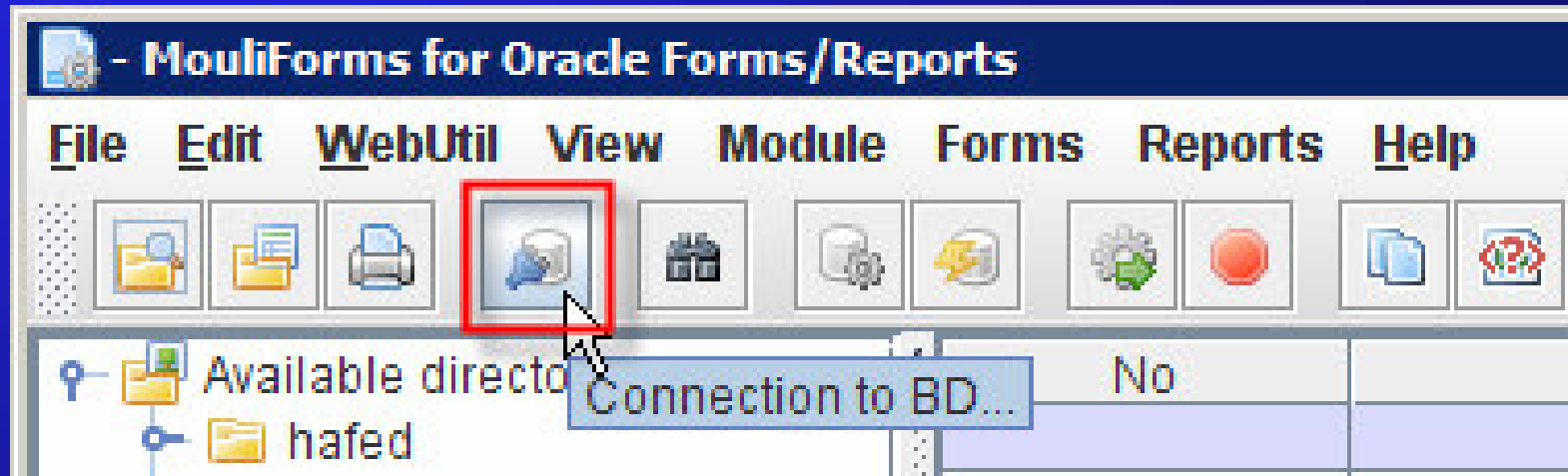


# Steps (1)



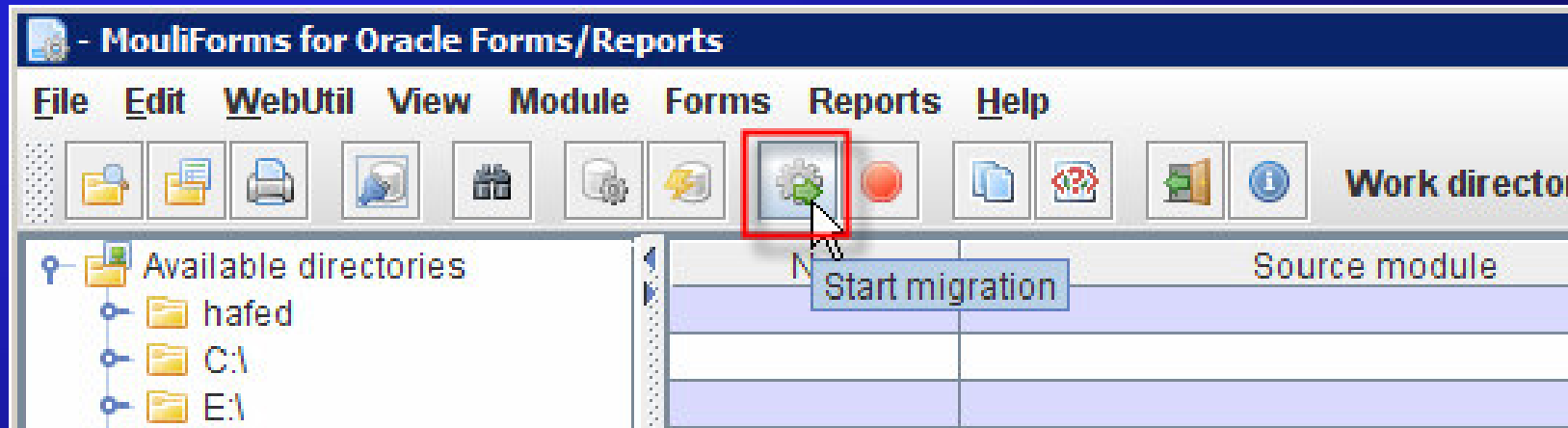
**Step 1 : Select work directory**

## Steps (2)



**Step 2 : Connect to schema (if compiling)**

# Steps (3)



**Step 3 : Start automatic conversion**

# Steps (4)

Fichier source	Date de modification	Nombre de changements	Compilation
0-/Ev_pub_6.0\ARTICLES.fmb	1 juin 2007 15:30:12 EDT	17	OK
1-/Ev_pub_6.0\PLANIF_ESTIME.fmb	13 mai 2008 16:22:01 EDT	17	OK
2-/Ev_pub_6.0\RECUPERATION.fmb	4 juin 2007 16:23:12 EDT	19	OK
3-/Ev_pub_6.0\ame_bris.fmb	15 juin 2004 11:08:14 EDT	21	OK
4-/Ev_pub_6.0\ame_bris_1.fmb	18 février 2003 14:33:29 EST	37	Non
5-/Ev_pub_6.0\amenagement.fmb	2 février 2006 10:02:28 EST	16	OK
6-/Ev_pub_6.0\c_evpu96.fmb	8 septembre 2005 14:41:00 EDT	34	OK
7-/Ev_pub_6.0\ep_anom.fmb	2 février 2006 10:01:27 EST	34	OK
8-/Ev_pub_6.0\ep_cout_approx.fmb	9 septembre 2005 11:54:54 EDT	6	OK

## Step 4 : Compile modules

# Steps (5)

0-/Ev_pub_6.0\ARMOIERS.fmb	1 juin 2007 19:30:12 EDT	17	OK
1-/Ev_pub_6.0\PLANIF_ESTIME.fmb	13 mai 2008 16:22:01 EDT	17	OK
2-/Ev_pub_6.0\RECUPERATION.fmb	4 juin 2007 16:23:12 EDT	19	OK
3-/Ev_pub_6.0\ame_bris.fmb	15 juin 2004 11:08:14 EDT	21	OK
4-/Ev_pub_6.0\ame_bris_1.fmb	18 février 2003 14:33:29 EST	37	Non
5-/Ev_pub_6.0\amenagement.fmb	2 février 2006 10:07:28 EST	16	OK

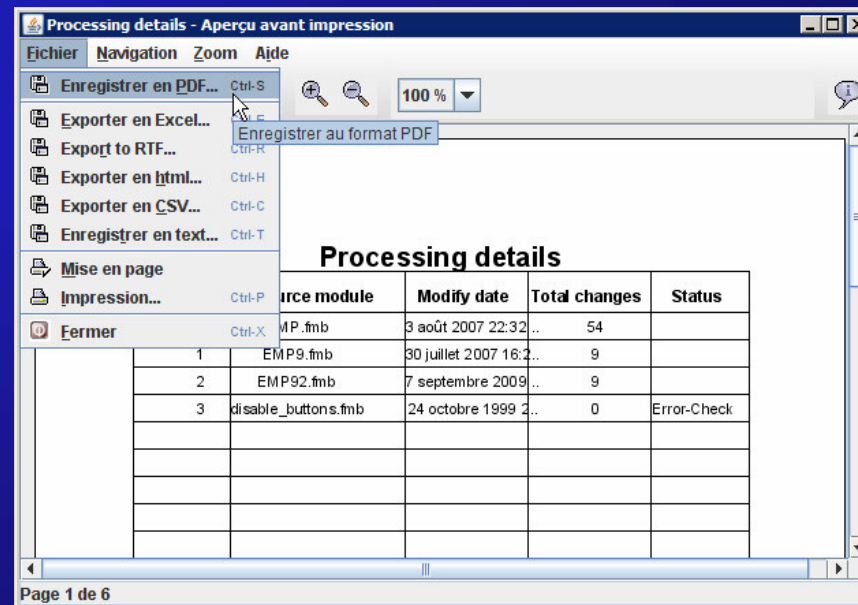
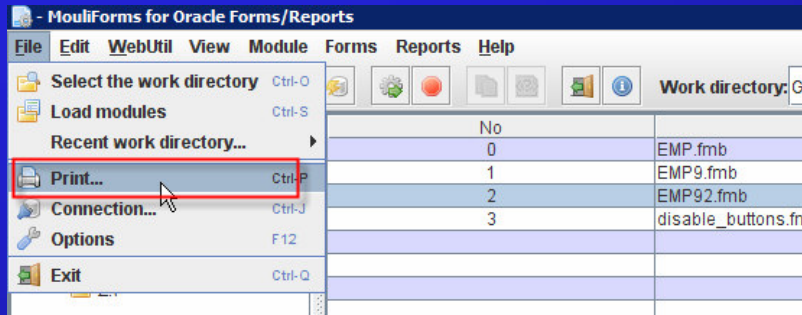
  

Windows Explorer window showing the directory `X:\OraDev\Hafed\migration\Ev_pub_6.0`. The file `ame_bris_1.err` is selected, and a red arrow points from the 'Non' status in the table above to this file. The file details show it is 1 Ko and a 'Journal des erreurs'.

Nom	Taille	Type
ame_bris_1.err	1 Ko	Journal des erreurs
ame_bris.fmx	93 Ko	Oracle Developer Form Compiled

## Step 5 : Inspect form modules

# Steps (6)



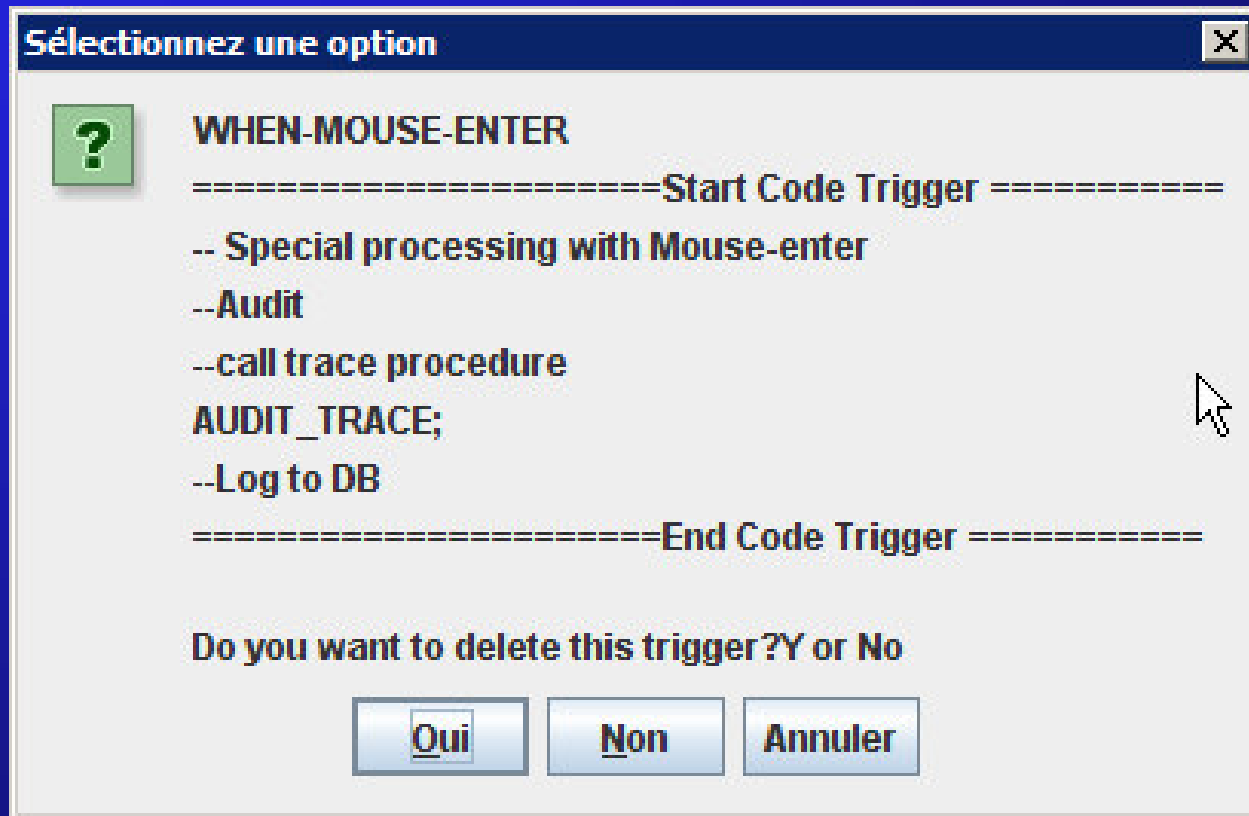
## Step 6 : Output conversion report

# Messages in MouliForms

No	Source module	Modify date	Total changes	Status
0	ALBUM_PHOTO.fmb	6 septembre 2009 00:31:5...	0	
1	CHARGE_PHOTO.fmb	6 septembre 2009 00:31:5...	0	
2	CHARGE_PHOTO_WEB.fmb	15 juin 2004 12:15:00 EDT	0	Error-Check manually
3	CHARGE_PHOTO_WEBUTIL.fmb	6 septembre 2009 00:31:5...	0	
4	EMP.fmb	3 août 2007 22:32:31 EDT	54	
5	EMP9.fmb	30 juillet 2007 16:21:38 EDT	9	
6	EMP92.fmb	30 juillet 2007 16:50:07 EDT	9	
7	EMPDEPT.fmb	9 septembre 2007 17:09:5...	1	
8	EMPDEPT_lov.fmb	13 août 2007 16:28:54 EDT	11	
9	EX01_01.fmb	30 août 1999 10:25:04 EDT	10	
10	EX01_02.fmb	30 août 1999 09:49:34 EDT	5	
11	EX02_02.fmb	30 août 1999 09:42:32 EDT	8	
12	EX03_01.fmb	30 août 1999 15:56:24 EDT	16	
13	EX03_02.fmb	30 août 1999 15:56:54 EDT	10	
14	EX03_03.fmb	30 août 1999 15:57:10 EDT	5	
15	EX06_01.fmb	26 septembre 1999 14:20:...	10	
16	EX06_02.fmb	13 février 2000 22:01:34 E...	8	
17	EX06_03.fmb	2 octobre 1999 17:24:02 E...	4	
18	EX07_02.fmb	2 septembre 1999 12:27:4...	8	
19	EX08_01.fmb	2 octobre 1999 17:51:14 E...	8	
20	EX08_02.fmb	26 septembre 1999 12:19:...	8	
21	EX08_03.fmb	2 octobre 1999 18:37:08 E...	24	
22	EX09_01.fmb	26 septembre 1999 13:15:...	1	
23	EX10_01.fmb	26 septembre 1999 13:50:...	10	
24	EX10_03.fmb	4 octobre 1999 21:04:14 F	16	

**Listing of modules during conversion with total of current changes made to each module**

## Messages in MouliForms (2)



Message related to a deprecated forms trigger. A dialog is shown with the PL/SQL code. Code inspection is required before asking MouliForms to keep or delete the trigger.

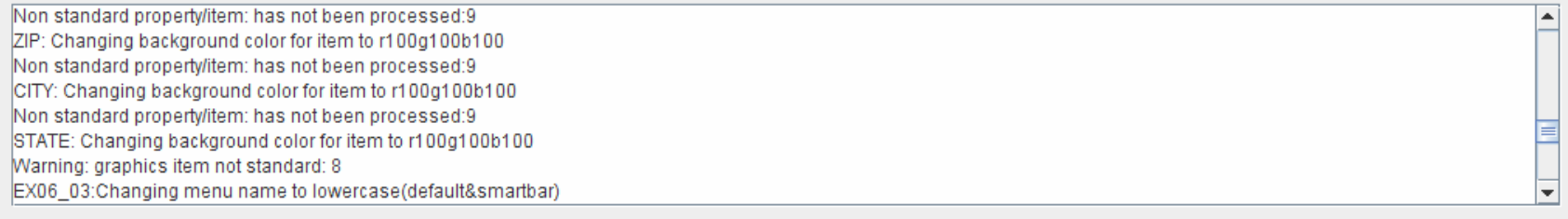


# Messages in MouliForms (3)

```
Start of conversion
Converting module:FormModule ALBUM_PHOTO (G:\migration_mouliforms\ALBUM_PHOTO.fmb)
Saving ...G:\migration_mouliforms\ALBUM_PHOTO.fmb
Converting module:FormModule CHARGE_PHOTO (G:\migration_mouliforms\CHARGE_PHOTO.fmb)
Saving ...G:\migration_mouliforms\CHARGE_PHOTO.fmb
!!Error while opening fmb/mmb module:G:\migration_mouliforms\CHARGE_PHOTO_WEB.fmb
Converting module:FormModule CHARGE_PHOTO_WEBUTIL (G:\migration_mouliforms\CHARGE_PHOTO_WEBUTIL.fmb)
Saving ...G:\migration_mouliforms\CHARGE_PHOTO_WEBUTIL.fmb
```

**Processing steps shown in the bottom tab.**

# Messages in MouliForms (4)



```
Non standard property/item: has not been processed:9  
ZIP: Changing background color for item to r100g100b100  
Non standard property/item: has not been processed:9  
CITY: Changing background color for item to r100g100b100  
Non standard property/item: has not been processed:9  
STATE: Changing background color for item to r100g100b100  
Warning: graphics item not standard: 8  
EX06_03:Changing menu name to lowercase(default&smartbar)
```

**Processing steps are shown for each module in this tab. All the specifics changes are shown here.**

# Messages in MouliForms (5)

```
EMP92: Changing menu name to lowercase(default&smartbar)
EMPNO: Changing background color for item to r100g100b100
Trigger ver6 changer: EMP92.EMP.EMPNO.WHEN-MOUSE-ENTER (type 37)
ENAME: Changing background color for item to r100g100b100
JOB: Changing background color for item to r100g100b100
MGR: Changing background color for item to r100g100b100
HIREDATE: Changing background color for item to r100g100b100
SAL: Changing background color for item to r100g100b100
```

**Processing steps on one module after you select it from the output table. Détails are shown in this tab.**

# Conclusion

- **MouliForms can handle around 90% of the conversion needs from 6 to 10g**
- **Some bugs still there related to the UI and messages display.**