

IBM Rational DOORS  
Requirements Management Framework Add-On

# **IRDRMFAO**

# **INSTALL GUIDE**

*IBM Rational DOORS  
Requirements Management  
Framework Add-on*

*IRDRMFAO Install Guide  
Release 6.1.0.8*

Before using this information, be sure to read the general information under the “Notices” chapter on page 35.

This edition applies to **VERSION 6.1.0.8, IBM Rational DOORS Requirements Management Framework Add-on** and to all subsequent releases and modifications until otherwise indicated in new editions.

© **Copyright IBM Corporation 2009,2015**

US Government Users Restricted Rights—Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

## Table of Contents

<b><u>1 INTRODUCTION.....</u></b>	<b><u>6</u></b>
<b><u>2 CHECK THAT YOU MEET THE PREREQUISITES.....</u></b>	<b><u>7</u></b>
<b><u>3 INSTALL IRDRMFAO.....</u></b>	<b><u>8</u></b>
<u>3.1 Select the language to be used by the installer.....</u>	<u>8</u>
<u>3.2 Warning.....</u>	<u>8</u>
<u>3.3 Accept Licence.....</u>	<u>9</u>
<u>3.4 Choose DOORS version.....</u>	<u>10</u>
<u>3.5 Select the installation Mode.....</u>	<u>11</u>
<u>3.6 Select the installation Directory.....</u>	<u>12</u>
<u>3.7 End of installation.....</u>	<u>13</u>
<b><u>4 SILENT INSTALLATION.....</u></b>	<b><u>16</u></b>
<u>4.1 Create the response file.....</u>	<u>16</u>
<u>4.2 How to run the installer in silent mode.....</u>	<u>16</u>
<b><u>5 UNINSTALL IRDRMFAO.....</u></b>	<b><u>18</u></b>
<u>5.1 Confirm uninstallation.....</u>	<u>18</u>
<u>5.2 Do uninstall.....</u>	<u>18</u>
<b><u>6 MODIFICATIONS IN THE ENVIRONMENT.....</u></b>	<b><u>20</u></b>
<b><u>7 MENUS CONFIGURATION.....</u></b>	<b><u>23</u></b>
<b><u>8 TROUBLESHOOTING.....</u></b>	<b><u>25</u></b>
<b><u>9 UPGRADE OF IRDRMFAO PROJECTS.....</u></b>	<b><u>26</u></b>
<b><u>10 CLIENT CONFIGURATION.....</u></b>	<b><u>30</u></b>
<b><u>11 COMPLEMENTS.....</u></b>	<b><u>31</u></b>

**12 NOTICES .....35**

# 1 Introduction

This document describes the procedure to install **IBM® Rational® DOORS® Requirements Management Framework Add-on**. This software is also referred to as IRDRMFAO or just RMF.

This software has been previously delivered by Telelogic as a Professional Service Asset named **DOORS T-REK**.

IRDRMFAO supports two installation modes:

- **Full installation** : meaning that all the files will be installed on the computer, either :
  - In the directory where the DOORS client was installed (default mode)
  - In another directory (mode called “out of place” installation)
- **Workstation installation** : meaning that your installation of IRDRMFAO will depend on a full installation done on a file server. The main advantage of this installation mode is the ease of maintenance. Indeed when upgrading to a newer version of IRDRMFAO, you only have to perform one single installation, on the file server, except in the case below :

**BEWARE !**

***To upgrade a workstation installation of DOORS T-REK 5.3p2 (or earlier) to IRDRMFAO 6.1.0.8 you have to (re)install IRDRMFAO on all the client computers because the client installation is not backward compatible with a client installation for T-REK***

The Installation Wizard is available in three languages: English, French and German.

IRDRMFAO also supports **Silent installation**. In this mode the interactions with the user are replaced by a parameter file. See §4 “Silent Installation” to learn how to setup and run a silent installation.

IRDRMFAO includes a binary component (GraphvizContainer.exe) providing some services from Graphviz. Graphviz is an open source graph visualization software. This component is used in the **Explorer** to generate the layout of graphs.

## 2 Check that you meet the prerequisites

**Before installing IRDRMFAO, it is required to uninstall any previous version of IRDRMFAO or DOORS T-REK.**

- To install IRDRMFAO, you must have Administrator rights.
- Your computer must have at least 43 MB of free disk space for a full installation, or only 1 MB for an installation in workstation mode.
- IRDRMFAO 6.1.0.8 is restricted to Windows platforms and compatible with DOORS versions:
  - DOORS 9.3
  - DOORS 9.4
  - DOORS 9.5
  - DOORS 9.6
- MS Office is required for some features:
  - import from MS Word,
  - export to MS Word (WEXP),
  - export to MS Excel (dashboard, ...)

IRDRMFAO 6.1.0.8 supports the following versions of MS Office :

- 2003
- 2007
- 2010
- 2013

It is recommended that MS Office be already installed before installing IRDRMFAO. Otherwise the installer cannot copy the `irdrmfao.dot` file in the home directory of MS Office, and as a consequence the macros toolbar will not be available in MS Word.

Nevertheless, you can manually copy the `irdrmfao.dot` file after installing MS Office, from the directory `%RMFHOME%\irdrmfao\word` to the directory `%OFFICEHOME%\Startup`. (The name of the directory “Startup” can be different if MS Office is not installed in English).

- Check that you have rights to create files into the DOORS Home directory (directory where DOORS has been installed) and to modify the Windows Registry.
- The installer does not support installing several versions of IRDRMFAO, except if it is for different versions of DOORS. If there is already another version of IRDRMFAO (or DOORS-TREK) installed, you need to uninstall that version first.

## 3 Install IRDRMFAO

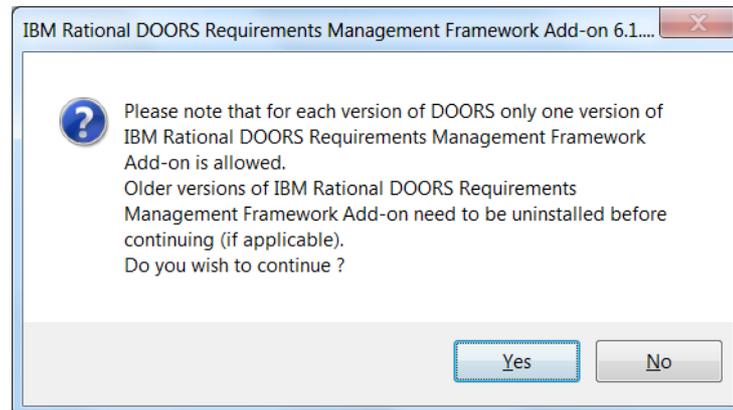
Installing IRDRMFAO with its Installation Wizard is really straightforward. Just follow the steps described below once you have checked that the prerequisites are fulfilled.

### 3.1 Select the language to be used by the installer



Please notice that this choice only sets the language used by the installer. But IRDRMFAO itself is only available in English.

### 3.2 Warning



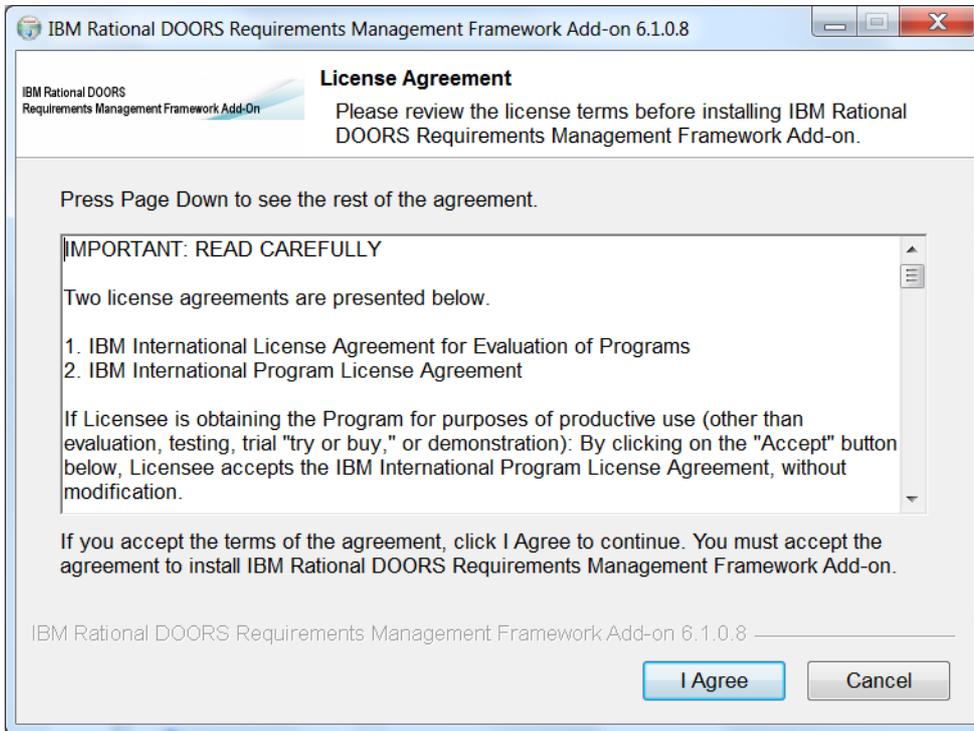
The installation wizard can install IRDRMFAO 6.1.0.8 only if no previous version of IRDRMFAO (whatever the version) was installed for the same version of DOORS.

Whenever another version of IRDRMFAO has been installed before for another version of DOORS, then the installation will be successfully performed.

Click “Yes” after checking that IRDRMFAO has not already been installed for the version of DOORS that you plan to install IRDRMFAO 6.1.0.8 against. Otherwise, click « No » and then uninstall IRDRMFAO before running the installer again.

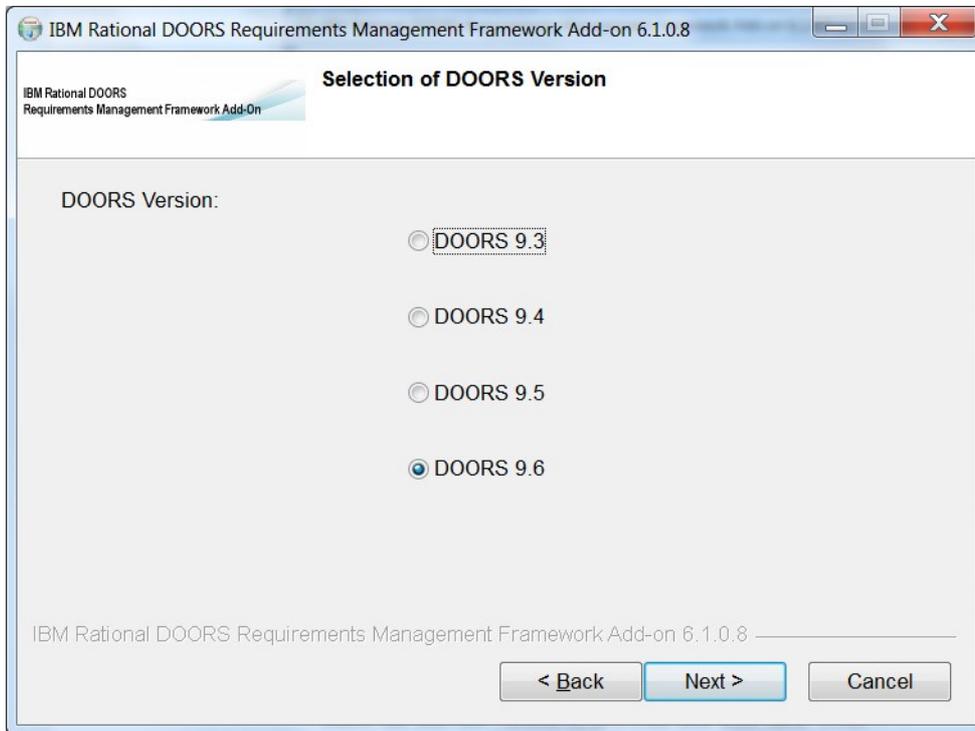
### 3.3 Accept Licence

After reading this agreement, please accept it to continue the installation.



## 3.4 Choose DOORS version

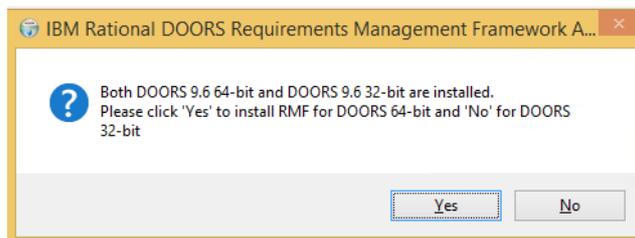
In this page, please choose for which version of DOORS, IRDRMFAO will be installed. To install IRDRMFAO on several DOORS versions, you need to run the Installation Wizard several times.



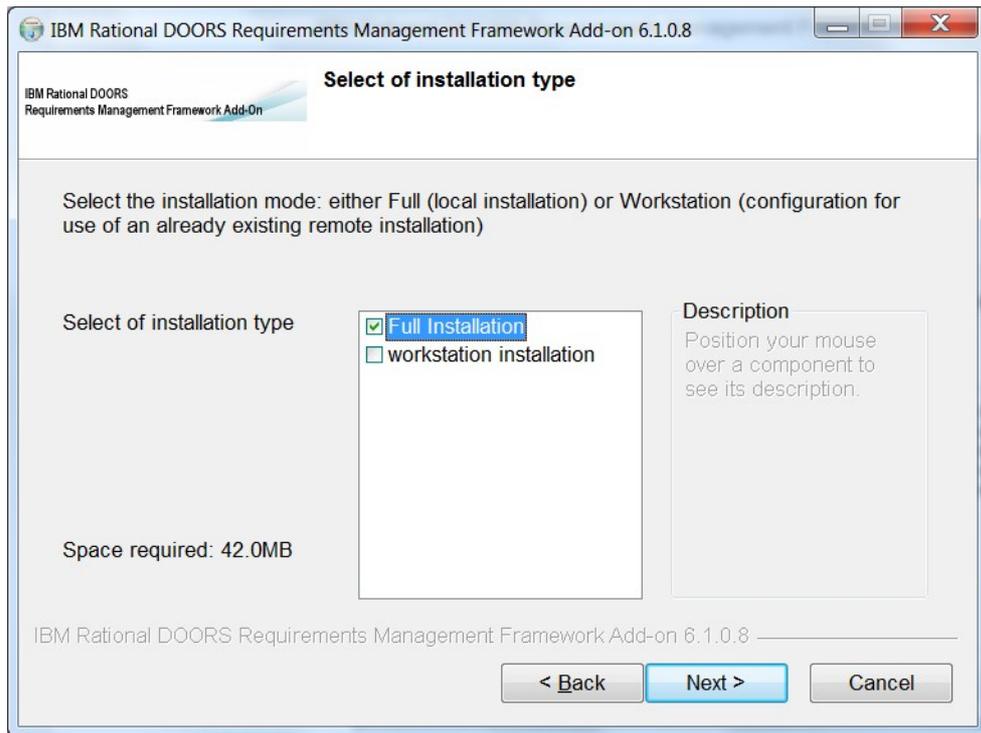
The installer automatically detects which versions of DOORS are installed so that only the versions installed are enabled (and others are greyed out).

Select the relevant version of DOORS and then click “Next >”.

If you have selected “DOORS 9.6” and both the 32-bit 64-bit clients are installed, then you will be prompted to chose to install IRDRMFAO for one of those clients:



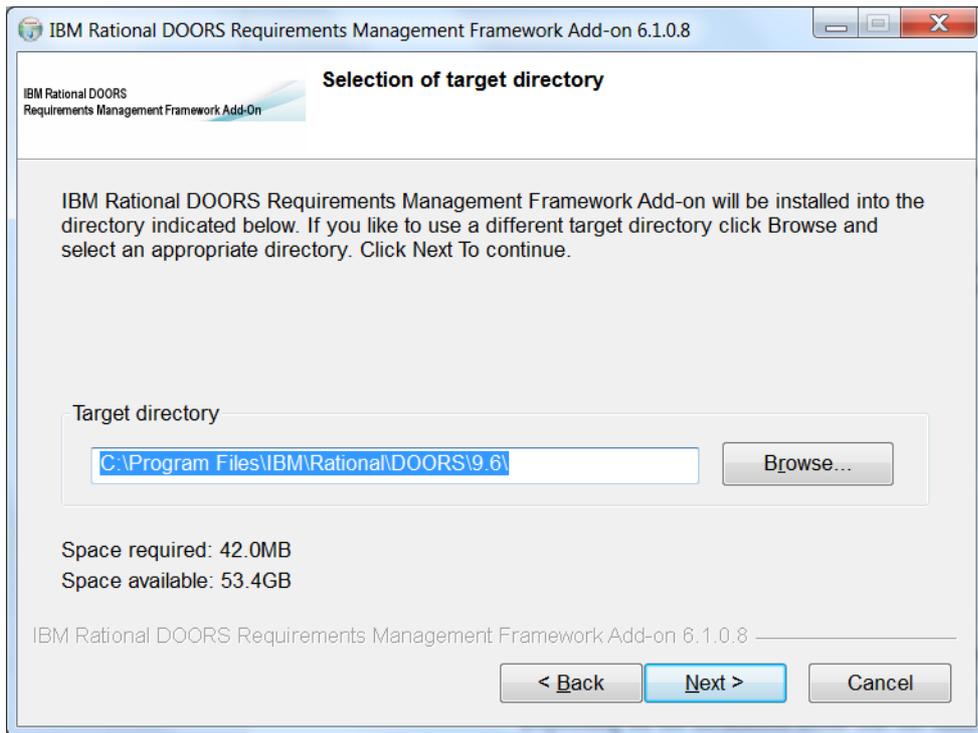
### 3.5 Select the installation Mode



In this page, you are asked to choose either to fully install IRDRMFAO on your computer, or rely on a remote installation of IRDRMFAO.

The second possibility called “workstation installation” consists in configuring the selected version of DOORS to use a remote installation. The advantage of this workstation installation is the simplicity to upgrade to a newer version of IRDRMFAO later on. There is no need to upgrade IRDRMFAO on each DOORS client computer: only the shared installation of IRDRMFAO shall be changed.

## 3.6 Select the installation Directory



Depending on the installation mode that has been chosen, you are asked to enter in this page :

- in the “full installation” mode : the directory where IRDRMFAO should be installed
- in the “workstation installation” mode : the path to a remote installation of IRDRMFAO.

This path to be entered is the directory where IRDRMFAO has been installed (in the “full installation” mode), i.e the following sub-directories should exist in that directory: “lib” and “IRDRMFAO”.

**Important:** To make it easier to install IRDRMFAO in workstation mode, the right path can be automatically provided to the user.

To achieve that, you have to create a file called “IRDRMFAO.INI” containing this path, and run the installer in a directory containing this “IRDRMFAO.INI” file.

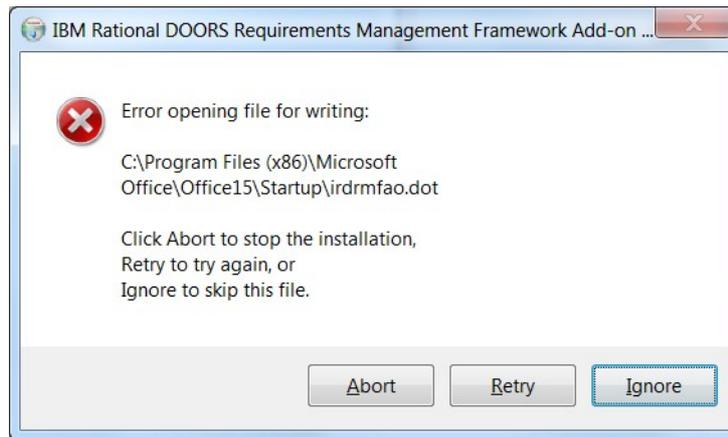
The “IRDRMFAO.INI” file shall have the following content:

```
[Server]
IrdrmfaoDir=<directory of the remote installation of IRDRMFAO>
```

```
[Server]
IrdrmfaoDir=\\UKSERV1\DOORS\irdrmfao
```

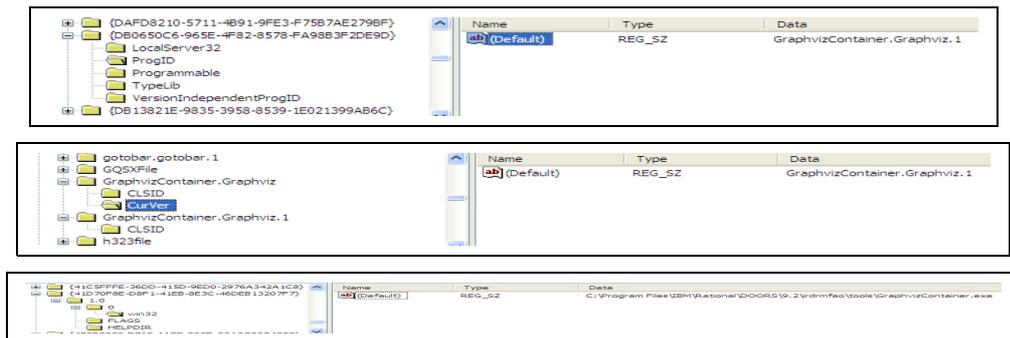
Once you click “Next >” the installation will start.

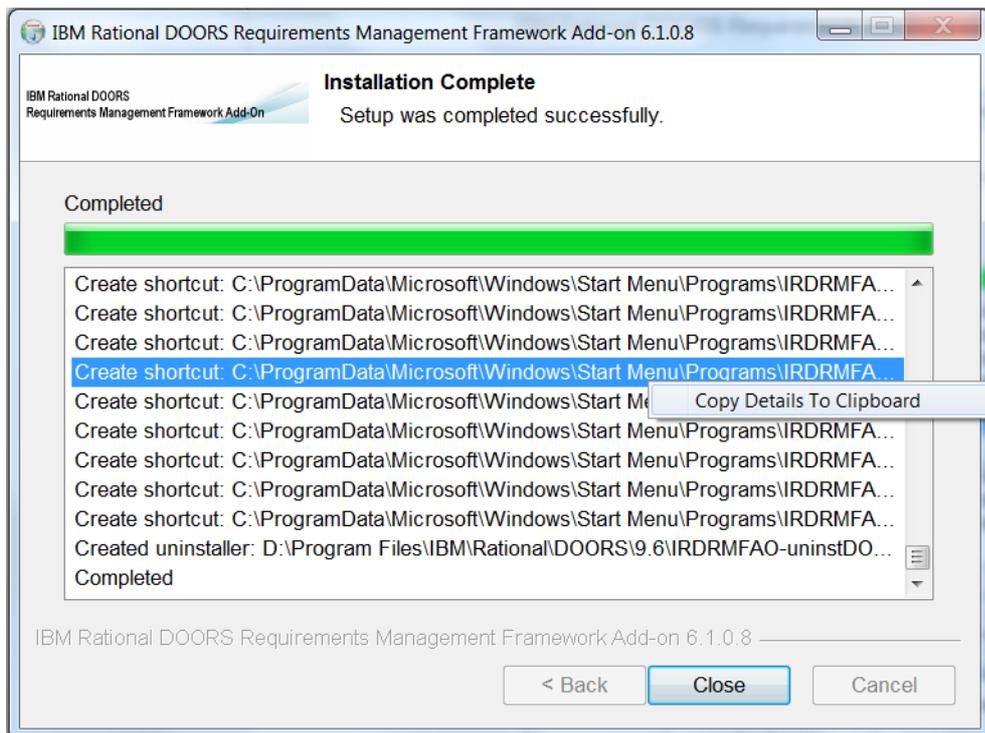
Whenever you encounter the error below, please make sure to close all MS Word windows and click “Retry”:



### 3.7 End of installation

During installation phase, the **GraphvizContainer** executable is registered as an OLE server:



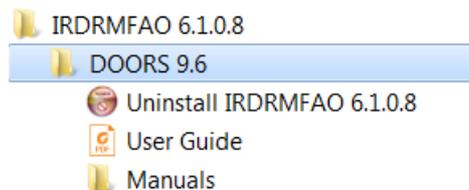


Click the “Show details” button to see all the actions performed.

You can copy the text displayed by right-clicking on the list and then running the “Copy Details To Clipboard” command.

After the installation of IRDRMFAO, you may check the correct execution of the setup program:

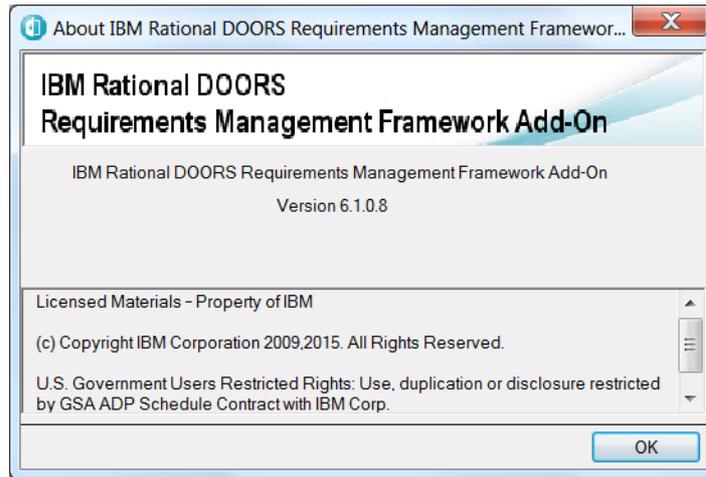
1. A new menu will appear in the Windows start menu and you will have some shortcuts to the IRDRMFAO documentation and the shortcut to uninstall IRDRMFAO.



2. Execute the DOORS client to access to the DOORS data base.

You should have a RMF menu in the DOORS explorer tool, and also in the module windows.

Run the About operation in the RMF menu (for project and for module), a dialog box should be displayed as :



3. Open a Word document.. You should be able to see the IRDRMFAO menu bar, as in:



If the menu bar is not visible, the **irdrmfao.dot** file has not been copied into the Office startup directory and is not visible as a Word complement.

Current version is 1.17. The macros are digitally signed and therefore no longer require your MS Word security options to be lowered to the level “Medium”.

## 4 Silent Installation

IRDRMFAO supports Silent Installation mode.

The installer runs with interaction, and read some parameters into a response file instead.

### 4.1 Create the response file

The response file shall be called “IRDRMFAO.INI” and be located in the same directory as the installer.

This “IRDRMFAO.INI” file shall have the following content :

```
[SilentInstall]
InstallMode=full OR workstation
DoorsVersion=<version number (see examples below)>
InstallDir=<directory in which IRDRMFAO will be installed - useful ONLY in full mode>
IrdrmfaoDir=<directory of the remote installation of IRDRMFAO - required ONLY in workstation mode>
```

2. DOORS version number format : <major>.<minor>

Example: 9.5

3. If the DOORS version provided is not one of the available DOORS versions, then IRDRMFAO is by default installed for the most recent version of DOORS.

Some examples below:

```
[SilentInstall]
InstallMode=full
DoorsVersion=9.5
```

```
[SilentInstall]
InstallMode=full
DoorsVersion=9.5
InstallDir=D:\Software\RMF\v6.1
```

### 4.2 How to run the installer in silent mode

The response file shall be located in the same directory as the installer.

Then simply run the installer passing /S on the command line (case sensitive) :

```
ratlDOORS_RequirementsFrmwork_6-1-0-8.exe /S
```

You can also request the creation of a log file that will contain an error message whenever the installation fails.

```
ratlDOORS_RequirementsFramework_6-1-0-8.exe /S /LOG=<file path>
```

*Examples :*

```
ratlDOORS_RequirementsFramework_6-1-0-8.exe /S
/LOG=C:\temp\IRDRMFAO.log
ratlDOORS_RequirementsFramework_6-1-0-8.exe /S
/LOG="C:\IRDRMFAO\IRDRMFAO.log"
```

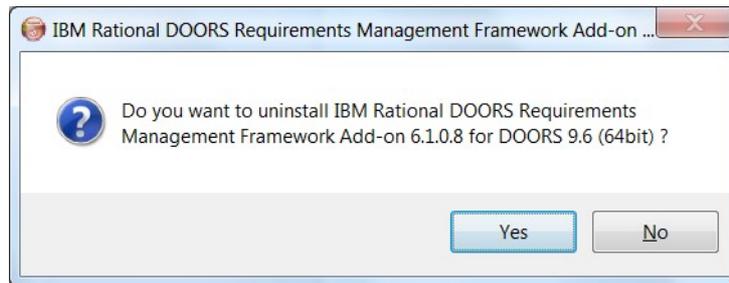
The IRDRMFAO installer returns an error level as a result of its execution, and write the following error messages into the log file :

<i>Error level</i>	<i>Comment</i>	<i>Content of the log file</i>
0	Normal execution (no error)	
2	Installation aborted by script	IRDRMFAO installation aborted : the response file IRDRMFAO .ini is missing
3		IRDRMFAO installation aborted : invalid parameter 'InstallMode' in the file : IRDRMFAO.ini
4		IRDRMFAO installation aborted : none of the supported DOORS versions is installed
5		IRDRMFAO installation aborted : bad or missing parameter 'IrdrmfaoDir' in the file : IRDRMFAO.ini

## 5 Uninstall IRDRMFAO

To uninstall IRDRMFAO, use the shortcut in the start menu or in the “Add/remove Programs” within the Control Panel.

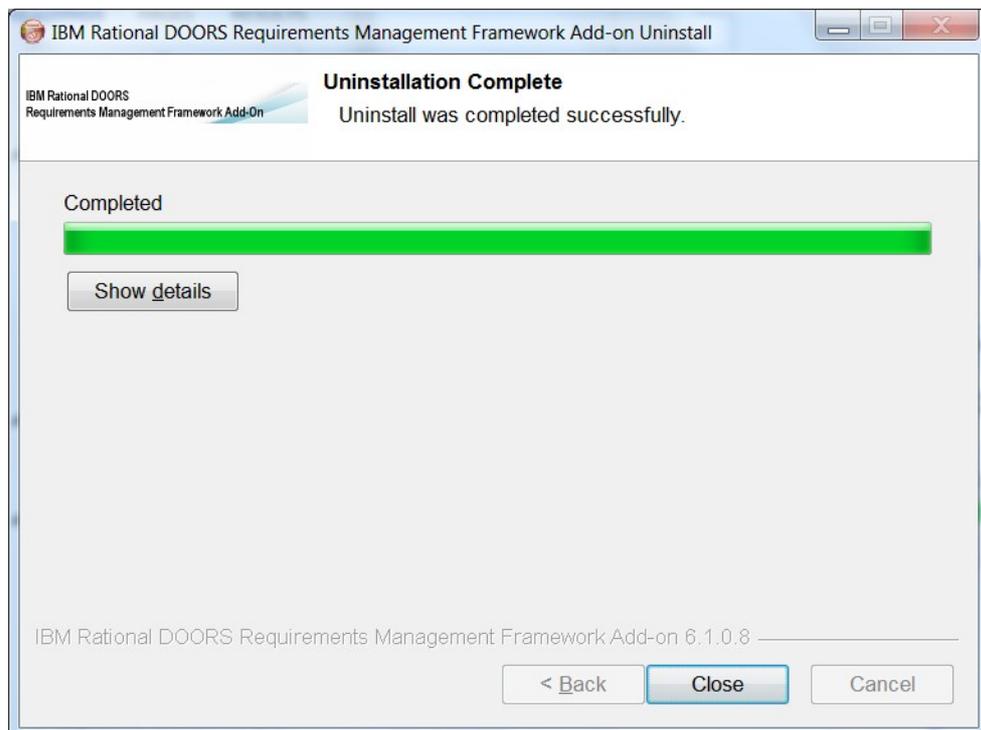
### 5.1 Confirm uninstallation

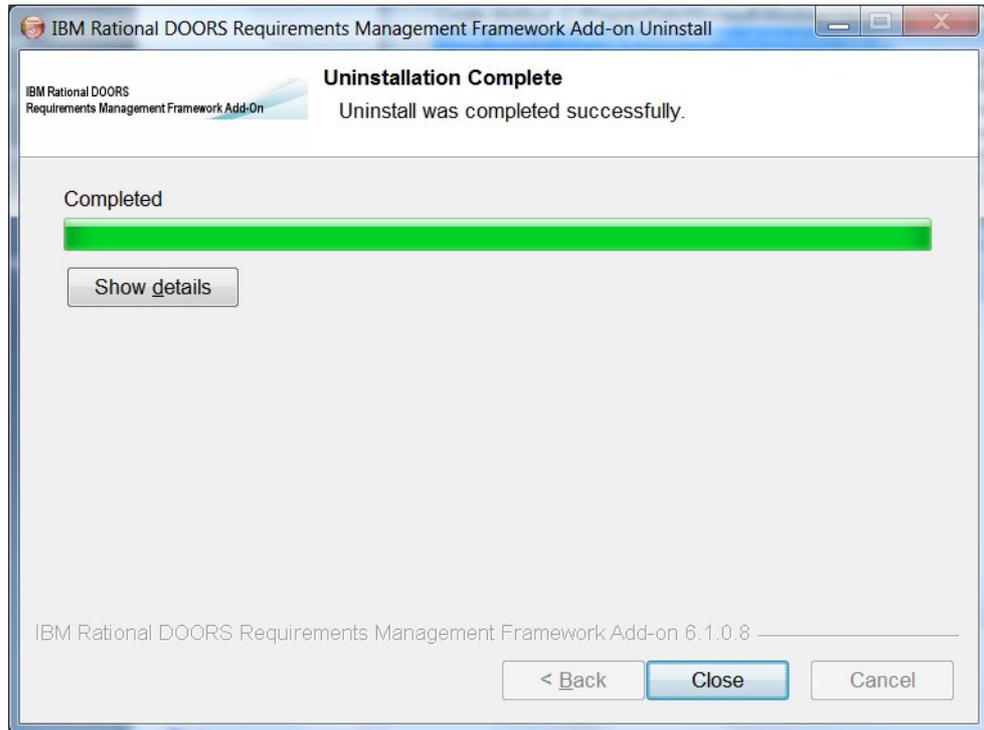


Before beginning the uninstallation, the Wizard will ask you if you want to remove IRDRMFAO.

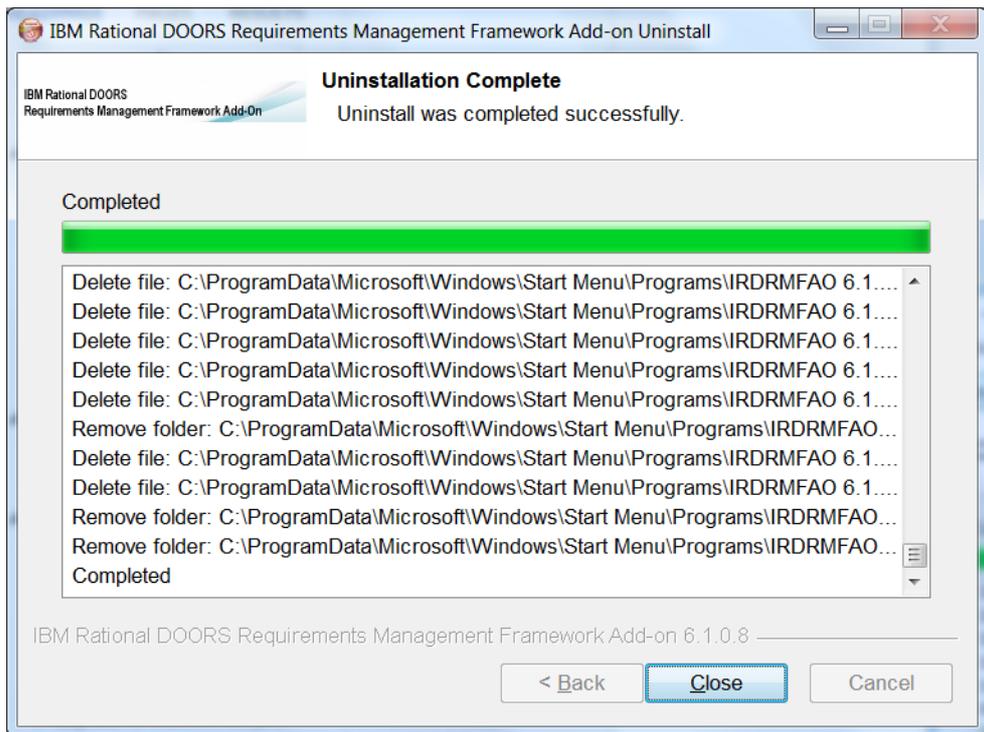
### 5.2 Do uninstall

Then the installer displays another confirmation window which indicates in which directory the version of IRDRMFAO about to be uninstalled is located:





Click the “Show details” button to see all the actions that have been performed during the uninstallation process.



## 6 Modifications in the environment

When installing IRDRMFAO, some modifications of your standard DOORS environment occur. Several files are added into the IRDRMFAO standard directories.

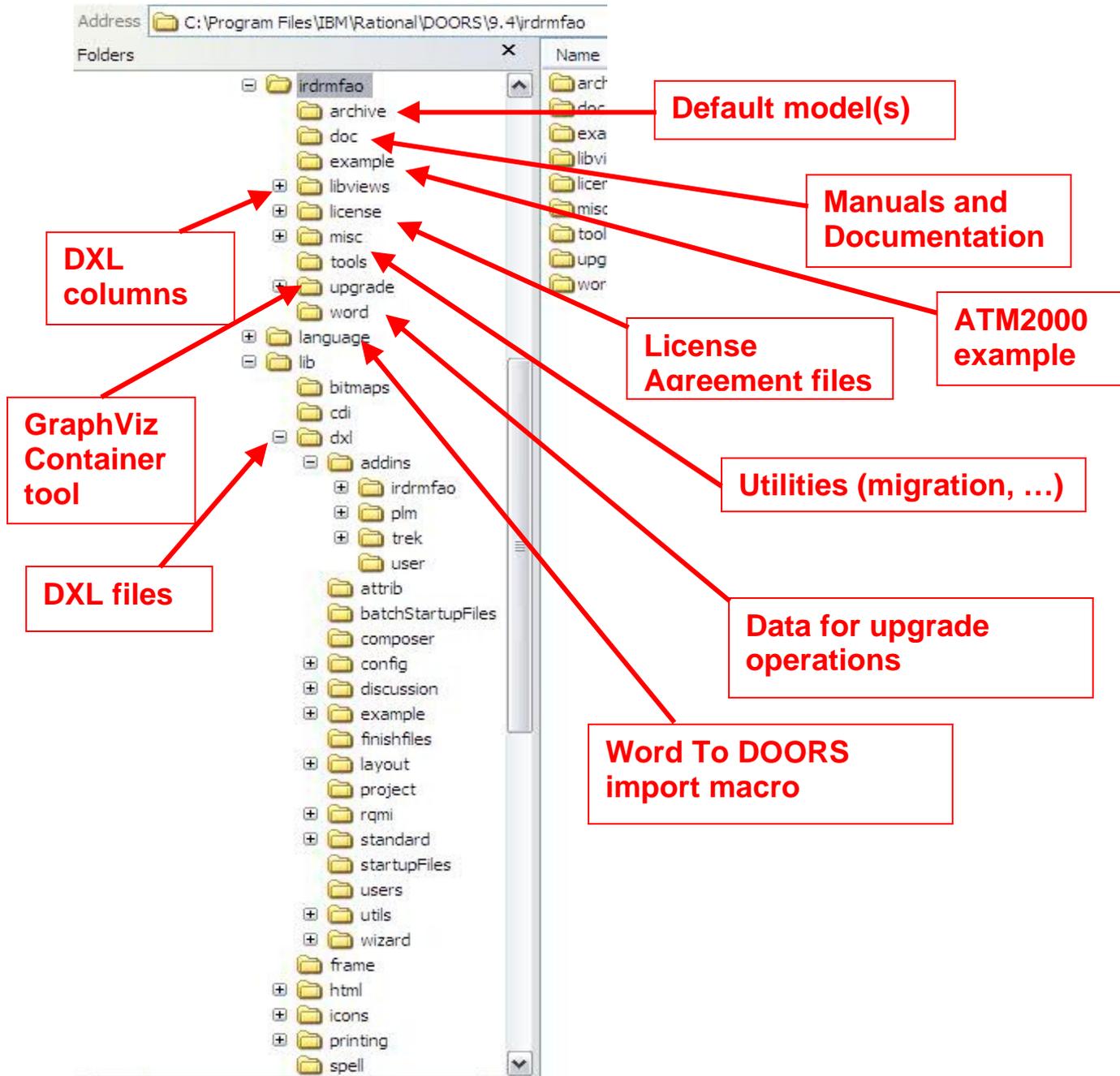
Example for DOORS 9.4:

The screenshot shows the file explorer for the directory `C:\Program Files\IBM\Rational\DOORS\9.4`. The following table summarizes the modifications indicated by the red arrows:

Target Folder	Description of Modification
<code>trek</code>	for compatibility with projects created with TREK. Does not impact IRDRMFAO.
<code>irdrmfao</code>	irdrmfao.dxl added to define global IRDRMFAO definitions and function in batch mode.
<code>batchStartupFiles</code>	irdrmfao.dxl added to define IRDRMFAO Project menu.
<code>config</code>	irdrmfao.dxl added to define IRDRMFAO module menu.
<code>formalFiles</code>	irdrmfao.dxl added to define IRDRMFAO popup object menu.
<code>startupFiles</code>	irdrmfao.dxl added to define global IRDRMFAO definitions and functions.

These files are added in case of default installation or out of place installation. In case of an out of place installation, the IRDRMFAO install may be anywhere in the file system. These files are source DXL files, but they do not contain DXL definition, but only includes to DXL source files that are located always in the IRDRMFAO install directory.

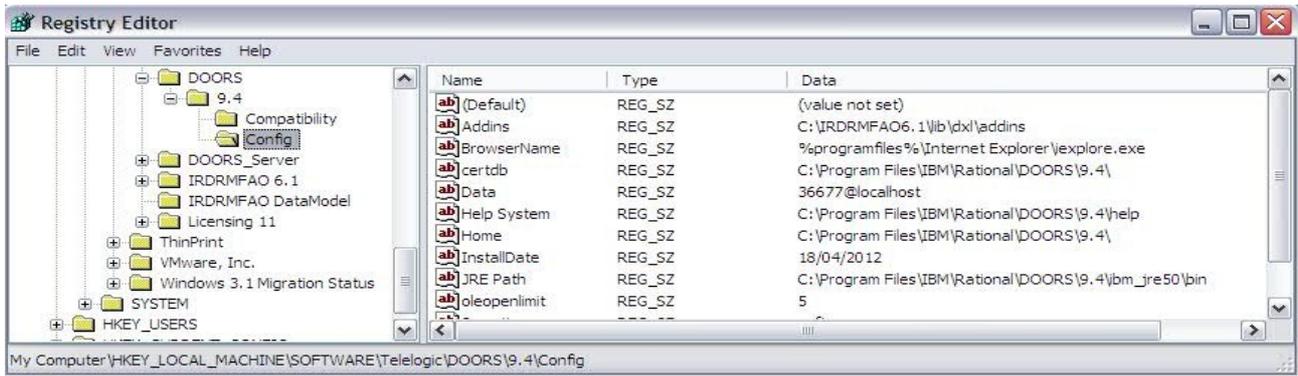
The structure of the IRDRMFAO files is displayed in the next figure:



In case of default installation, the “IRDRMFAO ” directory is replaced by the DOORS install directory, for example: “C:\Program Files\IBM\Rational\DOORS\9.4”.

The **irdrmfao.dot** Word complement file should be automatically installed into the standard Office startup directory, if not; it is required to copy by hand this file into the right place.

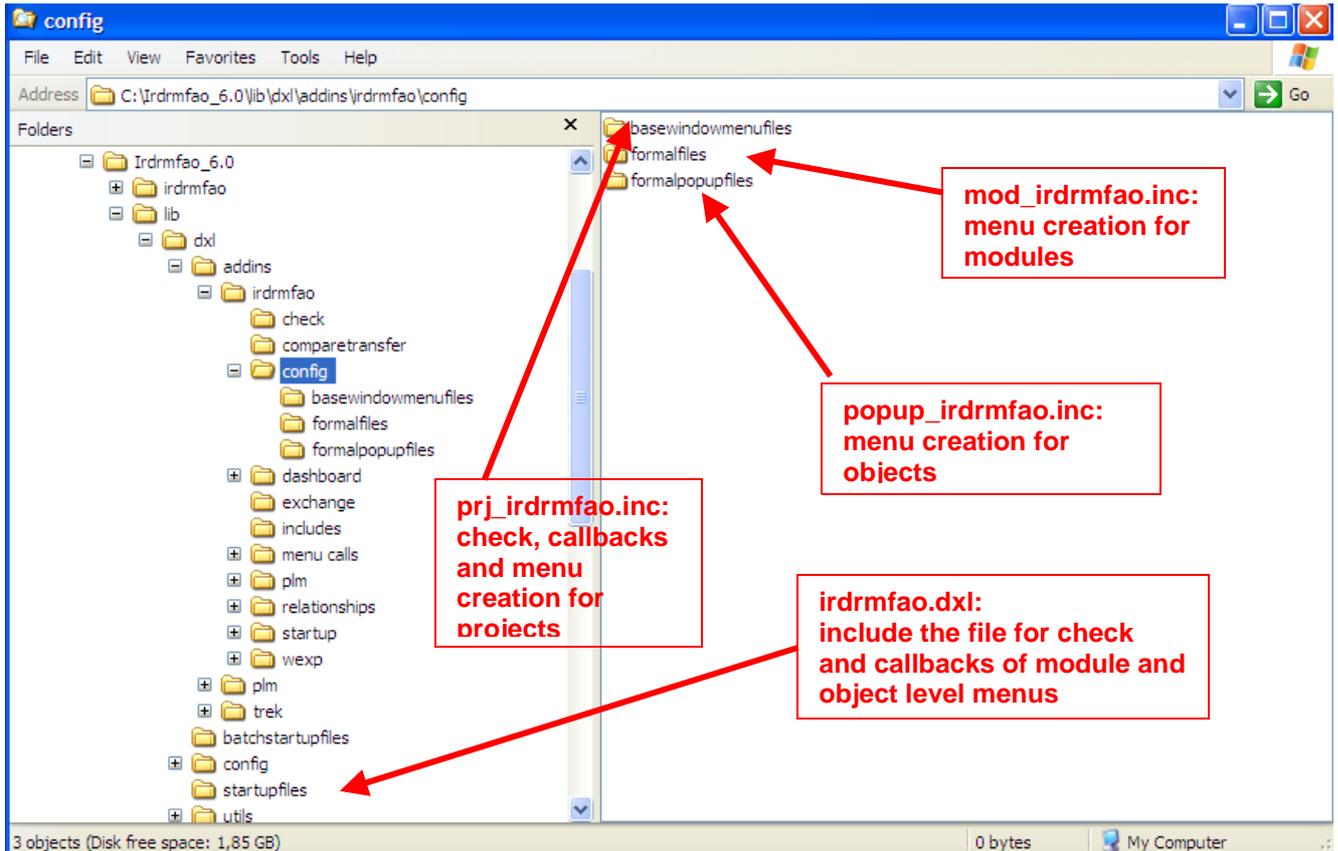
In case of out of place install, the setup program modifies the registry key **Addins**, allowing defining the list of complementary directories:



# 7 Menu configuration

All the IRDRMF AO menus are dynamically created and checked. The corresponding code is not unencrypted, and it is possible to change these menus. Only people with a good knowledge of DOORS and IRDRMF AO should modify these files that are coded into DXL.

The different files that are involved into the IRDRMF AO menu creation are:



Example: RMF menu for projects

```

...
#include <addins/irdrmfao/startup/usercallout/fctusercallouts.inc>
#include <addins/irdrmfao/startup/config/fctdefs.inc>
#include <addins/irdrmfao/startup/config/basecheck.inc>

////////////////////////////////////
///

// utility function to create a menu

void RMF_declareMenu (string sName, int checkFunction())
{
    createMenu (checkFunction, sName, null, null)
}
void RMF_declareItem (string sName, int checkFunction(), void executeFunction())
{
    createItem (checkFunction, executeFunction, sName, null, null, modKeyCtrl,
        null ,null, sName, sName)
}
    
```

```

}
...
const string RMF_MENU_RMF = "RMF"
int RMF_MENU_RMF_check()
{
    return menuAvailable_
}
const string RMF_ITEM_CREATE_PROJECT = "Create/Tag a RMF Project"
void RMF_ITEM_CREATE_PROJECT_exec() {eval_ "#include <addins/irdrmfao/menu
calls/project/CREATE_P.DXL>"}
int RMF_ITEM_CREATE_PROJECT_check()
{
    User u = find()
    if (null u)
        return menuUnavailable_
    UserClass c = u.class
    if (c != databaseManager)
        return menuUnavailable_
    Folder f = current
    if (null f || !canControl(f))
        return menuUnavailable_

    return menuAvailable_
}
...

// RMF menu
RMF_declareMenu (RMF_MENU_RMF, RMF_MENU_RMF_check)

RMF_declareItem (RMF_ITEM_CREATE_PROJECT, RMF_ITEM_CREATE_PROJECT_check,
    RMF_ITEM_CREATE_PROJECT_exec)
RMF_declareItem (RMF_ITEM_CONFIGURE_PROJECT, RMF_ITEM_CONFIGURE_PROJECT_check,
    RMF_ITEM_CONFIGURE_PROJECT_exec)
RMF_declareItem (RMF_ITEM_CREATE_MODULE, RMF_ITEM_CREATE_MODULE_check,
    RMF_ITEM_CREATE_MODULE_exec)

separator

RMF_declareMenu (RMF_MENU_EXPLORE, RMF_MENU_EXPLORE_check)
    RMF_declareItem (RMF_ITEM_INDEX, RMF_ITEM_INDEX_check, RMF_ITEM_INDEX_exec)
    RMF_declareItem (RMF_ITEM_SCOPE, RMF_ITEM_SCOPE_check, RMF_ITEM_SCOPE_exec)
    separator
    RMF_declareItem (RMF_ITEM_EXPLORE_MODEL, RMF_ITEM_EXPLORE_MODEL_check,
        RMF_ITEM_EXPLORE_MODEL_exec)
    RMF_declareItem (RMF_ITEM_EXPLORE_PROJECT, RMF_ITEM_EXPLORE_PROJECT_check,
        RMF_ITEM_EXPLORE_PROJECT_exec)
    RMF_declareItem (RMF_ITEM_EXPLORE_MODULE, RMF_ITEM_EXPLORE_MODULE_check,
        RMF_ITEM_EXPLORE_MODULE_exec)
end menu
...

```

## 8 Troubleshooting

If DOORS reports some errors after the installation of IRDRMFAO, check:

- That the file named **irdrmfao.dxl** exists in the **config** and **startupfiles** directories of DOORS.
- Checks the content of the other files in the same directories, to detect any conflict between the IRDRMFAO files and the other files.
- Checks the content of the file “**...Migration.dxl**”, in the **startupfiles** directory. Suppress any IRDRMFAO file inclusion found in this file.
- Check the content of the predefined **startup.dxl** file.

Always remove the previous version of IRDRMFAO (or any installed T-REK version) before reinstalling IRDRMFAO.

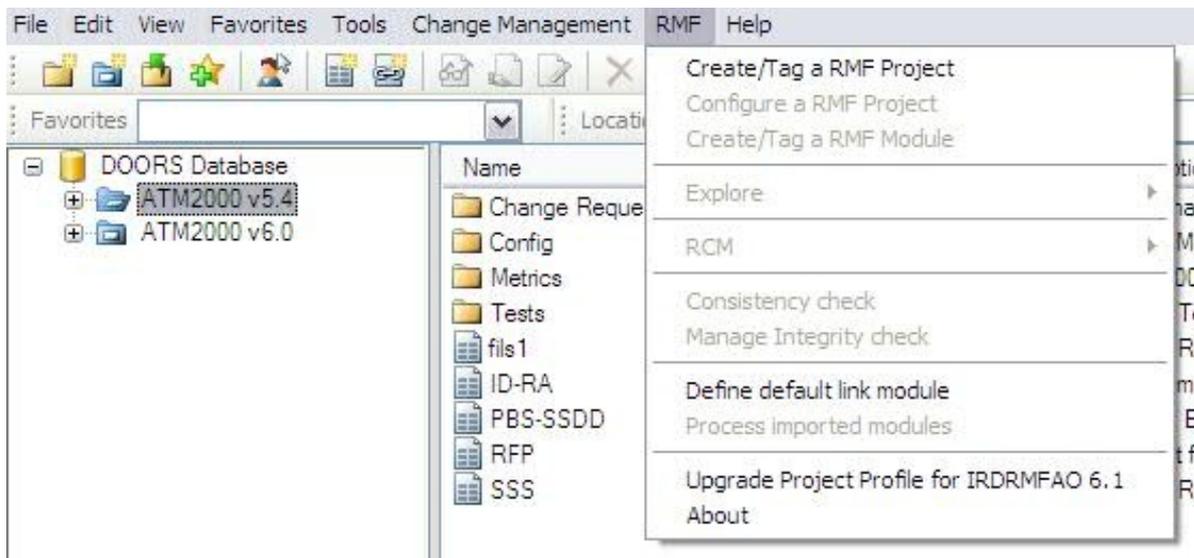
## 9 Upgrade of IRDRMFAO projects

IRDRMFAO 6.1.0.8 commands are available only for project updated or created for IRDRMFAO 6.1.0.8.

If your project is not updated, then you will be able to run the command “Upgrade Project Profile for IRDRMFAO 6.1”. This upgrade makes the project configuration compatible with IRDRMFAO 6.1.0.8, no matter the version of IRDRMFAO or DOORS T-REK that you were using before.

The project data are not modified by the upgrade, nor the existing module types in project configuration, except in case of migration of a previous DOORS T-REK version, with the RCM component deployed on the project. In this last case, because of the modification of the RCM trigger management, the old RCM triggers at **project level** are deleted and created again, but at **module level**.

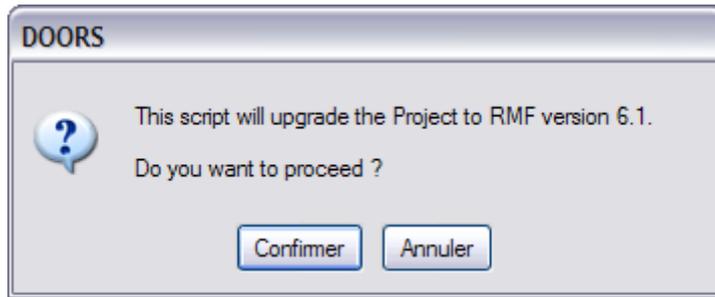
Example:



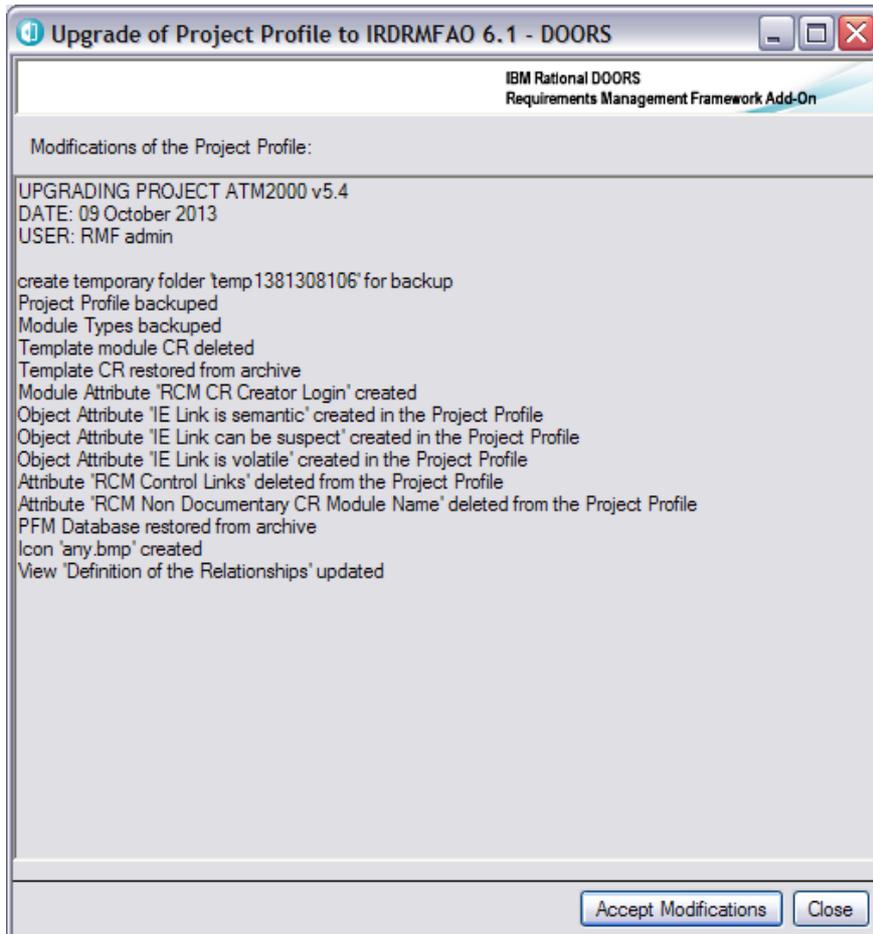
The “Upgrade Project Profile for IRDRMFAO 6.1” command is visible only for the RMF projects not yet compatible with IRDRMFAO 6.1.

The execution of this operation will extend the “Project Profile” of your project, and will add some new module types in the “Module Types” folder.

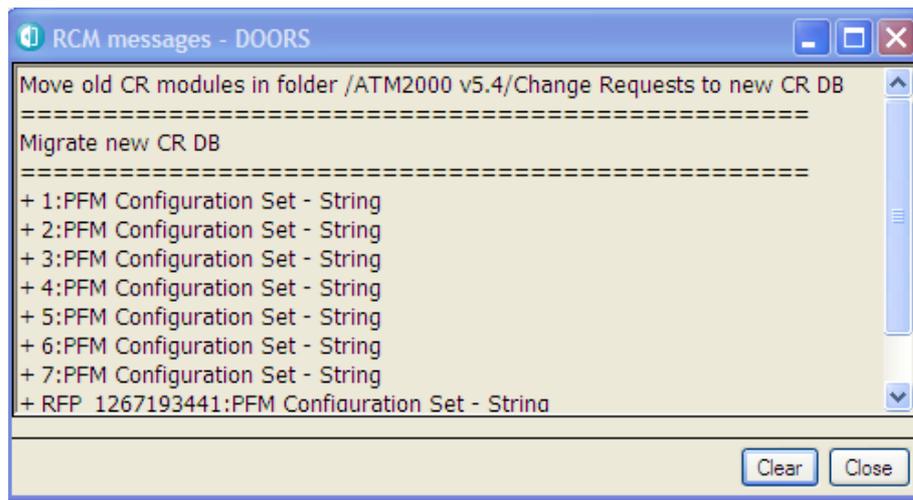
- Execute the “Upgrade” operation



- Accept the modifications



- If RCM has been previously deployed on the project, the CR project database structure is checked to be modified if required (for old T-REK versions) and the CR modules are upgraded according to the current CR template



The modifications done in the Project Profile depend on the previous version of IRDRMFAO (or TREK) used on the project.

The upgrade adds all the definitions required by the new version of IRDRMFAO.

For example, an upgrade from TREK 5.2 to IRDRMFAO 6.1 brings the following modifications:

```

Template module NON_DOC_CR_LIST deleted
Template module CR deleted
Template CR restored from archive
Object Attribute 'IE Priority' created in the Project Profile
Object Attribute 'IE Model View deleted in the Project Profile
Object Attribute 'IE View Name created in the Project Profile
Object Attribute 'IE View' created in the Project Profile
Module Attribute 'RCM CR Impact Mandatory' created in the Project
Profile
Module Attribute 'RCM CR Creator Login' created
Object Attribute 'IE Is Contextual Attribute' created in the Project
Profile
Object Attribute 'IE Link is semantic' created in the Project Profile
Object Attribute 'IE Link can be suspect' created in the Project Profile
Object Attribute 'IE Link is volatile' created in the Project Profile
Module Attribute 'IE Spooler Administrator' created in the Project
Profile
Module Attribute 'IE Spooler Name' created in the Project Profile
Module Attribute 'IE PFM Configuration Index' created in the Project
Profile
Module Attribute 'RCM Is Specific Version Code' created in the Project
Profile
Module Attribute 'RCM Detect links to working obj with different CR'
created in the Project Profile
Module Attribute 'RCM Repair Link Modification' created in the Project
Profile
Attribute 'RCM Control Links' deleted from the Project Profile
Attribute 'RCM Non Documentary CR Module Name' deleted from the Project
Profile
Section 'Definition of the Views' created in the Project Profile
Section 'Definition of the icons' created in the Project Profile
Module Type 'Non Documentary CR List' deleted
Template 'NON_DOC_CR_LIST' deleted
PFM Database restored from archive
Icon 'any.bmp' created
Icon 'cr.bmp' created
Icon 'db.bmp' created
Icon 'di.bmp' created
Icon 'id.bmp' created
Icon 'ivv.bmp' created
  
```

```
Icon 'pbs.bmp' created
Icon 'sr.bmp' created
Icon 'ur.bmp' created
View 'Definition of the Templates' created
View 'Definition of the Relationships' updated
View 'Definitions of the Model Views' deleted
View 'Definition of the Views' created
View 'Definition of the Icons' created
```

The “technical” templates in the **Module Types** folder may be replaced. Those templates used by tools are:

- CR: Change Request template. Used by RCM.
- DASHBOARD: Dashboard template, used by Dashboard.
- DI: Document Index, used by DOC.

The upgrade does not modify any actual data of your project.

To complete the upgrade of your project, you will probably have to upgrade your already existing templates and your project modules as well.

Since RMF 6.1.0.8, the upgrade no longer offers to open the Project configuration window (as it sometimes generated some errors).

## 10 Client configuration

DOORS allow you to give parameters on the command line of the shortcut used to execute the DOORS client. The list of parameters may be found in the DOORS standard documentation.

Here you can find some useful examples.

### **Connexion to a database server different from the standard one**

**-data** *36677 @ my\_server*

may be used to define the DOORS server from which the data should be downloaded (in the example on the port *36677* of the *my\_server* computer)

### **Connexion with a user name already defined**

**-user** *my\_name*

may be used to define the DOORS login name.

### **Installation of IRDRMFAO on an application server (or file server)**

**-addins** or **-a** "*\\app\_server\IRDRMFAO\lib\dxl*"

to define a directory to find the IRDRMFAO addins. This information may be also entered in the registry configuration of the DOORS client, or in the "ADDINS" environment variable. In the example *app\_server* is the name of the computer used as application server.

**-dxl** "*#include <\\\\app\_server\IRDRMFAO\lib\dxl\startupfiles\irdrmfao.dxl>*"

to specify a startup file. This parameter cannot be defined in the registry.

These parameters allow you to have different IRDRMFAO contexts. You should notice that the command line has a limited size, in case of overflow you may define these three values as a combination of registry/environment variables values and command line.

Also, it is required to add the **irdrmfao.dxl** files in the standard DOORS **config** directory.

# 11 Complements

IRDRMFAO is delivered with some sample or utility DXL script files.

Content of the directory <b>irdrmfao\misc\addins</b>	
History.zip	DOC complement useful to generate a revision table based on the changes between the versions of a document.
lib_no_irdrmfao.zip	Files needed on a DOORS client installation to edit a module created with RMF.
RMF_kitchen.zip	RMF kitchen scripts. To install it, unzip it in the directory DOORSHOME\lib\dxl\addins

Content of the directory <b>irdrmfao\misc\api</b> (Example of the use of the RCM & PFM API)	
check_module_rcm.dxl	This example script demonstrates how to look into a module under RCM control, to get the list of requirements, the list of versions and the CR associated with each new version.
compare_modules.dxl	example showing how to compare modules using the 'Hierarchical' comparison method.
modify_module_rcm.dxl	Example of the modification of a RCM controlled module: -create a CR -create a new object -create a new version (modification) -accept the CR
set_module_rcm.dxl	Sets a module under RCM control.
integrity_check.dxl	This script demonstrates how to run the integrity check on a list of modules. There are actually 2 examples: <ul style="list-style-type: none"> <li>• the first one applies the checks defined at the project level or at the module level (if redefined there)</li> <li>• the second applies the checks defined in this script</li> </ul> (This script is available since version 6.1.0.8 only but is backward compatible)

Content of the directory <b>irdrmfao\misc\attributes</b> (DXL attributes)	
ie_puid.dxl	code to create "IE PUID" as a DXL attribute whose value is

	based on "absolute number"
rcm_last_in_ref.dxl	code to create a DXL attribute indicating whether a controlled object version is the last version in reference

Content of the directory **irdrmfao\misc\migration**

migrate-doc-index.dxl	<p>This script has been added in RMF 6.1.0.1.</p> <p>It is useful to migrate the document index modules of all the RMF 6.1 projects of the database so that they are compatible with RMF 6.1.0.1 (or higher).</p> <p>Indeed, starting from this version, the checksum algorithm has changed and the checksums of the document index modules created before must be computed again.</p> <p>Alternatively, you can simply run "RMF &gt; Manage documents" and open all the document index modules one after another to migrate them.</p> <p>The script relies on the project index modules to find the document index modules.</p> <p>Please run this script with either the "Administrator" user account or with a user account with the "DOC Administrator" role (if not the document index that the user has not access to will be ignored)</p>
migrate-rcm.dxl	<p>This script migrates the modules under RCM control created with TREK 5.2 (or a previous version). It either migrate all the modules of the project of only those located in the current folder (and subfolders).</p> <p>This script :</p> <ul style="list-style-type: none"> <li>- creates new RCM attributes and sets their values</li> <li>- makes sure that all the controlled object versions have an impact object (this was not the case for the first version previously)</li> <li>- updates the impact objects</li> </ul>
migrate-rcm-batch.dxl	Same as previous. Meant to be run in batch mode.
patch-dashboard.dxl	<p>This script is useful to update the dashboard modules that have been created before IRDRMFAO v5.4</p> <p>It recursively scans the database (reading modules) from the current folder to find and upgrades all the dashboards</p> <p>You need write access to the installation directory of IRDRMFAO to perform this upgrade.</p>
patch-puid.dxl	<p>This script is useful to fix the DXL columns and DXL attributes of modules created with TREK.</p> <p>The script fixes the regular expression "[\\]" that is no longer supported and also performs some other modification for compatibility with DOORS Web Access.</p> <p>It can be used on a module or recursively on a folder or a project.</p>

	It can be used in batch mode, in which case a log file will be created (the environment variable LOG_FILE can be used to define the location of the log file)
upgrade-all-projects.dxl	This script upgrades all the RMF projects of the database to the current version of RMF.

Content of the directory <b>irdrmfao\misc\model</b>	
define_description.dxl	set the descriptions of views and attributes according the configuration file model.txt
synchronize_definitions.dxl	This script synchronizes all the modules of the project with the definitions of their templates.

Content of the directory <b>irdrmfao\misc\other</b>	
restore_cancelled.dxl	example of restoration of a requirement from the information saved into a cancel CR
restore_links.dxl	use of the history to restore links
rmf_project_archive.dxl	<p>This script archives a RMF project into a zip file that can then be restored using the companion script "rmf_project_restore.dxl".</p> <p>It archives not only the project but also the configuration files managed by RMF.</p> <p>The purpose of both script is to enable archive and restoring a RMF project in such a way that it is fully ready for use.</p>
rmf_project_restore.dxl	<p>This script restores a RMF project from a zip file created using the companion script "rmf_project_archive.dxl".</p> <p>It first restores the project then import the hidden files (used by DOC, RCM and the Explorer).</p> <p>Last it does some post-processing to render the RMF project fully ready for use (updating the module references in the Project Index, the Change Request modules, the DOC index modules).</p> <p>The post-processings can be interrupted and be resumed by running the script again.</p>
unlockbsd.dxl	unlock a baseline set definition

Content of the directory <b>irdrmfao\misc\pfm_browser</b>	
pfmuserdefs.inc	Implementation of the user-defined commands of the PFM browser

Content of the directory <b>irdrmfao\misc\project_index</b>
---

create_index.bat	Create the Project Index of a project in batch
create_index.dxl	
update_index.bat	Update the Project Index of a project in batch
update_index.dxl	

Content of the directory <b>irdrmfao\misc\wexp</b>	
batchwexp.dxl	execution of WEXP without interaction and possibly in batch mode
docwexp.dxl	execution of WEXP without interaction to export all the master modules of a document

Content of the directory <b>irdrmfao\misc\wexp_spooler</b>	
<b>batch management of the WEXP spooler</b>	
spooler_getlog.bat	
spooler_pause.bat	
spooler_reall.bat	
spooler_remlocks.bat	
spooler_restart.bat	
spooler_stop.bat	
startspooler.bat	

## 12 Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send written license inquiries to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send written inquiries to:

Intellectual Property Licensing  
Legal and Intellectual Property Law  
IBM Japan, Ltd.  
19-21, Nihonbashi-Hakozakicho, Chuo-ku  
Tokyo 103-8510, Japan

**The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:**

**INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

Some states do not allow disclaimer of express or implied warranties in certain transactions. Therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it

believes appropriate without incurring any obligation to you. Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

Intellectual Property Dept. for Rational Software  
IBM Corporation  
5 Technology Park Drive  
Westford, MA 01886  
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

## Trademarks

IBM, the IBM logo, and [ibm.com](http://ibm.com) are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at [www.ibm.com/legal/copytrade.html](http://www.ibm.com/legal/copytrade.html).

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other company, product, or service names may be trademarks or service marks of others.