

# IBM® Rational® DOORS® Requirements Management Framework Add-on 6.0.0.3

## Release notes

### Compatibility Table

	DOORS					MS WORD					
	v 8.3	V 9.0	V 9.1	V 9.2	V 9.3	W97	W2000	W XP	W2003	W2007	W2010
IRDRMFAO 6.0	X	X	X	X			X	X	X	X	
IRDRMFAO 6.0.0.1	X	X	X	X	X		X	X	X	X	X
IRDRMFAO 6.0.0.2	X	X	X	X	X		X	X	X	X	X
IRDRMFAO 6.0.0.3			X	X	X		X	X	X	X	X

## **IBM® Rational® DOORS® Requirements Management Framework Add-on 6.0.0.3**

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Some previous versions of this product were delivered by Telelogic as an Asset named DOORS T-REK.

Any installed version of DOORS T-REK or previous version of IBM® Rational® DOORS® Requirements Management Framework Add-on must be uninstalled before installing IBM® Rational® DOORS® Requirements Management Framework Add-on 6.0.0.3.

Whenever RCM was used, please remove all the RCM triggers before uninstalling DOORS T-REK.

The FLEXLM feature required to execute IRDRMFAO is different from the DOORS T-REK license feature. The new feature is “IRDRMFAO” (instead of “DTREK”).

### **Compatibility**

- This version is compatible with DOORS 9.1 , DOORS 9.2 and DOORS 9.3.
- It is also compatible with the different versions of DOORS WEB ACCESS.
- This version is compatible with Office 2000, Office XP, Office 2003, Office 2007 and Office 2010.

### **Enhancements implemented in RMF 6.0**

#### **1) PFM (Product Family Management)**

PFM is a solution to manage requirements in a Product Line Engineering context. PFM enables to create a generic definition of a product (or system) with optional parts, alternatives and configurable requirements, and then derive the actual products (or systems) from it.

PFM also manages parallel development and synchronization between the generic definition of the product and the actual products.

This version includes the following functionalities:

- Manage a product line
  - Ability to create
    - Generic packages and sub-packages
    - Private/shared/public criteria
    - Sets of criteria
    - Private/shared/public parameters
  - Reorganize the product line
    - Move packages and sub-packages

- Move criteria and parameters from one (version of) package to another
- Baseline configurations
  - Integration with DOC
- (Compare and) Synchronize configurations
  - Add/remove/modify criteria and parameters
  - Apply Change Requests created in a configuration into another configuration
  - Merge the parallel versions of requirements that may have resulted from a synchronisation
- Write generic specifications
  - Either under RCM control or not
  - Specify configurable requirements with parameter(s) either defined locally (in the object itself) or at the package level.
  - Attach applicability conditions to individual requirements or whole chapters
- Miscellaneous
  - Dashboard integration
  - WEXP integration

## 2) DOORS 8.2 and DOORS 9 enhancements

All the view configuration options added by DOORS 8.2 and DOORS 9 are now supported. This includes:

- Main column autoindent
- Module explorer filtering
- Discussion columns
- Description of attributes and views

The generic model and the example project are now delivered in two different versions, one for DOORS 8 and the other for DOORS 9. For example the DOORS 9 example includes the RMF default data model descriptions for attributes and views. Some view names in the templates have been renamed to be more consistent. A script is also provided in the “Misc” folder to allow people to write their own descriptions and to add it into the existing DOORS data.

## 3) Menus

RMF 6.0 provides a means to easily disable and hide the functionalities that are unused in each project independently.

The functionalities that can be disabled and hidden are :

- RCM,
- PFM,
- DOC
- WEXP

- CHECK (of Integrity)
- Dashboard
- Exchange

These settings are done in the configuration of the project, in a new tab named "VISIBILITY". Each functionality can have one status out of the following 3 :

- **Show** : The functionality is visible, provided the current user has the required role and is in the relevant context
- **Hide** : The functionality is hidden
- **Default** : The functionality is visible unless another equivalent tool is installed (e.g. **WEXP is disabled if RPE is installed**)

The whole logic is implemented into non encrypted DXL files, allowing users to redefine this behaviour.

For instance the way the status "Default" is handled is implemented in the new file: \$TREKHOME/lib/dxl/addins/irdrmfao/startup/usercallouts/ftusercallouts.inc

#### 4) Explorer

Some menu evolutions have been done, to increase the ergonomics of the tool. A new capability has been added: the explorer is able now to be dynamically synchronised with DOORS, without having to stop and restart it. The operation "Refresh project content" is able to update all Explorer project data.

#### Corrections implemented in RMF 6.0.0.3

Component	APAR	Description
Copy views		A DXL error may occur in file synchronize.inc at line 1501 in RMF 6.0.0.2 (and on a different line in other versions) : "An unexpected error has occurred".
Create/Tag a RMF Module	<a href="#">PM46489</a>	The pseudo attributes such as 'Object Number' are not supported by the synchronization of views in 'Create/Tag a RMF Module'.
	<a href="#">PM48404</a>	Attributes locale is not preserved neither by the module synchronization nor by Exchange.
Dashboard		The time needed to collect metrics has been significantly reduced
DOC	<a href="#">PM40159</a>	Closing the popup window "display context" within the "generate" window may generate a DXL error <addins/irdrmfao/plm/gui/docmenus.inc:626> null dialog box (DB) parameter was passed into argument position 1
Exchange	<a href="#">PM48498</a>	Exchange fails to import a module with an error "incorrect XML data" because of unsupported characters found in DXL attr

RCM	PM45440	<p>When changing the status of a Change Request from "In Progress" to "To be reviewed" or synchronizing it, the following error message is displayed in the RCM error window:</p> <p>ERROR: Can't save impacted object structure in CR &lt;name&gt; (-R-E-DXL: &lt;addins/irdrmfao/startup/rcm/rcmdecls.inc:132&gt;)</p> <p>Despite the error message, the action is performed normally. This error message is no longer issued.</p>
	PM46084	<p>The button "Configure Module" in the window "Manage RCM" may generate a DXL error (-R-E- DXL: &lt;addins/irdrmfao/menu calls/body/config_m.inc:183&gt; invalid module specification) if the current folder is not the one of the selected module in the window.</p>
	PM46209	<p>Non-RMF controlled objects created with TREK 5.2 and below are not migrated properly by the script migrate_rcm.dxl</p>
	PM46211	<p>The RCM check can report undue errors on the composite controlled objects if they have many children objects (hundreds)</p>
		<p>Among all the new proposed target versions, the RCM suspect links GUI should display clearly those that are deleted (attribute "RCM is Tagged as Suppressed" equal to "True")</p>
		<p>Make it possible to take into account the working objects when looking for suspect links. (To do so, the project option "Let new working targets generate suspect links" must be switched ON)</p>
		<p>Enable the CR creators and the assignees to synchronize a CR whose status is working.</p>
		<p>Do not overwrite the value of the attribute "RCM Version" when setting a module under RCM control.</p>
		<p>Faster creation of a new controlled object (the CR is no longer saved twice).</p>
		<p>Enable to enter a rationale when creating a new version by double clicking on the last version.</p>
		<p>New view "12. Suspect Links" in the template CR showing the objects potentially impacted by each new version. The view "11. Delta Hightlights" is also displayed quicker. (archive 'cr.dma' available in \irdrmfao\upgrade).</p>
		<p>Whenever a descendant of a composite object in reference has been MOVED, the RCM check now simply moves it back instead of recreating the whole composite object.</p>
		<p>Whenever a descendant of a composite object in reference has been PURGED, the RCM check can now recreate the composite object from the last baseline instead of the CR.</p>

		Composite objects are no longer recorded in the CR. This enhances the performances when transitioning a CR to "completed", or setting a module under control or creating a new controlled object.
		When changing the status of a Change Request to "completed", "impacts" links are created toward the descendants of the composite objects created using the CR in order to prevent those objects from being inadvertently deleted (and purged). This behaviour can be turned OFF thanks to the constant RCM_CREATE_IMPACT_LINKS_TO_CHILD_OBJECTS in the file addins\irdrmfao\startup\usercallout\rcmusercallouts.inc
		RCM triggers run faster as their code is now loaded at the startup.
		A new controlled object shall not be created just after the selected object but after its last version instead.
		RCM workspace control box: the buttons "working" and "latest reference" should not enable the the filter contained in the current view if this view is not filtered.
RMF menu	<a href="#">PM48598</a>	The command "Search suspect links from module" should be available on any module if the project is using RCM.
		let any user with the right to create a project be able to create a RMF project, not just database managers
		Make it possible to create a new RMF project with the "Administrator" user account
WEXP	<a href="#">PM46067</a>	When inserting a view filtered using DXL Filter whose objects are to be exported as a inline table, then the DXL Filter is not applied and the filter of the inserted view is applied instead.
	<a href="#">PM47137</a>	WEXP should close the modules opened to export an inserted view as soon as the export of the view is completed.
		When revision marks are enabled, the generation is slow when the module has many baselines. The new algorithm requires only the reference baseline to be open instead of all the baselines starting from the reference baseline.
Word import macros	<a href="#">PM44277</a>	Error 5904 (Cannot Edit Range) with default options if there is a page break before the first title.
	<a href="#">PM44278</a>	The prechecks should be run only on the part of the document that will be imported to DOORS.

**Corrections implemented in RMF 6.0.0.2**

Component	CR	Description
Compare modules Transfer Analysis	1017	The analysis transfer may fail to create the attribute "TransferAnalysis_SuspicionGenerator"
	1036	the static result attribute is set only taking into account the attribute "Object Text" when using the 'hierarchical comparison' algorithm
	1044	In the transfer analysis tool, set a more verbose warning message when an object has several comparison links (only one is expected and the others are ignored)
Convert rows to objects	890	The script may fail if the first row has less cells than the other rows with an error "rowtoobj.inc:... unassigned array element (colMain[..])"
Create/Tag a RMF module	787	Sometimes the template is left open
		The synchronisation of filtered views (of a module with its template) may fail on DOORS 9.3 if DOORS is not setup in English
		The synchronization of filtered views may fail when the filter refers to attributes or values containing braces
		When a error occurs while synchronizing a module with its template, the log should remain visible if an error occurred
Dashboard	1030	the "count links" metrics can only be displayed with the format "numerical". The two other types of columns (percent and bargraph) should be disabled. The creation of a new view is now also more intuitive.
	1034	a DXL error occurs while updating the metrics if the root folder is the root of the database
	1039	the scopes of type 'fullname' are not properly processed if the path searched includes a project eg "/folder f/project p/module m" --> the module m is ignored
	1040	while updating a dashboard, some modules and folders may be ignored if their equivalent objects already exist but are deleted. New objects should be created instead.
DOC	978	display a warning whenever the expected DOORS baseline is missing (when running the "Generate Requirement History" for instance)
	1062	Cannot generate a document using a WEXP server: the button "generate document in batch" is missing
		when generating a Word document, record the filter selected (in the attribute 'DOC Filter')

Exchange	1021	while importing a file, objects should be moved even if their universal ID is not defined in the file
	1035	an object should not be deleted if one of its descendant should remain. Its attribute "XML Deleted" should be set instead.
	1063	Exchange fails when importing a deleted cell
Explorer	895	enable to take into account the WEXP attributes and types when displaying the delta between a module and its template
	1026	The explorer may display an error "Can't communicate with the Graphviz COM object" when RMF is installed in workstation mode
	1029	Project names ending by a blank generate errors when saving a view or closing the explorer
		Running the command "Analyze links" on an object filtered out generates a DXL error in projectdb.inc:3572
Generic datamodel	983	traceability columns : if several linked objects have the same PUID and same absolute number then only one of them is displayed
Install		RMF is not properly installed if the setup is run in silent mode with the option "full install" (as opposed to "workstation")
Kitchen	699	prevent the use of the script "flatten object hierarchy" in shareable edit mode
	778	the "Delete Rich Text" command adds spurious newlines and do not preserve OLE
Migration rules	849	SETOBJATTR does not work combined with a regular expression
Manage Objects	1046	the "Duplicate" button can generate errors if several objects are selected
	1047	display a more user-friendly error message when the "Duplicate" button fails to create a new object because the view is sorted
	1060	error when switching from one module to another: "invalid index 1 to attribute type IE Object Type"
PFM		contextual attributes computed more efficiently
		when editing a contextual attribute of type "String", the message "Please select a parameter" should not be displayed if the key ENTER is pressed
		Display a warning message if a contextual attribute has been edited but the modification has not been applied and is about to be lost



		Prevent from setting a contextual attribute of type Integer or Real with a value that is not of that type
Renumber PUID	1041	if a PUID does not match the expected format and is left unmodified (default "Don't modify PUID" option), then the internal counter may get incremented though under certain conditions
RCM	1049	reduce the time needed to set a module under RCM control
	1054	CR "in progress" created with a TREK version older than 5.3 are not properly migrated, which results in controlled objects remaining "in working" when the CR is accepted
	1058	the synchronize CR command may fail with an invalid lock request error message
WEXP	259	describe the limitations of the option "Use Word Revision Marks on changed objects" in the reference manual
	666	enable to rotate the column title of a table (by appending " R" to the column title in the DOORS view)
	771	The option 'allows table rows to break across pages' is ignored when exporting inserted views in RTF
	795	prevent the WORD window from switching from minimized to normal state and vice versa, to avoid slowing down the export (only occurs with MS Word 2000)
	897	Inserted views should include deleted objects (currently exported only if using the RTF mode)
	904	in a list with bullets, a bullet should not be formatted as the preceding line
	926	clarify the use of the attribute "WEXP File Name" to include sub-documents in the WEXP manual
	975	Clarify the WEXP manual about the extraction of UML diagrams: the interface with the modeling tool has to be implemented. Only the old versions of Rhapsody are natively supported.
	1024	ability to define the style for isolated OLE in the attribute Paragraph style
	1027	"WEXP traceability view" backward compatibility : the last separator (the fifth colon) should not be mandatory
	1037	do not display an error message when starting WEXP from a module that does not belong to a RMF project
	1051	when using the [Autofit to table content] setting, sometimes tables are not autofitted

	1052	WEXP cannot run in batch
	1053	when inserting a view, the value of the module attribute "WEXP Base Heading Style" (if exists) must be handled as an offset to be added to the style level of the headings --> currently doesn't work with RTF tables or templates not in French
	1059	when an object contains some text followed by an OLE, do not apply a style to the OLE to prevent the text from losing its indentation
		the formatting of the text within a DOORS table can sometimes be lost
		inline views: objects in-between 2 objects exported with the same inline view may not be exported if <ul style="list-style-type: none"> <li>- the export view is not filtered</li> <li>- and the inline view is filtered and does not display the in-between objects</li> </ul>
Word macros file	767	Heading numbers are always removed even when the option "Remove heading numbers" is off Rename this option "Record heading numbers" which is ON shall record the heading numbers into the object attribute "IE Original Heading number"
	930	if the target module already exists, the "Module description" field is active and accept input, but though the description input is subsequently discarded
	931	the boolean values of the user defined properties shall not be recorded in the regional language but in English
	1012	sign the macros contained in the file "irdrmfao.dot" so that the macro security level can be set to High
	1045	Extra characters may be displayed at the beginning of the "current DOORS path" field when using DOORS 9.3 with regional settings different from English
Miscellaneous	1042	DXL errors in the file "no_rmf_startup.dxl" available in the free addon "lib_no_irdrmfao.zip" allowing to open, without RMF, modules edited using RMF

**Corrections implemented in RMF 6.0.0.1**

Component	CR	Description
RCM	972	Error when assigning a CR to a user that belongs to the group of CR managers : ERROR: Cannot modify the access rights of 'CR' : The user 'admin TREK' doesn't have control access
Dashboard	980	Updates and exports fail in batch
Dashboard	982	The scope of a metric may not be recorded properly
RCM triggers	984	the RCM object trigger should prevent from creating a new version if the module is not set up for PFM
Module synchronization	985	while synchronizing a view the justification of the columns is ignored
Convert rows to Objects	986	Running "RMF/Convert rows to Objects" with the option "Delete table after conversion" enabled, generates a runtime error in DOORS 9.2.0.4
Project Configuration	988	The Project Configuration may crash if it is run in a row just after upgrading the project
PFM	989	if PFM is ON, when displaying a traceability column, you may get a RCM message "ERROR ASSERTION FAILED : the configuration (...) is not available in descriptor (...) at ..."
PFM / Insert DXL column	990	the 'insert DXL column' command shall take into account the limit to 32 columns only in a view
Manage Objects	991	a DXL error "Canvas not realized" may occur on DOORS 9.2.0.2 (and over) if PFM is used
WEXP	992	when exporting a document with a PFM filter, WEXP records in a custom property of the generated MS Word document the name of the selected PFM configuration (this property is named "PFM Configuration" and it is created if needed)
Exchange	993	deleted objects cannot be moved during an import (ERROR: Cannot move object xxx after/below object YYY)
PFM / PFM information window	994	editing or creating a parameter with the 'PFM information' window makes the window of the current formal module stay on top of all the other DOORS windows
RCM	995	add a new status "to be reviewed" in the lifecycle of a Change Request
RCM	996	add a new group of users allowed to create Change Requests (but not to review and manage them)

PFM	997	the PFM setup should be able to convert the DXL columns created by the traceability wizard
WEXP	998	When using MS Word 2000, isolated OLE are magnified by 33%
PFM	999	the value of a contextual attribute of type 'text' may be altered
PFM	1000	Ability to add user-defined commands into the PFM browser (in the 'tools' menu)
Project upgrade	1001	error while upgrading a project from TREK 5.2 (or earlier) to RMF: "invalid default value 'RMF Objects' for attribute 'RCM Control Mode'"
WEXP	1002	when exporting using the current filter some objects may not be exported (the one that would not have been visible if the filter of the view had been used instead)
Startup	1003	RPE fails to open a DOORS session if RMF is installed
Configure module	1004	cannot modify the list of the rules to be checked
Explorer	1005	DXL error when selecting a view in the "Model" tab (on the left) and then running the command "Edit item in Profile"
Configure module	1006	1) grey out the RCM option "Repair out-link modification of an object in reference" if "Change control mode"="not formal authorized" (also implemented in the dialog box 'configure project') 2) close the dialog box if the user closes the module 3) enable to open the dialog box even if the module is not in exclusive edit mode, but disable the dialog box if so
WEXP	1007	WEXP does not export the text "A = B<<5 and C>>2" correctly, it renders "A = B 2" except if the usercallout "usercallout_executePostProcessModAttrs" is modified to return false (in the file wexp/include/usercallouts.inc)
WEXP	1009	WEXP: the text exported using object templates may be truncated (if it contains line breaks and the option "Treat line breaks in Object Text as new paragraphs" is not equal to "Always")
RCM suspect links	1013	display the text of the child objects of the current and proposed targets
WEXP	1014	the references to module attributes <<attr>> located in headers or footers are not correctly processed if the option "Do not strip unsupported RTF markers before copy/paste" is ON and the option "Treat line breaks in Object Text as new para" is not equal to "Always"
WEXP	1015	MS Word may hang when processing an inserted view in RTF format if the option "Do not strip unsupported RTF

		markers before copy/paste" is enabled
Silent uninstallation	1016	some files are not removed while uninstalling RMF in silent mode (among which the uninstall EXE file and the files named 'irdrmfao.dxl' located in the HOME directory of DOORS)
RCM close trigger	1018	if a controlled module is closed while editing in place an attribute, the modification is saved without confirmation message and the module is closed
RCM	1020	when creating a new object version, the previous one should not remain selected

### **Known limitations**

- Explorer
  - The explorer is not able to manage a RMF project with too many items inside. The display of projects with more than 500 items will take too many time and memory resources. To cope with this limitation in the context of big projects, you should use the Scope concept to limit the size of the Explorer database, according to the part of the project you want to display.
  - The object graph view may need a large amount of memory and time resources to be processed. You should use this feature only after having filtered the visible items to limit the number of objects to process.
  - The explorer is not dynamically refreshed when database modifications (item creation, deletion, renaming, moving) are done outside of the tool.
- Exchange
  - The XML format processing used by Exchange is not very efficient because of the use of DXL script programming and not compiled code. The import operation may take a lot of time and memory resources to process the dataset. For example, the processing of 5000 objects to import will take several hours.
- Word generation
  - Because of the architecture of the DOORS to Word generation operation, that needs an instance of Word to process the data, the export of large amount of data may take a lot of time and resources. The amount of resources used is also dependent of the used formats. In case of memory or time limit, you should process incrementally by exporting several smaller dataset.
- RCM
  - You should avoid putting under RCM control too many modules within the same operation, because this operation may use a lot of

memory. 10 modules should be a maximum, except if you can test before that you may supersede this limit without any trouble.

- RCM is not able to control table elements (tables, rows, columns or cells), even in “All objects” mode. The only supported case is when a table is a part of a composite RMF object.
  - RCM is not able to control heading objects, even in “All objects” mode or if embedding of RMF objects is allowed.
- PFM
    - When creating an insulated package version, the inner traceability links (as opposed to the links with other packages) may be recorded in the same link modules (instead of a copy located in the new workspace) if those link modules are not located in the hierarchy of the package version
    - Merge
      - Contextual attributes are not handled
      - Child objects (of composite objects) are not handled