

# RestDDM

- ▶ Data Mining in Natural/ADABAS

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# RestDDM

**RestDDM** data mining tool that provides a control of the Data usage in **Natural/Adabas Systems**.

**RestDDm** is source code parser that assists in **IT Modernization and Change Management** activities.

Few clicks on your **browser** and you will have the answers to questions regarding location of:

- Adabas Access statements (Find, Store, Update etc.)

- Field Access statements

- Relation between DDM's (mapped in programs)

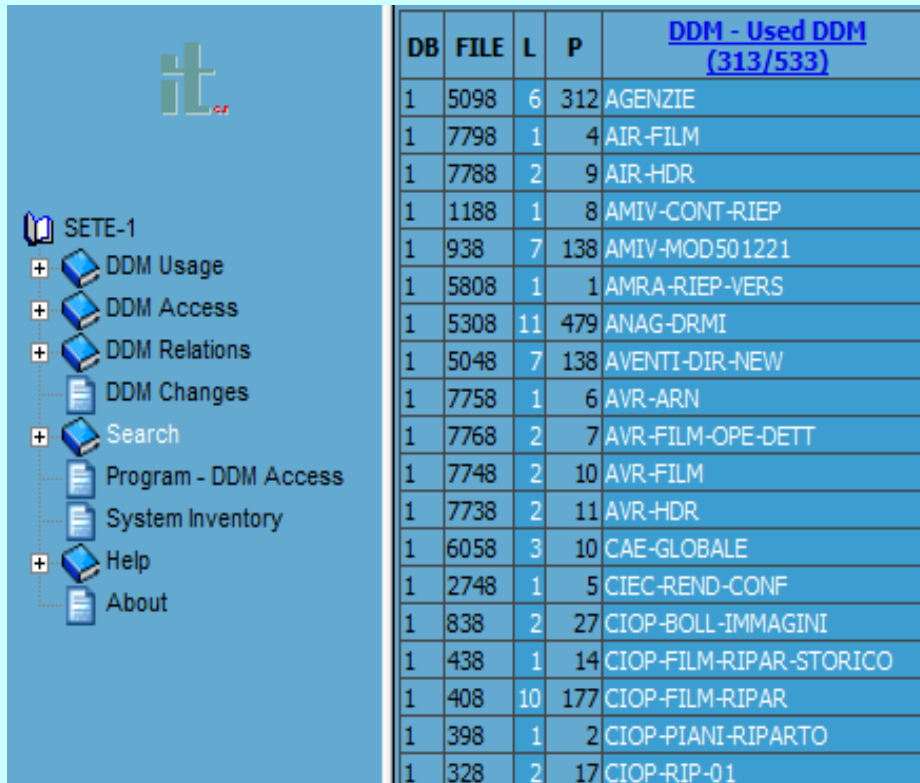
- File (Field) Value changes (Update or Store) in System(Library, Application)

- ....

**RestDDM** is a flexible tool, you can analyze whole System (all Libraries), selected Libraries (steplibs) or part of the Library (Application – list of modules).

**RestDDM** outputs can be also used for building the Data Model (Entity Relation diagram).

# RestDDM Results – Main Menu



DB	FILE	L	P	DDM - Used DDM (313/533)
1	5098	6	312	AGENZIE
1	7798	1	4	AIR-FILM
1	7788	2	9	AIR-HDR
1	1188	1	8	AMIV-CONT-RIEP
1	938	7	138	AMIV-MOD501221
1	5808	1	1	AMRA-RIEP-VERS
1	5308	11	479	ANAG-DRMI
1	5048	7	138	AVENTI-DIR-NEW
1	7758	1	6	AVR-ARN
1	7768	2	7	AVR-FILM-OPE-DETT
1	7748	2	10	AVR-FILM
1	7738	2	11	AVR-HDR
1	6058	3	10	CAE-GLOBALE
1	2748	1	5	CIEC-REND-CONF
1	838	2	27	CIOP-BOLL-IMMAGINI
1	438	1	14	CIOP-FILM-RIPAR-STORICO
1	408	10	177	CIOP-FILM-RIPAR
1	398	1	2	CIOP-PIANI-RIPARTO
1	328	2	17	CIOP-RIP-01

RestDDM is a web-browser (IE, Firefox) based application for retrieving the Adabas meta data from Natural (Cobol) programs.

The main features of RestDDM can be controlled via comprehensive control tree menu, which is positioned in the left part of the application window.

Right part shows the listing of DDMs (313) accessed in analyzed programs. Total number of analyzed DDMs is 533.

# DDM Usage - System - Used DDM

1 System

2 Select (L)ibrary column

DB	FILE	L	P	DDM - Used DDM (313/533)
1	5098	6	312	AGENZIE
1	7798	1	4	AIR-FILM
1	7788	2	9	AIR-HDR
1	1188	1	8	AMIV-CONT-RIEP
1	938	7	138	AMIV-MOD501221
1	5808	1	1	AMRA-RIEP-VERS
1	5308	11	479	ANAG-DRMI
1	5048	7	138	AVENTI-DIR-NEW
1	7758	1	6	AVR-ARN
				M-OPÉ-DETT
				M
				R
1	6058	3	10	CAE-GLOBALE
1	2748	1	5	CIEC-REND-CONF
1	838	2	27	CIOP-BOLL-IMMAGINI
1	438	1	14	CIOP-FILM-RIPAR-STORICO
1	408	10	177	CIOP-FILM-RIPAR
1	398	1	2	CIOP-PIANI-RIPARTO
1	328	2	17	CIOP-RIP-01
1	1438	2	38	CIOP-RIP-CLASSIFICHE
1	7778	4	6	CIOP-RIP-UTIL

ANAG-DRMI(DDM) is accessed in 11 Libraries, 479 Modules.

List of Libraries (11) and modules (MUFOCT9) where ANAG-DRMI is accessed (2 FINDS).

1 Library

2 Program

SOURCE	LOC	SUD	F	G	R	H	S	SUD
MUFOCT9.NSP	2	0	2	0	0	0	0	0

- + MUFO (366 OBJ)
- + MUF5BT (3 OBJ)
- + MUFSTP (1 OBJ)
- + OLAFTP (1 OBJ)
- + STADAWEB (8 OBJ)
- + SISINT (1 OBJ)
- + SYSTEM (7 OBJ)
- + TAB-NEW (5 OBJ)
- + VIDEOFLM (81 OBJ)

PREVIOUS	NEXT	NO FILTER	UNLOAD	SAVE	LOAD to RestNat
Total: 1	0	mufoct9.nsp	2004-10-15 22:16:32	CATGEN	
4620*					
4630 FIND FIRST ANAG-DRMI PROD-COD EQ SUPP-PROD-COD(4520					
4640 COMPRESS T-PROD PROD-RSOC(4630) PROD-COGN(4630)					

# DDM Usage – System – Used DDM – Field Usage

DB	FILE	L	P	DDM - Used DDM (313/533)	Library, Program, View, Find, Get, Read, Hist., Store, Update
1	5098	6	312	AGENZIE	
1	7798	1	4	AIR-FILM	
1	7788	2	9	AIR-HDR	
1	1188	1	8	AMIV-CONT	
1	938	7	138	AMIV-MOD5	
1	5808	1	1	AMRA-RIEP-VERS	
1	5308	1	479	ANAG-DRMI	
1	5048	1	138	AVR-ATTI-DIR-NEW	
1	7758	1	6	AVR-ARN	
1	77	1	1	AVR-PE-DETT	
1	7738	2	11	AVR-HDR	
1	6058	3	10	CAE-GLOBALE	
1	2748	1	5	CIEC-REND-CONF	
1	838	2	27	CIOP-BOLL-IMMAGINI	
1	438	1	14	CIOP-FILM-RIPAR-STORICO	
1	408	10	177	CIOP-FILM-RIPAR	
1	398	1	2	CIOP-PIANI-RIPARTO	
1	328	2	17	CIOP-RIP-01	
1	1438	2	38	CIOP-RIP-CLASSIFICHE	
1	7778	4	6	CIOP-RIP-UTIL	
1	378	5	150	CIOP-UTILIZZA	
1	818	2	40	CLASF-DRMI	
1	1658	2	30	CNAG-ABBN	
1	1648	3	95	CNAG-ANAG	
1	1598	2	234	CNAG-COMB-ANA	
1	1728	1	30	CNAG-CONT-SGNZ	
1	1628	13	610	CNAG-FILM-ANA	
1	1718	1	5	CNAG-FILM-ATTI	
1	1798	1	27	CNAG-FILM-CIRC	

L	P	V	F	G	R	H	S	U	T	D	L	Name
0	0	0	0	0	0	0	0	0			1	PROD-STAT
2	4	1	0	0	0	0	0	0	G		1	PROD-CODS
9	356	5	315	0	13	8	4	12		D	2	PROD-COD
5	116	3	59	0	15	0	4	10		D	2	PROD-PGEN-COD
5	112	3	36	0	12	0	4	9		D	2	PROD-OPER-COD
5	147	3	46	0	13	0	4	9		D	2	PROD-COLL-COD
6	152	5	88	0	20	18	4	9		D	2	PROD-VIDG-COD
2	4	1	0	0	0	0	0	0	G		1	PROD-ANAG
9	230	4	0	0	0	0	0	4	9		2	PROD-COGN
9	231	4	0	0	0	0	0	4	9		2	PROD-NOME
11	349	5	0	0	0	0	0	4	11		2	PROD-RSOC
4	100	5	38	0	76	1	4	11		D	2	PROD-ANAG-COMP
4	20	2	0	0	0	0	0	2	6		2	PROD-TIPO
2	13	2	1	0	0	0	0	1	2		2	PROD-NAZN
3	10	1	0	0	0	0	0	3	7	P	1	PROD-INDR
3	16	2	0	0	0	0	0	0	3		2	PROD-INDR-TIPO
4	28	2	0	0	0	0	0	0	4		2	PROD-INDR-VIA
4	27	2	0	0	0	0	0	0	4		2	PROD-INDR-LOCL
4	26	2	0	0	0	0	0	0	4		2	PROD-INDR-CAP
4	24	2	0	0	0	0	0	0	4		2	PROD-INDR-PROV
2	3	1	0	0	0	0	0	0	0		2	PROD-INDR-NAZN
4	15	2	0	0	0	0	0	0	4		2	PROD-TELF-PREF
4	16	2	0	0	0	0	0	0	4		2	PROD-TELF-NUM
3	14	2	0	0	0	0	0	0	4		2	PROD-TELEX

Field PROD-COD (ANAG-DRMI) accessed in 9 Libraries and 356 Modules

Select Library

11 libs

- PROD-COGN (9 Lib / 225 Obj / 398 LOC)
- DEIRIPT (2 Obj)
- DGCNIS (1 Obj)
- MUFOCTI9.NSP (1 Lib / 1 Obj / 1 LOC)
- MUFO (187 Obj)
- OLAFT (1 Obj)
- SIADAWEB (7 Obj)
- SISINT (1 Obj)
- SYSTEM (3 Obj)
- TAB-NEW (5 Obj)
- VIDEOFLM (18 Obj)

2

PREVIOUS	NEXT	NO FILTER	UNLOAD	SAVE	LOAD to RestNat
Total: 1	0	mufoct9.nsp	2004-10-15 22:16:32	CATGEN	
4630	FIND	FIRST	ANAG-DRMI	PROD-COD	EQ SUPP-PROD-COD(4520)
4640	COMPRESS	T-PROD	PROD-RSOC(4630)	PROD-COGN(4630)	
4650		PROD-NOME(4630)	INTO	T-PROD-COM	
4660	MOVE	T-PROD-COM	TO	T-PROD	

# DDM Usage - System - Used DDM - Field Access-Read

DB	FILE	L	P	DDM - Used DDM (313/533)
1	5098	6	312	AGENZIE
1	7798	1	4	AIR-FILM
1	7788	2	9	AIR-HDR
1	1188	1	8	AMIV-CONT-RIEP
1	938	7	1	AMIV-MOD501221
1	5808	1	1	AMRA-RIEP-VERS
1	5308	11	479	ANAG-DRMI
1	5048	7	138	AVENTI-DIR-NEW
1	7758	1	6	AVR-ARN
1	7768	2	7	AVR-FILM-OPE-DETT
1	7748	2	10	AVR-FILM
1	7738	2	11	AVR-HDR
1	6058	3	10	CAE-GLOBALE
1	2748	1	5	CIEC-REND-CONF
1	838	2	27	CIOP-BOLL-IMMAGINI

ANAG-DRMI (138 FIELDS) Usage													
L	P	V	F	G	R	H	S	U	T	D	L	Name	
0	0	0	0	0	0	0	0	0			1	PROD-STAT	
2	4	1	0	0	0	0	0	0	G		1	PROD-CODS	
5	315	0	13	8	4	12				D	2	PROD-COD	
5	116	3	59	15	0	4	10			D	2	PROD-PGEN-COD	
5	112	2	36	0	12	0	4	9		D	2	PROD-OPER-COD	
										9	D	2	PROD-COLL-COD
										9	D	2	PROD-VIDG-COD
									0	G	1	PROD-ANAG	
9	230	4	0	0	0	0	4	9			2	PROD-COGN	
9	231	4	0	0	0	0	4	9			2	PROD-NOME	
11	349	5	0	0	0	0	4	11			2	PROD-RSOC	
4	100	5	38	0	76	1	4	11		D	2	PROD-ANAG-COMP	
4	20	2	0	0	0	0	2	6			2	PROD-TIPO	
2	13	2	1	0	0	0	1	2			2	PROD-NAZN	

Field **PROD-COD** is referenced in 13 Read statements.

1  
2  
Select (R)ead column

**ANAG-DRMI (479 objects in 11 libs)**

- PROD-COD (9 LIB / 352 OBJ / 13 LOC)
- MUFO (13 OBJ)
 

SOURCE	LOC	SUD	F	G	R	S	D	U	H
IMATE.NSP	1	0	0	0	1	0	0	0	0
MARCHIO1.NSP	1	0	0	0	1	0	0	0	0
MUFOIBE1.NSP	1	0	0	0	1	0	0	0	0
MUFOPTG2.NSP	1	0	0	0	1	0	0	0	0
MUFOQBG1.NSP	1	0	0	0	1	0	0	0	0
MUFOQBS1.NSP	1	0	0	0	1	0	0	0	0
MUFOSBS2.NSP	1	0	0	0	1	0	0	0	0
MUFOSBS8.NSP	1	0	0	0	1	0	0	0	0
MUFOSTSX.NSP	1	0	0	0	1	0	0	0	0
MUFOTTA.NSP	1	0	0	0	1	0	0	0	0
MUFOZBG2.NSP	1	0	0	0	1	0	0	0	0
MUFOZBG5.NSP	1	0	0	0	1	0	0	0	0
MUFOZBS3.NSP	1	0	0	0	1	0	0	0	0

PREVIOUS	NEXT	NO FILTER	UNLOAD	SAVE	LOAD to RestM
Total: 1	0	marchio1.nsp	2011-05-18 13:09:12		

```

1850RESET R-ELAB
1860READ ANAG-DRMI-PROD BY PROD-COD /* = O-PRO
1870 IF (O-PROD-C NE ' ' AND O-PROD-C NE PRO
    
```

# DDM Usage - Library - Used DDM

**Used DDM**

**Library**

- CENS
- CLOPTP
- CNAG
- CNFTBT
- CNFTTP
- CONTRAT
- DEMINDIR
- DEMIRIPT
- DEMIRIPT3
- DEMIRIPTP
- DGCSNIS
- DOR**
- DOR-INT
- DOR-OLD
- DORBATCH
- DORMUSIC
- ELEZIONI
- IPITP
- IPITP

DB	FILE	L	P	DOR - Used DDM (63/533)
1	5098	1	59	AGENZIE
1	5048	1	51	AVENTI-DIR-NEW
1	1618	1	16	CNAG-LGSP
1	568	1	140	CODCAE
1	5128	1	2	COMPAGNIE
1	6048	1	1	CONTAB-ESCLUSIONI
1	5118	1	53	DGCS-ANTICIPI-RTI
1	6918	1	3	DGCS-ANTICIPI
1	6888	1	1	DGCS-DATI-GEN
1	6878	1	4	DGCS-DATI-SEZ
1	6898	1	3	DGCS-DETT-ANTIC
1	6898	1	11	DGCS-MOVIMENTI
1	6898	1	1	DGCS-RIEP-ESCSOT
1	1938	1	1	DGCS-RIEP-MATU
1	6798	1	1	DOEM-DIFF-M4213
1	7178	1	167	DOOP-ANAG-ST
1	578	1	26	DOOP-FORMAT
1	7158	1	65	DOOP-NOTE-AADD
1	7128	1	393	DOOP-OPERE-ANAG
1	7138	1	307	DOOP-OPERE-TITL
1	7168	1	136	DOOP-RIPARTO-ST
1	7148	1	308	DOOP-RIPARTO
1	7188	1	66	DOOP-TITL-ST
1	7198	1	71	DOPE-COMPAGNIE
1	6818	1	78	DOPE-COND-PART

In library DOR selected DDM  
 DGCS-RIEP-ESCSOT is accessed in  
 program UPD-GEN on line 0020.

**DGCS-RIEP-ESCSOT (1 objects in 1 libs)**

- DOR (1 OBJ)

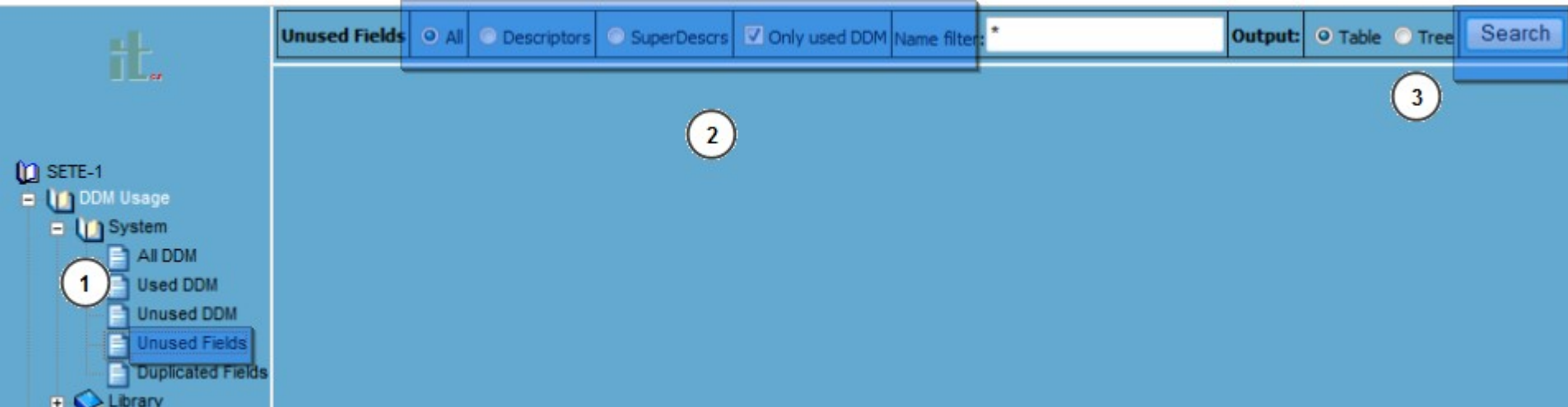
SOURCE	LOC	SUD	F	G	R	H	S	UD
UPD-GEN.NSP	2	0	0	0	2	0	0	0

PREVIOUS    NEXT    NO FILTER    UNLOAD    SAVE    LOAD to RestNat

Total: 1    0    upd-gen.nsp    2004-10-15 22:20:28    CATGEN

```
0010FORMAT (2) PS=64 LS=80
0020READ DGCS-RIEP-ESCSOT BY RIES-AADD-PRGR-SOTT-SEZN
0030 ACCEPT RIES-SEZN-CODI = '3' AND RIES-ESCL-CODI GT ' '
```

# DDM Usage – System – Unused Fields

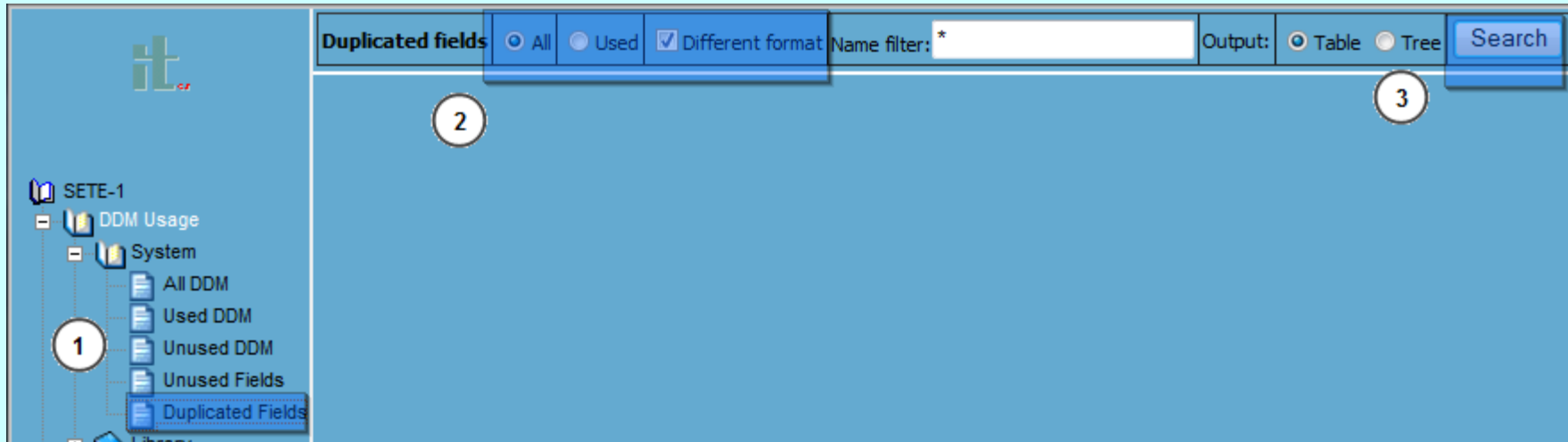


Unused Fields AMRA-C-ENTE-CONTR, AMRA-C-TRIB-RA , ...  
in DDM AMRA-RIEP-VERS

T	D	L	Name	F	Len	DB	Description
<b>DDM</b>							<b>DB/FILE</b>
<b>AMRA-RIEP-VERS ( 5 )</b>							<b>1 / 5808</b>
D	2		AMRA-C-ENTE-CONTR	N	3	AC	
D	2		AMRA-C-TRIB-RA	N	4	AP	
D	2		AMRA-N-QUIET-RA	A	15	AT	
D	1		AMRA-N-NUM-CAB-RA	A	16	BB	
D	1		AMRA-D-CONT-770	N	4	BE	
<b>ANAG-DRMI ( 1 )</b>							<b>1 / 5308</b>
D	2		PROD-ANAG-ID	N	10	IA	



# DDM Usage – System – Duplicated Fields



Fields having the same field Name and with different format. Field TELEFONO in DDM's:

Agenzie-E (TELEFONO – N8)

Cess-Client (TELEFONO – N9)

....

TIPO (in 2 DDMs)				
AGENZIE-E	1	5248	A	1
ENC-PREMI	1	5428	A	4
TELEFONO (in 4 DDMs)				
AGENZIE-E	1	5248	N	8
CESS-CLIENTI	1	5618	N	9
CLIENTI	1	5238	N	9
SEGR-COM	1	6198	N	3

# DDM Access – System – Access type (ALL)

DDM AVENTI-DIR-NEW is accessed 114 times (Find, Get, Read ..)

The screenshot displays the IT system interface. On the left, a navigation tree shows 'DDM Access' selected, with 'System' highlighted. The main window is divided into two panes. The left pane shows a table of DDM Access statistics, and the right pane shows a detailed view of the 'AVENTI-DIR-NEW' DDM.

DDM Access										
DDM	F	G	R	S	D	U	H	SUD	Count	Reduce
AGENZIE	214	17	44	18	3	8	1	29	305	13
AIR-FILM	0	0	2	1	0	0	0	1	3	1
AIR-HDR	3	0	3	1	0	3	1	4	11	4
AMIV-CONT-RIEP	1	0	0	0	0	0	1	0	2	2
AMIV-MOD501221	76	4	39	0	0	5	13	5	137	17
AMRA-RIEP-VERS	0	0	1	0	0	0	0	0	1	1
ANAG-DRMI	736	67	168	15	12	54	36	61	1088	28
AVENTI-DIR-NEW	97	0	2	8	3	4	0	15	114	5
AVR-ARN	4	0	0	1	0	1	0	2	6	3
AVR-FILM-OPE-DETT	0	1	4	1	0	1	0	2	7	1
AVR-FILM	3	0	5	1	0	2	0	3	11	5
AVR-HDR	5	0	2	1	0	1	1	2	10	3
CAE-GLOBALE	3	0	6	1	0	0	0	1	10	2
CIEC-REND-CONF	2	3	2	1	1	5	0	7	14	2

DDM: AVENTI-DIR				
Access	Descriptor	Library	Object	Statement
DELETE		DOR	DOOPATC1.NSP	DELETE(0890)
DELETE		DOR	DOOPATC4.NSP	DELETE(1530)
DELETE		DOR	DOOPATC5.NSP	DELETE(0640)
FIND	AG-NRCAE-04	DOR-INT	DORMP120.NSP	FIND AVENTI-DIR-NEW WITH AG-NRCAE-04
FIND	AG-NRCAE-04	DOR-OL	DV228.NSP	FIND AVENTI-DIR-NEW WITH AG-NRCAE-04
FIND	CODIOPE	DGCNIS	DGCNITEF.NSP	FIND AVENTI-DIR-NEW-VIEW WITH CODIOPE
FIND	CODIOPE	DGCNIS	DGCNRB3X.NSP	FIND AVENTI-DIR-NEW-VIEW CODIOPE = L-P
FIND	CODIOPE	DGCNIS	DGCNRB3Y.NSP	FIND AVENTI-DIR-NEW-VIEW CODIOPE = L-P
FIND	CODIOPE	DGCNIS	DOCNATE8.NSP	FIND AVENTI-DIR-NEW-VIEW WITH CODIOPE
FIND	CODIOPE	DGCNIS	DOCNATI2.NSP	FIND AVENTI-DIR-NEW-VIEW WITH CODIOPE
FIND	CODIOPE	DGCNIS	DOCNRB6K.NSP	FIND AVENTI-DIR-NEW WITH CODIOPE = L-C
FIND	CODIOPE	DGCNIS	DOCNRBGG.NSP	FIND AVENTI-DIR-NEW WITH CODIOPE = AD
FIND	CODIOPE	DGCNIS		FIND AVENTI-DIR-NEW WITH CODIOPE = AD

Module DGCNRB3Y.NSP on line 4110 is using descriptor CODIOPE to access selected DDM.

```

PREVIOUS  NEXT  FILTER  UNLOAD  SAVE  LOAD to RestNat
Total: 0 0 dgcnrb3y.nsp
4080FIND FIRST OPERE-NEW-VIEW CODICE EQ L-PREC-COD-OPE
4090MOVE TITOLO TO L-TITOLO
4100RESET L-PERC
4110FIND AVENTI-DIR-NEW-VIEW CODIOPE EQ L-PREC-COD-OPE
4120 WHERE N-POS EQ L-PREC-COD-AVD
4130 IF NO RECORD FOUND DO
4140 MOVE '**** NOME ERRATO ****' TO L-NOME-4
4150 ESCAPE
4160 DOEND
4170 MOVE NOME(4110) TO L-NOME-4
4180

```

# DDM Access – System – Access type (ALL)

Selected DDM AVENTI-DIR-NE is accessed in 5 different modes (listed in the middle): Find AG-NR-CAE-04, Find CODIOPE, Find N-POS, Read CODIOPE, Read NOME.

74 modules contain statement Find AVENTI-DIR-NEW with CODIOPE

DDM Access										
DDM	F	G	R	S	D	U	H	SUD	Count	Reduce
AGENZIE	214	17	44	18	3	8	1	29	305	13
AIR-FILM	0	0	2	1	0	0	0	1	3	1
AIR-HDR	3	0	3	1	0	3	1	4	11	4
AMIV-CONT-RJEP	1	0	0	0	0	0	1	0	2	2
AMIV-MOD501221	76	4	39	0	0	5	13	5	137	17
AMRA-RJEP-VERS	0	0	1	0	0	0	0	0	1	1
ANAG-DRMI	736	67	168	15	12	54	36	81	1088	28
AVENTI-DIR-NEW	97	0	2	8	3	4	0	15	114	5
AVR-ARN	4	0	0	1	0	1	0	2	6	3
AVR-FILM-OPE-DETT	0	1	4	1	0	1	0	2	7	1
AVR-FILM	3	0	5	1	0	2	0	3	11	5

DDM: AVENTI-DIR-NEW		
Access	Descriptor	Objects
FIND	AG-NRCAE-04	2
FIND	CODIOPE	74
FIND	N-POS	12
READ	CODIOPE	1
READ	NOME	1

DDM: AVENTI-DIR-NEW, Access: FIND,		
Library	Object	Statement
DGCNIS	DOCNAB02.NSP	FIND AVENTI-DIR-NEW-VIEW WITH N-POS = G-
DGCNIS	FILIP.NSP	FIND AVENTI-DIR-NEW WITH N-POS = 127635
DOR-INT	DORMP100.NSP	FIND AVENTI-DIR-NEW WITH N-POS = +POS
DOR-OLD	DOR14909.NSP	FIND AVENTI-DIR-NEW WITH N-POS = ceISN1
DOR-OLD	DOR1495B.NSP	FIND AVENTI-DIR-NEW WITH N-POS = ceISN1
DOR-OLD	DOR302.NSP	FIND AVENTI-DIR-NEW WITH N-POS = ceISN1
DOR-OLD	DORMP100.NSP	FIND AVENTI-DIR-NEW WITH N-POS = +AUTOR
DOR-OLD	DOR-S40.NSP	FIND AVENTI-DIR-NEW WITH N-POS = COD-AU
DOR-OLD	MOV231.NSP	FIND AVENTI-DIR-NEW WITH N-POS = +AUTOR
DOR-OLD	PERM12B.NSP	FIND AVENTI-DIR-NEW WITH N-POS > 99994 A
DOR-OLD	PERM18.NSP	FIND AVENTI-DIR-NEW WITH N-POS = ceISN1
DOR-OLD	PERM18A.NSP	FIND AVENTI-DIR-NEW WITH N-POS = ceISN1

# DDM Access - Library – Access type (Find, Get, Read,..)

The screenshot shows the 'DDM Access' window. On the left, a tree view shows the navigation path: SIAE > Data Definition Module > DDM Access > Library. A red box with a '1' and a green arrow points to 'Library'. A red box with a '2' and a green arrow points to 'DGCNIS' in the library list. A red box with a '3' and a green arrow points to the 'Find' column in the 'DDM Access - Library: DGCNIS' table. A red box with a '4' and a green arrow points to the 'DGCNITEF.NSP' object in the 'DDM: AVENTI-DIR-NEW [FIND], Library: DGCNIS' table. A red box with the text 'Select' and a green arrow points to the 'Find' statement in the table.

DDM	F	G	R	S	U	H	D	Count
AGENZIE	102	7	15	5	1	0	0	131
ANAG-DRMI	1	0	0	0	0	0	0	1
AVENTI-DIR-NEW	21	0	0	0	0	0	0	21
CODCAE	15	0	0	0	0	0	0	15
COMPAGNIE	5	1	1	0	0	0	0	7

DDM AVENTI-DIR-NEW is accessed by 21 Find statements in selected library DGCNIS

```

PREVIOUS NEXT FILTER UNLOAD SAVE LOAD to RestNat
-----
Total: 0 0 dgcnite
0820 MOVE CODICE TO L-C-OPER-APPO
0830*
0840* -----
0850*
0860 PERFORM RICERCA-AA-DD
0870END-READ
0880FETCH 'DGCNITEF'
0890END-SUBROUTINE
0900
0910* SUBROUTINE RICERCA AVENTI DIRITO
0920
0930DEFINE SUBROUTINE RICERCA-AA-DD
0940*
0950FIND AVENTI-DIR-NEW-VIEW WITH CODIOPE = L-C-OPER-APPO
0960 AND N-POS = G-C-AADD-SELZ
0970*
0980 IF *NUMBER NE 0
    
```

# DDM Access – System – Access type (Find, Get,Read,..)

Selected DDM ANAG-DRMI is Updated in 54 modules (listed bellow)

DDM Access											
DDM	F	G	R	S	D	U	H	SUD	Count	Reduce	
<a href="#">AGENZIE</a>	214	17	44	18	3	8	1	29	305	13	
<a href="#">AIR-FILM</a>	0	0							3	1	
<a href="#">AIR-HDR</a>	3	0							11	4	
<a href="#">AMIV-CONT-RIEP</a>	1	0							2	2	
<a href="#">AMIV-MOD501221</a>	76	4	39	0	0	5	13	5	137	17	
<a href="#">AMRA-RIEP-VERS</a>	0	0	1	0	0	0	0	0	1	1	
<b>ANAG-DRMI</b>	<b>736</b>	<b>67</b>	<b>168</b>	<b>15</b>	<b>12</b>	<b>54</b>	<b>36</b>	<b>81</b>	<b>1088</b>	<b>28</b>	
<a href="#">AVENTI-DIR-NEW</a>	97	0	2	8	3	4	0	15	114	5	
<a href="#">AVR-ARN</a>	4	0	0	1	0	1	0	2	6	3	
<a href="#">AVR-FILM-OPE-DETT</a>	0	1	4	1	0	1	0	2	7	1	

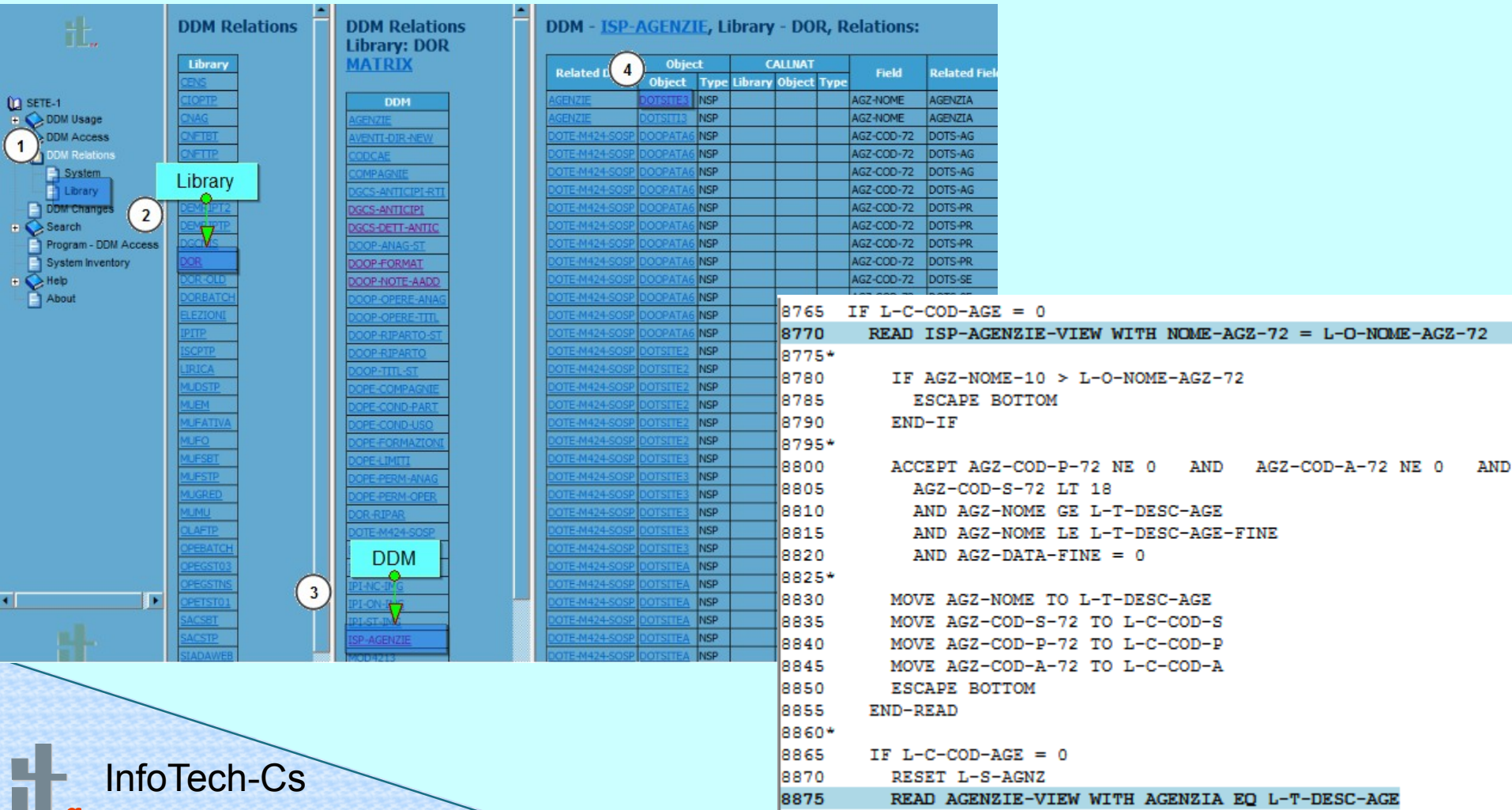
Descriptor	Library	Object	Statement
	MUFO	<a href="#">MUFOFNI2.NSN</a>	UPDATE
	MUFO	<a href="#">MUFOFNV2.NSN</a>	UPDATE
	MUFO	<a href="#">MUFOSNE3.NSN</a>	UPDATE(0640)
			UPDATE(1130)
	MUFO	<a href="#">MUFOSNE8.NSN</a>	UPDATE(0660)
			UPDATE(1210)
	MUFO	<a href="#">AGGPROD.NSP</a>	UPDATE SAME
	MUFO	<a href="#">MARCHIO.NSP</a>	UPDATE (2150) MARC-PROD-STOR
	MUFO	<a href="#">MARCHIO5.NSP</a>	UPDATE (1420) MARC-ASSC(INDIC
			UPDATE (1550) MARC-ASSC(INDIC
			UPDATE (1790) MARC-ASSC(INDIC

Select (U)update column

1

# DDM Relations – Library

In selected Library (DOR) there are relations between ISP-AGENZIE and AGENZIE as determined by code analyzer in source code DOTSITE3 on lines 8830, 8875.



**DDM Relations Library: DOR MATRIX**

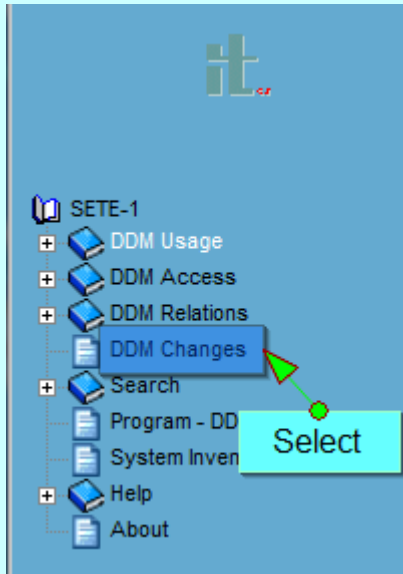
Library	DDM
CENS	
CLOPTP	
ONAG	
ONFBET	
ONFTTP	
DEM-INT2	
DEM-INTP	
DDCVIS	
DOR	
DOR-OLD	
DORBATCH	
ELEZIONI	
IPITP	
ISOPTP	
DOOP-RIPARTO	
DOOP-INTL-ST	
DOPE-COMPAGNIE	
DOPE-COND-PART	
DOPE-COND-USQ	
DOPE-FORMAZIONI	
DOPE-LIMITI	
DOPE-PERM-ANAG	
DOPE-PERM-OPER	
DOR-RIPAR	
DOPE-M424-SOSP	
IPI-NC-ING	
IPI-ON-ING	
IPI-ST-ING	
ISP-AGENZIE	
MOD-IT3	

**DDM - ISP-AGENZIE, Library - DOR, Relations:**

Related Object	Object	Type	CALLNAT	Field	Related Field
	Object	Type	Library	Object	Type
AGENZIE	DOTSITE3	NSP		AGZ-NOME	AGENZIA
AGENZIE	DOTSITE3	NSP		AGZ-NOME	AGENZIA
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-AG
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-AG
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-AG
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-AG
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-PR
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-PR
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-PR
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-PR
DOPE-M424-SOSP	DOOPATA6	NSP		AGZ-COD-72	DOTS-SE
DOPE-M424-SOSP	DOOPATA6	NSP			
DOPE-M424-SOSP	DOOPATA6	NSP			
DOPE-M424-SOSP	DOOPATA6	NSP			
DOPE-M424-SOSP	DOOPATA6	NSP			
DOPE-M424-SOSP	DOTSITE2	NSP			
DOPE-M424-SOSP	DOTSITE2	NSP			
DOPE-M424-SOSP	DOTSITE2	NSP			
DOPE-M424-SOSP	DOTSITE2	NSP			
DOPE-M424-SOSP	DOTSITE3	NSP			
DOPE-M424-SOSP	DOTSITE3	NSP			
DOPE-M424-SOSP	DOTSITE3	NSP			
DOPE-M424-SOSP	DOTSITE3	NSP			
DOPE-M424-SOSP	DOTSITE3	NSP			
DOPE-M424-SOSP	DOTSITE4	NSP			
DOPE-M424-SOSP	DOTSITE4	NSP			
DOPE-M424-SOSP	DOTSITE4	NSP			
DOPE-M424-SOSP	DOTSITE4	NSP			
DOPE-M424-SOSP	DOTSITE4	NSP			

```
8765 IF L-C-COD-AGE = 0
8770 READ ISP-AGENZIE-VIEW WITH NOME-AGZ-72 = L-O-NOME-AGZ-72
8775*
8780 IF AGZ-NOME-10 > L-O-NOME-AGZ-72
8785 ESCAPE BOTTOM
8790 END-IF
8795*
8800 ACCEPT AGZ-COD-P-72 NE 0 AND AGZ-COD-A-72 NE 0 AND
8805 AGZ-COD-S-72 LT 18
8810 AND AGZ-NOME GE L-T-DESC-AGE
8815 AND AGZ-NOME LE L-T-DESC-AGE-FINE
8820 AND AGZ-DATA-FINE = 0
8825*
8830 MOVE AGZ-NOME TO L-T-DESC-AGE
8835 MOVE AGZ-COD-S-72 TO L-C-COD-S
8840 MOVE AGZ-COD-P-72 TO L-C-COD-P
8845 MOVE AGZ-COD-A-72 TO L-C-COD-A
8850 ESCAPE BOTTOM
8855 END-READ
8860*
8865 IF L-C-COD-AGE = 0
8870 RESET L-S-AGNZ
8875 READ AGENZIE-VIEW WITH AGENZIA EQ L-T-DESC-AGE
```

# DDM Changes



DDM

Date	new	change	del.	Total
18.2. - 25.2.12	0	3	0	534
11.2. - 18.2.12	0	2	0	534
4.2. - 11.2.12	1	1	0	534
28.1. - 4.2.12	0	2	0	533
21.1. - 28.1.12	0	3	0	533
19.11. - 21.1.12	0	15	0	533
12.11. - 19.11.11	0	1	0	533
22.10. - 29.10.11	0	1	0	533
15.10. - 22.10.11	1	0	1	533
8.10. - 15.10.11	0	1	0	533
1.10. - 8.10.11	0	1	0	533
24.9. - 1.10.11	0	5	0	533
17.9. - 24.9.11	0	2	0	533
3.9. - 10.9.11	0	1	0	533

In the period 18.2 - 25.2.

3 DDMs (AVR-ARN, ..) were changed

Changed Objects  
DDM  
(18.2. - 25.2.12):

Object	Type	Date	User
AVR-ARN	DDM	12	SPINELLI
CONTRATTI-SCHEDI		12	PORCU
ISCP-PROD-IMP	D	23.2.12	SPINELLI

PREVIOUS	NEXT	NO FILTER	MAXIMIZE	UNLOAD	SAVE	LOAD to Rest	PREVIOUS	NEXT	NO FILTER	UNLOAD	SAVE	LOAD to RestNat
Total: 1	0	AVR-ARN.NSD		2012-02-23 10:20:00		SPINELLI	Total: 1	0	AVR-ARN.NSD		2009-02-20 10:38:26	EL
0810	1	REX-EXP-BUFFER (A29--BCN-)					0810	1	REX-EXP-BUFFER (A29--BCN-)			
0820	1	CIS-NET-PACKAGE-ID (N9--BDND) /* The package ID for a					0820	1	CIS-NET-PACKAGE-ID (N9--BDN-) /* The package ID for			
0830*		The package ID for a Cis-Net-X					0830*		The package ID for a Cis-Net-A			

A callout box labeled 'Change' points to the object name '(N9--BDND)' in both rows of the table.

# Search – Field (All types, Group, Periodic, Multiple)

The screenshot shows the software interface for searching fields. On the left, a navigation tree under 'SETE-1' includes 'DDM Usage', 'DDM Access', 'DDM Relations', 'DDM Changes', and 'Search'. The 'Search' folder is expanded, and 'Field' is selected (marked with a circled '1'). The main search bar at the top has 'Search Field Type' with radio buttons for 'All' (selected), 'G', 'P', and 'M', and a checked box for 'Only used DDM'. The 'Field filter' is set to '\*PRAG\*' (marked with a circled '3'). The 'Output' is set to 'Table' (marked with a circled '4'). A 'Search' button is on the right. A circled '2' is also present in the main area.

FIELDS		DDM		
TOTAL	FOUND	TOTAL	UNUSED	FOUND WITH FIELD 'All'
18893	37	533	220	16

L	O	T	D	L	Name	F	Len	DB
<b>DDM</b>								
<b>CONTZ_CONST (9 All/9 used)</b>								
1	13		1		CONST_SEPRAG_CODIC	N	7	AC
1	8		1		CONST_LOCLE_SEPRAG_CODIC	N	7	AL
1	8		1		CONST_ORGAN_SEPRAG_CODIC	N	7	AN
1	7		1		CONST_RAPPR_SEPRAG_CODIC	N	7	AP
1	7		1		CONST_COORG_SEPRAG_CODIC			AR
1	7		1		CONST_COORG_RAPPR_SEPRAG_CODIC			AT
1	6		2		CONST_VERBZ_SEPRAG_CODIC	N	7	AW
1	7		1		CONST_RIFER_SEPRAG_CONST	N	7	BB
1	7		1		CONST_RIFER_SEPRAG_VERBA	N	7	BE
<b>CONTZ_CONST_MOVIM (1 All/1 used)</b>								
1	4		1		CONST_MOVIM_SEPRAG_CODIC	N	7	AC
<b>CONTZ_LOCLE (2 All/2 used)</b>								
1	27		1		LOCLE_SEPRAG_CODIC	N	7	AB

Result



# Search - DDM

The screenshot shows the DDM search interface. On the left is a navigation tree with 'Search' selected. The main window has a search bar with 'P\*' and a 'Search' button. Below the search bar are two tables. The first table, 'DDM - Used DDM (3/533)', lists search results. The second table, 'PERMESSI (9 FIELDS)', shows the details of the selected entity. Below the tables is an 'Entity: PERMESSI' summary and a 'VIEW' table.

**Search Bar:** Search DDM  Only used DDM DDM filter: P\* Search

**Navigation Tree:** SETE-1, DDM Usage, DDM Access, DDM Relations, DDM Changes, Search (selected), Field, DDM, Program, Program - DDM Access, System Inventory, Help, About.

**DDM - Used DDM (3/533)**

DB	FILE	L	P	DDM - Used DDM (3/533)
1	5138	3	30	PERMESSI
1	7108	4	6	PERS-COMPLENZE
1	7078	2	5	PRES-TABELLE

**PERMESSI (9 FIELDS)**

L	P	V	F	G	R	H	S	U	T	D	L	Name	F	Len	DE
0	0	0	0	0	0	0	0	0	G		1	A0-FIELD			A0
1	11	1	10	0	0	0	1	0		D	2	NUM-ISTRUZ	A	10	AA
0	0	0	0	0	0	0	0	0			2	NUM-PROG	N	2	AB
3	19	2	20	0	1	0	2	0		D	2	COD-PERM	A	5	AC
3	27	2	15	0	0	0	3	3		D	2	COD-OPERA	A	7	AD
2	13	1	0	0	0	0	2	3			2	COD-CONDIZ	A	3	AE
2	14	1	0	0	0	0	3	3	M		2	NOTE	A	60	AF
1	9	1	0	0	0	0	2	0			1	TITOLO	A	40	CA
1	4	1	0	0	0	0	2	0			1	AUTORE	A	20	CB

**Entity: PERMESSI**

ALIAS	PERMESSI
DB/FILE	1/5138

**VIEW**

L	P	VIEW
2	26	PERMESSI
2	4	PERMESSI-VIEW

# Program - DDM Access



2

## Measuring Volume:

Library	NSP	NSN	NSS	NSM	NSC	NSL	NSG	NSA	Other	Total
CENS	144	19	0	2	0	30	13	15	0	223
CIOPTP	599	49	32	238	3	63	6	6	1	997
CNAG	1189	11	7	484	0	33	5	1	0	1730
CNFTBT	40	0	0	0	0	0	0	0	0	40
CNFTTP	130	1	0	59	0	4	0	2	0	196
CONTRAT	65	0	0	3	0	0	0	0	0	68
DDM	0	0	0	0	0	0	0	0	533	533
DEMINDIR	25	1	0	0	0	6	1	1	2	36
DEM RIPBT	1586	13	170	220	17	255	5	2	0	2268
DEM RIPT2	138	2	1	90	0	55	4	3	14	307
						0	1	0	0	55
						3	143	9	19	1348
						7	579	6	14	2786

## Volume CIOPTP:

Type	Objects
Programs	599
Subprograms	49
Subroutines	32
Maps	
Copycodes	
Local data	63
Global data	6
Parameter data	6
DDM	0
Others	1
<b>Total</b>	<b>997</b>

Select

- SETE-1
- DDM Usage
- DDM Access
- DDM Relations
- DDM Changes
- Search
- Program - DDM Access**
- System Inventory
- Help
- About

1

## Library CIOPTP, Programs

Programs	User	Date	Usage
APE-NS00.NSP	CATGEN	15.10.2004	
APE-NS10.NSP	CATGEN	15.10.2004	DDM
APE-NS20.NSP	CATGEN	15.10.2004	DDM
APE-NS30.NSP	CATGEN	15.10.2004	DDM
APE-NS40.NSP	CATGEN	15.10.2004	DDM
APE-NS50.NSP	CATGEN	15.10.2004	DDM
APE-NS60.NSP	CATGEN	15.10.2004	DDM
APE-NS70.NSP	CATGEN	15.10.2004	DDM
APE-NS80.NSP	CATGEN	15.10.2004	DDM
APE-NS90.NSP	CATGEN	15.10.2004	DDM
BIOPATEG.NSP	CATGEN	15.10.2004	DDM
BIOPBT27.NSP	CATGEN	15.10.2004	DDM
BRSEZION.NSP	RUSSO	24.8.1999	DDM

Select

APE-NS50 (2 DDM)

- SIS-ANAGRAF (17 FIELDS)
- TABELLE (5 FIELDS)
  - SD-AA-AB...
  - AB-VALE...
  - AC-DECO1-20
  - AE-INVAL-20**
  - AA-NRTAB-20

Select

Select

PREVIOUS	NEXT	NO FILTER	UNLOAD
Total: 1		0	
1320	MOVE BN-PERCI-N TO PERCI-8 (NOE)		
1330	FIND TABELLE WITH AE-INVAL-20		
1340	WHERE AA-NRTAB-20 EQ 7		
1350	IF NO DO		

# System Inventory

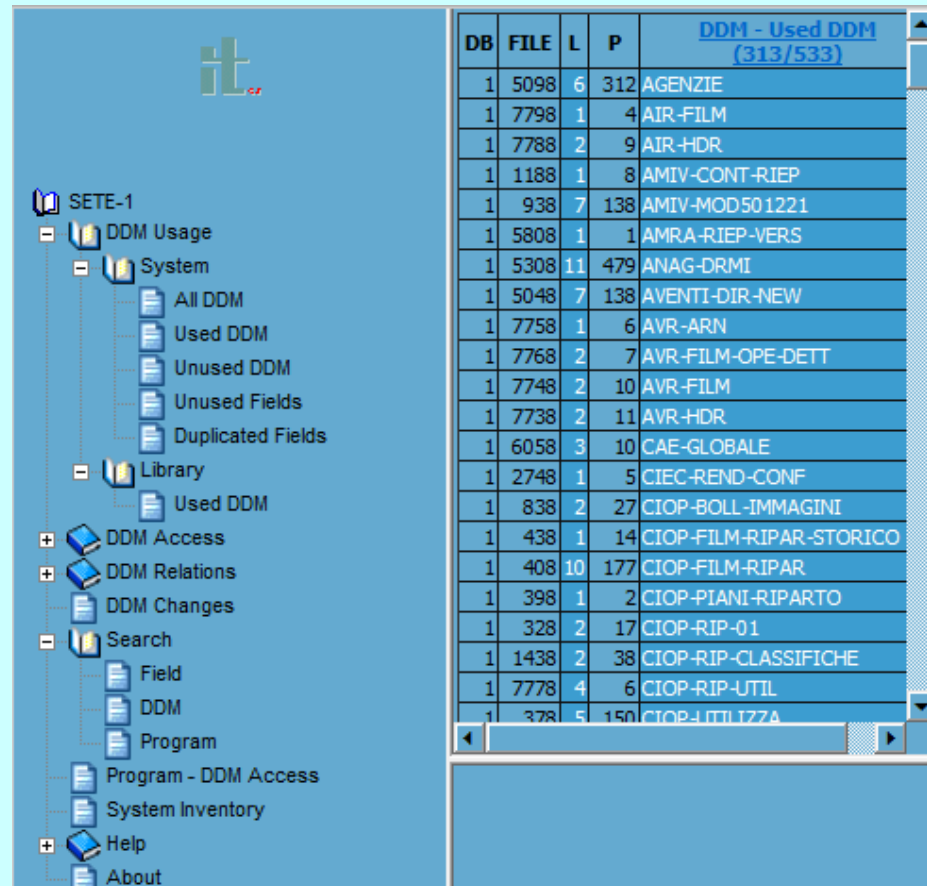
The screenshot displays a software interface for system inventory. On the left, a tree view shows the hierarchy: SETE-1 > System Inventory. A red arrow points to the 'System Inventory' item, which is highlighted in a blue box. A yellow callout box with the text 'Select' is positioned next to the arrow. The main area shows a list of system components under the heading 'SETE-1' and '20110926'. The components include CENS, CIOPTP, CNAG, CNFTBT, CNFTTP, CONTRAT, DEMINDIR, DEMRIPBT, DEMRIPT2, DEMRIPT3, DEMRIPTP, DGCNIS, DOR-INT, DOR-OLD, DORBATCH, and DORMUSIC. On the right, a table titled 'Measuring Volume:' provides a detailed breakdown of the volume for each component, categorized by library type (NSP, NSN, NSS, NSM, NSC, NSL, NSG, NSA, Other) and a Total column.

Library	NSP	NSN	NSS	NSM	NSC	NSL	NSG	NSA	Other	Total
<a href="#">CENS</a>	144	19	0	2	0	30	13	15	0	223
<a href="#">CIOPTP</a>	599	49	32	238	3	63	6	6	1	997
<a href="#">CNAG</a>	1189	11	7	484	0	33	5	1	0	1730
<a href="#">CNFTBT</a>	40	0	0	0	0	0	0	0	0	40
<a href="#">CNFTTP</a>	130	1	0	59	0	4	0	2	0	196
<a href="#">CONTRAT</a>	65	0	0	3	0	0	0	0	0	68
<a href="#">DDM</a>	0	0	0	0	0	0	0	0	533	533
<a href="#">DEMINDIR</a>	25	1	0	0	0	6	1	1	2	36
<a href="#">DEMRIPBT</a>	1586	13	170	220	17	255	5	2	0	2268
<a href="#">DEMRIPT2</a>	138	2	1	90	0	55	4	3	14	307
<a href="#">DEMRIPT3</a>	40	0	0	14	0	1	0	0	0	55
<a href="#">DEMRIPTP</a>	696	102	27	338	13	143	9	19	1	1348
<a href="#">DGCNIS</a>	1806	51	28	282	17	579	6	14	3	2786
<a href="#">DOR-INT</a>	21	0	0	9	0	0	0	0	0	30
<a href="#">DOR-OLD</a>	394	12	4	136	3	95	3	3	0	650

# RestDDM Results – Updates

To update periodically RestDDM results just rerun RestDDM,  
for more info RestDDM settings [Click here](#).

RestDDM runs can be scheduled (daily, weekly etc) and  
synchronize with NCD files downloads (mainframe).



The screenshot displays the RestDDM application interface. On the left is a tree view showing the application structure under 'SETE-1'. On the right is a data table titled 'DDM - Used DDM (313/533)'. The table has columns for DB, FILE, L, P, and a description. The tree view includes folders like 'DDM Usage', 'System', 'Library', 'DDM Access', 'DDM Relations', 'DDM Changes', 'Search', and 'Program'.

DB	FILE	L	P	DDM - Used DDM (313/533)
1	5098	6	312	AGENZIE
1	7798	1	4	AIR-FILM
1	7788	2	9	AIR-HDR
1	1188	1	8	AMIV-CONT-RIEP
1	938	7	138	AMIV-MOD50 1221
1	5808	1	1	AMRA-RIEP-VERS
1	5308	11	479	ANAG-DRMI
1	5048	7	138	AVENTI-DIR-NEW
1	7758	1	6	AVR-ARN
1	7768	2	7	AVR-FILM-OPE-DETT
1	7748	2	10	AVR-FILM
1	7738	2	11	AVR-HDR
1	6058	3	10	CAE-GLOBALE
1	2748	1	5	CIEC-REND-CONF
1	838	2	27	CIOP-BOLL-IMMAGINI
1	438	1	14	CIOP-FILM-RIPAR-STORICO
1	408	10	177	CIOP-FILM-RIPAR
1	398	1	2	CIOP-PIANI-RIPARTO
1	328	2	17	CIOP-RIP-01
1	1438	2	38	CIOP-RIP-CLASSIFICHE
1	7778	4	6	CIOP-RIP-UTIL
1	378	5	150	CIOP-UTIL 177A

# RestDDM Messages



Messages file are located in Xml folder in Output Directory.

RestDDM results are sensitive on correct System and Steplib settings.

Message Error file:

```
<?xml version="1.0" encoding="UTF-8" ?>
- <ERROR>
- <MSG STAMP="20120309095353">
  <![CDATA[ 0013 [CIOPTP\GS-QB16 .NSP:00081,0250] incorrect structure before / in END_FIND >>#0250
  ]]>
</MSG>
- <MSG STAMP="20120309095353">
  <![CDATA[ 0013 [CIOPTP\GS-QB16 .NSP:00083,0260] incorrect structure before / in END_SUBROUTINE >>#0260
  ]]>
</MSG>
- <MSG STAMP="20120309095817">
  <![CDATA[ 0013 [CNAG\FLA .NSP:00073,0160] unaccessible statement No.:0010 in LOOP >>#0160
  ]]>
</MSG>
- <MSG STAMP="20120309100224">
  <![CDATA[ 0013 [CNFTBT\GS-1 .NSP:00035,0050] incorrect structure before / in DOEND >>#0050
  ]]>
```

**Thank you for your attention**

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