

»» InfoTech-Cs

Reverse Data Modelling



Reverse Data Modelling

The goal of the presentation is to show the main steps in the Reverse Data Modelling.

The first step is the selection of the Natural modules to be analyzed (library, applications, part of the application) , the presentation ends with publishing the final Data Model.

- Step 1. (RestNat)
 - Isolate Part of Application (Call Graph - Related objects)
- Step 2. (RestDDM)
 - Reverse Relations Between DDMs
- Step 3. (RestDM)
 - Publishing Data Model in Browser (I.E.)

Step 1. - Part of Application (Call Graph-Related objects)

The screenshot shows the 'InfoNat [S.I.A.E.] - Call graph tool' interface. The main window displays a call graph for 'mufomenu'. The 'Application' pane on the left shows a tree of objects, with 'MUFOMENU' selected. The 'Call graph: mufomenu' pane shows a hierarchical view of the call graph, with 'MUFOCM01' selected. The 'Source: MUFOCM01.NSP' pane shows the source code for 'MUFOCM01'. A callout box labeled 'Isolated part of application' points to the 'MUFOCM01' branch in the call graph.

Annotations in the image include:

- 1. Select (pointing to MUFOMENU in the Application pane)
- 2. Click Call Graph (pointing to the Call Graph icon in the toolbar)
- 3. Select (pointing to MUFOCM01 in the Call graph pane)
- 4. Click Hide (pointing to the Hide icon in the toolbar)

From complete Call Graph (MUFOMENU) the branch (MUFOCM01) was isolated for further processing. Other branches were excluded (Hide) ex. MUFOCTII from Call Graph

Step 2. - Reverse Relations Between DDMs

The screenshot shows the RestDDM application interface. On the left is a navigation tree with 'System' selected. The main window is titled 'DDM Relations: MATRIX' and contains a table of DDM relationships. A callout box highlights a specific relation between 'DRM-DRMI' and 'MOVN-DRMI' in the 'MUFOCTI8' object. A 'Select' button is visible in the bottom right of the main window.

DDM	Rel. DDM	Object			CALLNAT			Field	Related Field
		Library	Object	Type	Library	Object	Type		
ANAG-DRMI	1	mufo	MUFOCTI8	NSP			SUPP-PROD-COD	PROD-COD	
DRM-DRMI	3	mufo	MUFOCTI9	NSP			SUPP-PROD-COD	PROD-COD	
ANAG-DRMI	1	mufo	MUFOCTIA	NSP			SUPP-PROD-COD	PROD-COD	
MOVN-DRMI	1	mufo	MUFOCTI2	NSP			SUPP-DRM-COD	MOVN-DRM-COD	
MOVN-DRMI	1	mufo	MUFOCTI8	NSP			SUPP-DRM-COD	MOVN-DRM-COD	
MOVN-DRMI	1	mufo	MUFOCTI18	NSN			SUPP-DRM-COD	MOVN-DRM-COD	
MOVN-DRMI	1	mufo	MUFOSNV1	NSN			SUPP-DRM-COD	MOVN-DRM-COD	
MOVN-DRMI	1	mufo	MUFOSR15	NSN			SUPP-DRM-COD	MOVN-DRM-COD	
OPE-MCDEM	1	mufo	MUFOCTI7	NSP			SUPP-OPER-COD	AB-CDNEW-101	
OPE-MCDEM	1	mufo	MUFOCTIE	NSP			SUPP-OPER-COD	AB-CDNEW-101	

Note: RestDDM outputs are designed for Internet Explorer

Results of RestDDM analysis of the isolated objects are shown. For data modelling purposes the DDM relations („reverse relations“) are listed.

Example of the relation between DRM-DRMI and MOVN-DRMI in program MUFOCTI8 as found by the tool.

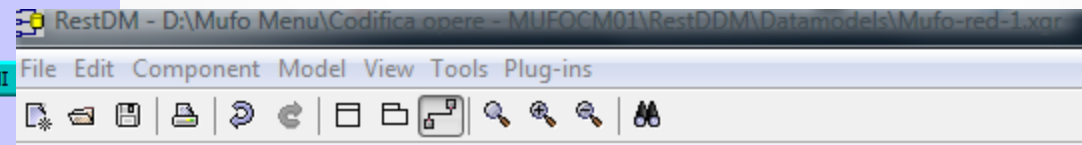
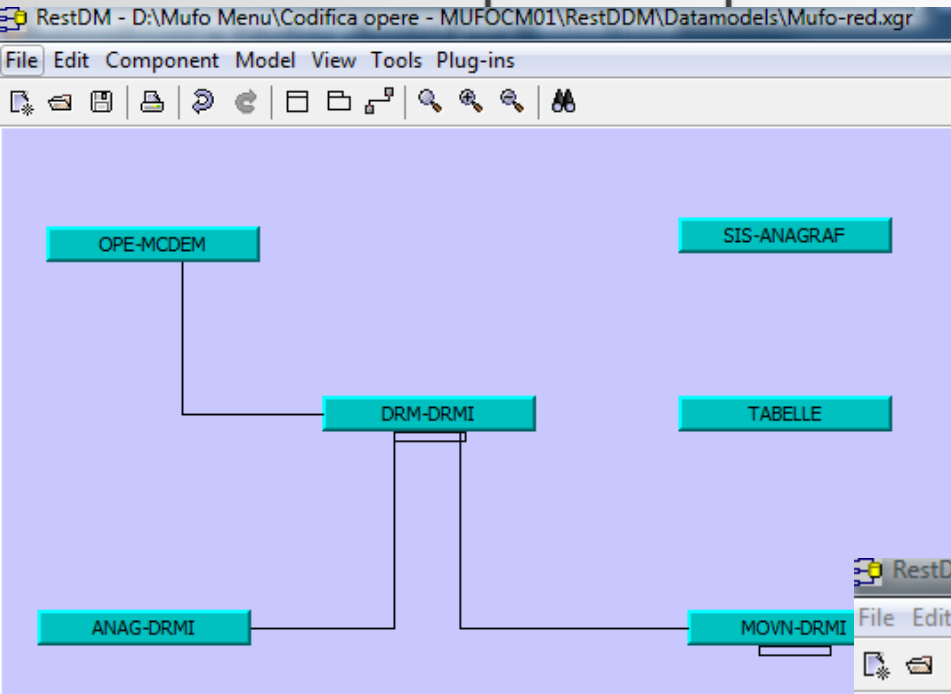
The screenshot shows a program listing with several lines of code. A callout box labeled 'Relation' points to the line: '2170MOVE SUPP-DRM-COD (2160) TO C-DRM'. Another callout box labeled 'Relation source' points to the line: '2270FIND MOVN-DRMI MOVN-DRM-COD = C-DRM'. The program listing includes various control statements like MOVE, IF, CALLNAT, and FIND.

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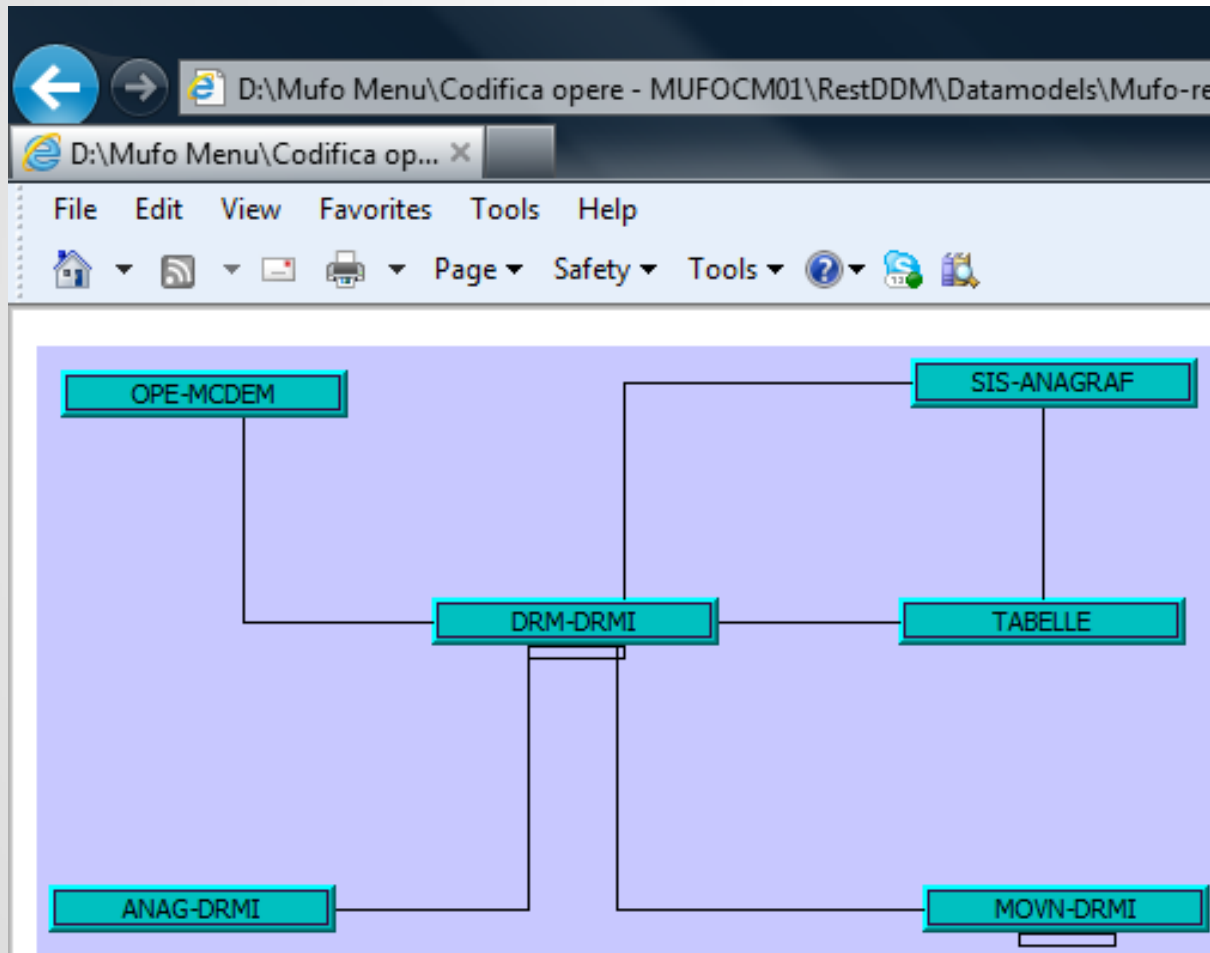
2110*
2120MOVE ALL H'F0' TO M-ISN
2130*
2140IF N-ISN-OPER NE 0
2150MOVE N-ISN-OPER TO N-ISN-REC
2160GET DRM-DRMI N-ISN-REC
2170MOVE SUPP-DRM-COD (2160) TO C-DRM
2180MOVE SUPP-OPER-TITL (2160) TO T-TITL
2190MOVE SUPP-OPER-COD (2160) TO C-OPE
2200*
2210MOVE T-FAPR TO
2220MOVE ' 000' TO
2230* -- ANNO 2000
2240CALLNAT 'SIAETE29' D-SEM-BLOC3 D-SEM-BLOC5 (N5)
2250CALLNAT 'SIAETE30' D-AUTR6 D-AUTR8 (N8)
2260*
2270FIND MOVN-DRMI MOVN-DRM-COD = C-DRM
2280 WHERE MOVN-VEND-STS NE 'S'
2290 AND MOVN-AUTR-STS NE 'S'
2300*
2310 IF MOVN-IDEN LE '01' DO
2320 ACCEPT MOVN-SEMS-RENDS GE D-SEM-BLOC5
2330 MOVE MOVN-VEND-QTY (2270) TO Q-QTY (N7)
    
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Step 3. - Import Data Model and Editing



Step 3. Edit Data Model and publish it in Browser (I.E.)



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For a more technical presentation of this topic regarding Work Flow:

<http://www.infotech.cz/presentation/DM-v3.pdf>

To download the free version of our tools RestNat, RestDDM and RestDM for Data Modelling trial (unlimited number of Natural objects can be analyzed):

<http://www.infotech-cs.eu> section Downloads (Data Modelling Trial)



Thank you for your attention

