



HORIZONT

XINFO – Programming Languages z/OS - Natural

Adabas - Natural

XINFO and Natural

NATURAL is the programming language for accessing ADABAS. The XINFO scanner delivers following information:

- Which programs are using which data objects?
- Which programs are using which includes?
- Which programs are calling other programs?
- Which programs are using which files?
- Which programs are accessing the database and how?
- ...

Natural - Displays

The screenshot shows the XINFO PC Client application window. The title bar reads "XINFO PC Client". The menu bar includes "File", "Home", "Table", "Netplan", "Barchart", "Chart", "Script", and "View". The toolbar contains icons for "Logon", "Logoff", "SQL", "Options", "Help", "About", "Home", and "Note". The "Workspace Tree" on the left lists several folders: "Source", "Assembler", "C", "COBOL", "Easytrieve", "Java", "Natural", "PL/I", "Distributed", and "XINFO". The "Natural" folder is expanded, showing sub-items: "General Info", "Includes", "Data Objects", "Calls", "File Access", "File Definitions", "DB Access", "External SQL", "Library Info", and "Variables". A red rounded rectangle highlights the "Natural" folder and its sub-items. A dark blue callout box with white text points to the "Natural" folder, containing the text "The displays for NATURAL". The status bar at the bottom indicates "Connected as: P391P, file: XX40T#25".

The displays for
NATURAL

Natural – General Info

The screenshot shows the 'Natural - General Info' dialog box. The dialog box is titled 'Natural - General Info' and has a close button (X) in the top right corner. It contains a list of settings for the 'Natural' system, each with a dropdown menu and a text input field. The settings are:

- System = []
- Main Program = []
- Main Lib = []
- Defined Files (Y/N) = []
- Uses Files (Y/N) = []
- Data objects (Y/N) = []
- Includes (Y/N) = []
- Uses CALL (Y/N) = []
- Uses DBs (Y/N) = []
- Uses Var Defs (Y/N) = []
- Uses Flex.SQL (Y/N) = []
- Source Lines Main = []
- Source Lines Total = []
- Comment Lines Main = []
- Comment Lines Total = []
- Last Update User = []
- Last Update Date = [] DD.MM.YYYY
- Last Update Time = [] HH:MM:SS
- Load Module = []

A callout box with a pointer to the dialog box contains the text: "Selection panel 'General Info'".

Natural – General Info

The screenshot shows the XINFO PC Client interface for 'Natural - General'. A callout bubble points to the 'Natural - General' tab, labeled 'Resulting "General Info"'. The main window displays a table of program details, and a 'Details' dialog box is open on the right, showing specific information for the selected program.

MainPrg	MainLib	FilDef	FilUs
<all>	<all>	<...>	<a...>
BTGL	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BTST	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BT1B-N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BT1PSTP	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
▶ BUSY101N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY102N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY103N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY104N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY110N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY111N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY112N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY113N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY114N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY115N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY116N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY117N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY118N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY119N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N
BUSY120N	P390A.XXR.TST40.DATA.NATSRC.D002	N	N

Name	Value
Main Program	BUSY101N
Main Lib	P390A.XXR.TST40.DATA.NATSRC.D002
Defined Files (Y/N)	N
Uses Files (Y/N)	N
Data objects (Y/N)	Y
Includes (Y/N)	Y
Uses CALL (Y/N)	Y
Uses DBs (Y/N)	Y
Uses Var Defs (Y/N)	Y
Uses Flex.SQL (Y/N)	N
Source Lines Main	103
Source Lines Total	249
Comment Lines Main	31
Comment Lines Total	79
Last Update User	
Last Update Date	
Last Update Time	
Load Module	BUSY101N
System	D002

Connected as: P391P, file: XX40T#14

Buttons: OK, Copy, Print..., Save As...

Natural - Includes

XINFO PC Client

File Home Table Netplan Barchart Chart Script View

Copy Select All Toggle Selection Edit Customize Use Default Use Custom Table Layout Group Show SQL

Workspace Tree

- Source
 - Assembler
 - C
 - COBOL
 - Easytrieve
 - Java
 - Natural
 - General
 - Includes**
 - Data Objects
 - Calls
 - File Access
 - File Definitions
 - DB Access
 - External SQL
 - Libraries
 - Variables
 - PL/I
 - XINFO
 - Universal

Natural - Includes

System	=	
Main Program	=	
Main Lib	=	
Source Member	=	
Source Lib	=	
Line	=	
Natural Line	=	
Include Member	=	*POOL*
Found (Y/N)	=	
Include Lib	=	
Nesting Level	=	
Load Module	=	

OK Actions Cancel

Search for Includes, e.g. all programs that are using include "*POOL*"

Connected as: P391P, file: XX40T#14

Natural - Includes

The screenshot shows the XINFO PC Client interface for 'Natural - Includes'. A callout box with the text 'These programs are using includes' points to the 'MainPrg' column of the table. The table lists various programs and their include relationships.

MainPrg	MainLib	Incl	Fnd	IncludeLib	NestingLvl	SrcMem	SourceLib	Line	NatLine	LoadMod	System
<all>	<all>	<all>	<	<all>	<all>	<all>	<all>	<..	<all>	<all>	<all>
BORAZO	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	BORAZO	P390A.XXR.TST40.DATA.NATSRC.D004	22	210	BORAZO	D004
KRE-ST7	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	KRE-ST7	P390A.XXR.TST40.DATA.NATSRC.D004	24	230	KRE-ST7	D004
WN1435	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN1435	P390A.XXR.TST40.DATA.NATSRC.D004	70	690	WN1435	D004
WN3675	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3675	P390A.XXR.TST40.DATA.NATSRC.D004	151	300	WN3675	D004
WN3681	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3681	P390A.XXR.TST40.DATA.NATSRC.D004	90	267	WN3681	D004
WN3685	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3685	P390A.XXR.TST40.DATA.NATSRC.D004	96	285	WN3685	D004
WN3691	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3691	P390A.XXR.TST40.DATA.NATSRC.D004	257	512	WN3691	D004
WN3692	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3692	P390A.XXR.TST40.DATA.NATSRC.D004	54	530	WN3692	D004
WN3693	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3693	P390A.XXR.TST40.DATA.NATSRC.D004	70	207	WN3693	D004
WN3694	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3694	P390A.XXR.TST40.DATA.NATSRC.D004	63	186	WN3694	D004
WN3699	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3699	P390A.XXR.TST40.DATA.NATSRC.D004	17	160	WN3699	D004
WN3721	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	WN3721	P390A.XXR.TST40.DATA.NATSRC.D004	32	310	WN3721	D004
W14493	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	W14493	P390A.XXR.TST40.DATA.NATSRC.D004	36	350	W14493	D004
W36020	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	W36020	P390A.XXR.TST40.DATA.NATSRC.D004	85	420	W36020	D004
W36150	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	W36150	P390A.XXR.TST40.DATA.NATSRC.D004	66	325	W36150	D004
W36151	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	W36151	P390A.XXR.TST40.DATA.NATSRC.D004	56	275	W36151	D004
W36157	P390A.XXR.TST40.DATA.NATSRC.D004	ZSPOOLC	N		1	W36157	P390A.XXR.TST40.DATA.NATSRC.D004	146	290	W36157	D004

Connected as: P391P, file: XX40T#14 Lines: 17

Natural – Data Objects

The screenshot shows the XINFO PC Client interface. The 'Natural - Data Objects' dialog box is open, displaying a list of fields for configuration. The 'Data Object' field is highlighted with a red box and contains the text 'CD*'. A callout bubble points to this field with the text: 'Search for data objects, e.g. all programs that are using other objects then "CD*"'.

Field	Value
System	=
Main Program	=
Main Lib	=
Source Member	=
Source Lib	=
Line	=
Natural Line	=
Data Object	<> CD*
Found (Y/N)	=
Scope (G/P/L)	=
Datobj Lib	=
Load Module	=

Natural – Data Objects

XINFO PC Client - Natural - Data Objects

File Home Table Netplan Barchart Chart Script View

Copy Select All Toggle Selection Edit Customize Use Default Use Custom Table Layout Group Statistics All Table Functions Show SQL Tools New Library Chart

Natural - Data Objects

MainPrg	MainLib	DataObj	Fnd	Scope	DatObjLib	SrcMem	SourceLib	Line	NatLine	LoadMod	System
<all>	<all>	<all>	<	<all>	<all>			<..>	<all>	<all>	<all>
ADINB21	P390A.XXR.TST40.DATA.NATSRC.D002	BTZMODA	N	L			.TST40.DATA.NATSRC.D002	80	395	ADINB21	D002
ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0G	N	G			.TST40.DATA.NATSRC.D002	16	150	ADIND01	D002
ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	ADIAD01	Y	P			.TST40.DATA.NATSRC.D002	17	160	ADIND01	D002
ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	ADILD01	Y	L	P390A.XXR.TST40.DATA.NATOBJ.D002	ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	18	170	ADIND01	D002
ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS1ABIT	N	L		ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	19	180	ADIND01	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0G	N	G		ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	17	160	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	ADIAD02	Y	P	P390A.XXR.TST40.DATA.NATOBJ.D002	ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	18	170	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	SYS1ADAB	N	L		ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	19	180	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	ADILD02	Y	L	P390A.XXR.TST40.DATA.NATOBJ.D002	ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	20	190	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	SYS1ABIT	N	L		ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	21	200	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	CADAETA	N	L		ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	22	210	ADIND02	D002
ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0G	N	G		ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	21	200	ADIND06	D002
ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	ADILD06	Y	L	P390A.XXR.TST40.DATA.NATOBJ.D002	ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	24	230	ADIND06	D002
ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	SA0164L	N	L		ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	25	240	ADIND06	D002
ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	SA3701A	N	L		ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	26	250	ADIND06	D002
ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0G	N	G		ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	20	190	ADINV01	D002
ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	ADIAD	N	P		ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	21	200	ADINV01	D002
ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0L	N	L		ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	22	210	ADINV01	D002
ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS7A	N	I		ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	23	220	ADINV01	D002

All programs that are not using objects "CD*"

Connected as: P391P, file: XX40T#14

Lines: 5000

Natural – Data Objects

And which objects are used?

1. Select "Group" ...

2. Select "Data Object" ...

Group	Column Header	Column Legend	Start	Length
<input type="checkbox"/>	MainPrg	Main Program		
<input type="checkbox"/>	MainLib	Main Lib		
<input checked="" type="checkbox"/>	DataObj	Data Object		
<input type="checkbox"/>	Fnd	Found (Y/N)		
<input type="checkbox"/>	Scope	Scope (G/P/L)		
<input type="checkbox"/>	DataObjLib	Datobj Lib		
<input type="checkbox"/>	SrcM	Source Member		
<input type="checkbox"/>	Source	Source Lib		
<input type="checkbox"/>	Line	Line		
<input type="checkbox"/>	NatLine	Natural Line		
<input type="checkbox"/>	LoadMod	Load Module		
<input type="checkbox"/>	System	System		

MainPrg	MainLib	DataObj	Line	NatLine	LoadMod	System
ADINB21	P390A.XXR.TST40.DATA.NATSRC.D002	BTZMO	80	395	ADINB21	D002
ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	DG	16	150	ADIND01	D002
ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	AD0	17	160	ADIND01	D002
ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	ADILDO	18	170	ADIND01	D002
ADIND01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS1AE	19	180	ADIND01	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0G	17	160	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	ADIAD0	18	170	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	SYS1AD	19	180	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	ADILDO	20	190	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	SYS1AE	21	200	ADIND02	D002
ADIND02	P390A.XXR.TST40.DATA.NATSRC.D002	CADAE	22	210	ADIND02	D002
ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0G	21	200	ADIND06	D002
ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	ADILDO	24	230	ADIND06	D002
ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	SA0164	25	240	ADIND06	D002
ADIND06	P390A.XXR.TST40.DATA.NATSRC.D002	SA3701	26	250	ADIND06	D002
ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0G	20	190	ADINV01	D002
ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	ADIAD	21	200	ADINV01	D002
ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS0L	22	210	ADINV01	D002
ADINV01	P390A.XXR.TST40.DATA.NATSRC.D002	SYS7A	23	220	ADINV01	D002

Connected as: P391P, file: XX40T#14

Lines: 5000

Natural – Data Objects

The screenshot shows the XINFO PC Client interface for Natural Data Objects. The main window displays a table with two columns: 'Count' and 'DataObj'. The table is sorted by the 'Count' column in descending order. A callout points to the 'Count' column header, stating 'Double click the column name to sort results by this value'. Another callout points to the 'DataObj' column, stating 'Used objects'. A third callout points to the 'Count' column, stating 'How often are the objects used?'. The table contains the following data:

Count	DataObj
127	ZMAPXXXA
96	ZMAPXXXL
94	Z\$ATTR-L
93	BSERSTDA
56	DSTD200R
55	SA0164L
49	LIED340R
46	BTZMODA
46	SYS0G
45	ADKD204R
44	BUSY000A
44	STW0190B
42	BUSY000L
42	SYS0L
41	SYSZA
41	DBALL-L1
39	BUSY004L
39	DBALL-LI
36	SYS1AA16
36	7ALLG11

At the bottom of the window, it shows 'Connected as: P391P, file: XX40T#14' and 'Lines: 1534'.

Natural – DB Access

The screenshot shows the XINFO PC Client interface. On the left is the Workspace Tree with folders like Source, Assembler, C, COBOL, Easytrieve, Java, Natural, PL/I, XINFO, and Universal. The Natural folder is expanded to show sub-items like General, Includes, Data Objects, Calls, File Access, File Definitions, DB Access (highlighted), External SQL, Libraries, and Variables. The main window has a menu bar (File, Home, Table, Netplan, Barchart, Chart, Script, View) and a toolbar. A dialog box titled 'Natural - DB Access' is open, containing a list of fields with dropdown menus and text boxes. The 'Access Type R/W/D/U' field is highlighted with a red box and contains the value 'w'. A callout bubble points to this field with the text 'Show which databases are accessed for write'. At the bottom of the dialog are 'OK', 'Actions', and 'Cancel' buttons. The status bar at the bottom of the client shows 'Connected as: P391P, file: XX40T#14'.

Field	Value
System	=
Main Program	=
Main Lib	=
Source Member	=
Source Lib	=
Line	=
Natural Line	=
View Name	=
DBD Name	=
Access Type R/W/D/U	w
Statement Name	=
Load Module	=

Natural – DB Access

The screenshot shows the XINFO PC Client interface for Natural - DB Access. The main window displays a table of database views. The table has columns for MainPrg, MainLib, View Name, DBD Name, R/W/D/U, StmtName, and LoadM. A red box highlights the R/W/D/U and StmtName columns. Three callouts provide additional context: 'Natural view ...' points to the View Name column, '... of this DDM' points to the DBD Name column, and 'Database may be accessed (e.g. for write) via various statements' points to the R/W/D/U column.

MainPrg	MainLib	View Name	DBD Name	R/W/D/U	StmtName	LoadM
<all>	<all>	<all>	<all>	<all>	<all>	<all>
W0594-N1	P390A.XXR.TST40.DATA.NATSRC.D003		POS_SBH	W	SQL-INSERT	44 440 W0594
W0594-PB	P390A.XXR.TST40.DATA.NATSRC.D003		VERTRAG	W	SQL-UPDATE	197 196 W0594
W0594-PB	P390A.XXR.TST40.DATA.NATSRC.D003		POSITION	W	SQL-UPDATE	227 226 W0594
W0594-PB	P390A.XXR.TST40.DATA.NATSRC.D003		POSITION	W	SQL-UPDATE	280 279 W0594
X03145	P390A.XXR.TST40.DATA.NATSRC.D003	D3-DKT-UPD	D3-DKT-ME	W	UPDATE	374 3730 X0314
X03146	P390A.XXR.TST40.DATA.NATSRC.D003	D3-DKT-UPD	D3-DKT	W	UPDATE	554 5530 X0314
X03148	P390A.XXR.TST40.DATA.NATSRC.D003	D3-DKT-UPD	D3-DKT	W	UPDATE	665 6640 X0314
X03155	P390A.XXR.TST40.DATA.NATSRC.D003	UMSATZ-JAHR-UPD	UMSATZ-JAHR	W	UPDATE	734 3665 X0315
X03158	P390A.XXR.TST40.DATA.NATSRC.D003	D3-KON-UPD	D3-KON	W	UPDATE	476 4750 X0315
X03178	P390A.XXR.TST40.DATA.NATSRC.D003	IP	INFO-POOL	W	STORE	62 610 X0317
BORAZO	P390A.XXR.TST40.DATA.NATSRC.D004	AZOD245U		W	UPDATE	103 1020 BORA
COPDSTD	P390A.XXR.TST40.DATA.NATSRC.D004	DSTD230U		W	STORE	18 170 COPD
JUPDM01	P390A.XXR.TST40.DATA.NATSRC.D004	MSTV205U		W	STORE	84 830 JUPDM
JUPDM01	P390A.XXR.TST40.DATA.NATSRC.D004	MSZV205U		W	STORE	107 1060 JUPDM
JUPDM01	P390A.XXR.TST40.DATA.NATSRC.D004	SOPV205U		W	STORE	132 1310 JUPDM
KRE-ST7	P390A.XXR.TST40.DATA.NATSRC.D004	DSHD200U		W	UPDATE	100 990 KRE-S
KRE-ST7	P390A.XXR.TST40.DATA.NATSRC.D004	DSHD200U		W	STORE	112 1110 KRE-S
KRE-ST7	P390A.XXR.TST40.DATA.NATSRC.D004	AKPD204U		W	STORE	132 1310 KRE-S
KRE-ST7	P390A.XXR.TST40.DATA.NATSRC.D004	AKPD204U		W	UPDATE	138 1370 KRE-S

Natural – DB Access

The screenshot displays the XINFO PC Client interface for Natural - DB Access. The main window shows a table with columns: MainPrg, MainLib, View Name, DBD Name, R/W/D/U, StmtName, SrcMem, and Source. The StmtName column is highlighted with a red box, and a callout box points to it with the text "Natural SQL statements (COMMIT, ROLLBACK, ...)". Another callout box points to the R/W/D/U column with the text "Natural DML statements (DELETE, HISTOGRAM, ...)".

MainPrg	MainLib	View Name	DBD Name	R/W/D/U	StmtName	SrcMem	Source
BFANL-N1	P390A.XXR.TST40.DATA.NATSRC.D003	POL	POLICE	W	SQL-UPDATE	DBPOL1CU	P390A.XXR.TST40.DATA.NATINC.D003 17 170 BFANL-N1 D003
BFANL-N1	P390A.XXR.TST40.DATA.NATSRC.D003		POL_POL	D	SQL-DELETE	DBPOL3CS	P390A.XXR.TST40.DATA.NATINC.D003 21 210 BFANL-N1 D003
BFANL-N1	P390A.XXR.TST40.DATA.NATSRC.D003		POL_POL	W	SQL-INSERT	DBPOL3CS	P390A.XXR.TST40.DATA.NATINC.D003 40 400 BFANL-N1 D003
BFANL-N1	P390A.XXR.TST40.DATA.NATSRC.D003		POLICE_SEQ	R	SQL-SELECT	DBSEQ-C1	P390A.XXR.TST40.DATA.NATINC.D003 23 230 BFANL-N1 D003
BFANL-N1	P390A.XXR.TST40.DATA.NATSRC.D003		POLICE_SEQ	W	SQL-INSERT	DBSEQ-C1	P390A.XXR.TST40.DATA.NATINC.D003 36 360 BFANL-N1 D003
BFANL-N1	P390A.XXR.TST40.DATA.NATSRC.D003		POLICE	W	SQL-INSERT	DBPOLACI	P390A.XXR.TST40.DATA.NATINC.D003 52 520 BFANL-N1 D003
BFANL-N1	P390A.XXR.TST40.DATA.NATSRC.D003		POLICE	R	SQL-SELECT	DBPOL3CE	P390A.XXR.TST40.DATA.NATINC.D003 53 530 BFANL-N1 D003
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP	WOP	R	READ	W032	P390A.XXR.TST40.DATA.NATSRC.D002 167 830 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP-ANTRAG	WOP-ANTRAG	R	FIND	W032	P390A.XXR.TST40.DATA.NATSRC.D002 174 865 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP-ANTRAG	WOP-ANTRAG	R	FIND	W032	P390A.XXR.TST40.DATA.NATSRC.D002 195 970 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP-ANTRAG	WOP-ANTRAG	W	STORE	W032	P390A.XXR.TST40.DATA.NATSRC.D002 210 1045 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP-ANTRAG	WOP-ANTRAG	R	READ	W032	P390A.XXR.TST40.DATA.NATSRC.D002 226 1125 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	ADR	ADRESSEN	R	FIND	W032	P390A.XXR.TST40.DATA.NATSRC.D002 257 1280 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP-ANTRAG	WOP-ANTRAG	W	UPDATE	W032	P390A.XXR.TST40.DATA.NATSRC.D002 259 1290 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP-VERTRAG	WOP-VERTRAG	R	FIND	W032	P390A.XXR.TST40.DATA.NATSRC.D002 283 1410 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP-VERTRAG	WOP-VERTRAG	W	STORE	W032	P390A.XXR.TST40.DATA.NATSRC.D002 312 1555 W032 D002
W032	P390A.XXR.TST40.DATA.NATSRC.D002	WOP-VERTRAG	WOP-VERTRAG	R	FIND	W032	P390A.XXR.TST40.DATA.NATSRC.D002 312 1555 W032 D002

Natural – External SQL

Are there any SQL statements which directly access the underlying database ("Flexible SQL") for deletion?

Field	Value
Main Program	=
Main Lib	=
Source Member	=
Source Lib	=
Line	=
Natural Line	=
Load Module	=
SubSys	=
Prefix	=
Object	=
Object Type	=
Action	DELETE
Column Name	=
Column Usage	=
System	=

Natural – External SQL

The screenshot shows the XINFO PC Client interface for Natural - External SQL. The main window displays a table of database objects. A callout bubble points to the 'Action' column, which contains 'DELETE' for all entries, indicating that delete is performed on these database tables.

MainPgm	Main Lib	Source	Source Lib	Line	NatLn	SubSys	Prefix	Object	Object Type	Action	Column	Column-Use	LoadMod
<all>	<all>	<all>	<all>	<..>	<a...>	<all>	<..>	<all>	<all>	<all>	<all>	<all>	<all>
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POLICE	P390A.XXR.TST40.DATA.NATINC.D003	206	206			PT_POLICE	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POLICE	P390A.XXR.TST40.DATA.NATINC.D003	210	210			DT_POLICE	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	VERTRAG	P390A.XXR.TST40.DATA.NATINC.D003	236	236			PT_VERTRAG	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	VERTRAG	P390A.XXR.TST40.DATA.NATINC.D003	240	240			DT_VERTRAG	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POSITION	P390A.XXR.TST40.DATA.NATINC.D003	106	106			PT_POSITION	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POSITION	P390A.XXR.TST40.DATA.NATINC.D003	110	110			DT_POSITION	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	RUECKVER	P390A.XXR.TST40.DATA.NATINC.D003	76	760			PT_RUECKVER	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	RUECKVER	P390A.XXR.TST40.DATA.NATINC.D003	80	800			DT_RUECKVER	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	VERSAND	P390A.XXR.TST40.DATA.NATINC.D003	100	100			PT_VERSAND	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	VERSAND	P390A.XXR.TST40.DATA.NATINC.D003	104	104			DT_VERSAND	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_CODP	P390A.XXR.TST40.DATA.NATINC.D003	40	400			PT_POL_CODP	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_CODP	P390A.XXR.TST40.DATA.NATINC.D003	44	440			DT_POL_CODP	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_KLA	P390A.XXR.TST40.DATA.NATINC.D003	43	43			PT_POL_KLA	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_KLA	P390A.XXR.TST40.DATA.NATINC.D003	47	47			DT_POL_KLA	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_POL	P390A.XXR.TST40.DATA.NATINC.D003	50	50			PT_POL_POL	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_POL	P390A.XXR.TST40.DATA.NATINC.D003	54	54			DT_POL_POL	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_DGR	P390A.XXR.TST40.DATA.NATINC.D003	40	400			PT_POL_DGR	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_DGR	P390A.XXR.TST40.DATA.NATINC.D003	44	440			DT_POL_DGR	TABLE/VIEW	DELETE			DBPOL-N3
DBPOL-N3	P390A.XXR.TST40.DATA.NATSRC.D003	POL_BVR	P390A.XXR.TST40.DATA.NATINC.D003	50	50			PT_POL_BVR	TABLE/VIEW	DELETE			DBPOL-N3

Connected as: P391P, file: XX40T#14

Lines: 61

Natural – External SQL

The screenshot displays the IBM Natural External SQL interface. The main window shows a list of lines for a Natural program. Line 0206 is highlighted in blue and contains the command `PROCESS SQL POLICE <<`. A callout box points to this line with the text: "Line command Browse shows which SQL statement is actually performed".

The interface includes a menu bar (File, Home, Table, Net), a workspace tree on the left, and a table view on the right. The table view has columns for Column, Column-Use, and LoadMod. The status bar at the bottom indicates "Connected as: P391P, file: XX40T#14" and "Lines: 61".

LineNo	Line
000190	0190 V.NETPRAOTZ,
000191	0191 V.TYPGUELAB_D_DRED,
000192	0192 V.UMTGUE_D_DRED,
000193	0193 V.OBJ#_S,
000194	0194 V.OBJTYP_S,
000195	0195 V.VERSOBJ,
000196	0196 V.OBJGUE_D_DRED
000197	0197 FROM POLICE V, PT_POLICE T
000198	0198 WHERE V.POLINT_S =
000199	0199 >>
000200	0200 *
000201	0201 PROCESS SQL POLICE <<
000202	0202 INSERT INTO POLICE
000203	0203 SELECT * FROM DT_POLICE
000204	0204 >>
000205	0205 *
000206	0206 PROCESS SQL POLICE <<
000207	0207 DELETE FROM PT_POLICE
000208	0208 >>
000209	0209 *
000210	0210 PROCESS SQL POLICE <<
000211	0211 DELETE FROM DT_POLICE
000212	0212 >>
000213	0213 ***** End of List *****

Natural – Libraries

The screenshot shows the XINFO PC Client interface with the 'Natural - Libraries' dialog box open. The dialog box contains the following fields:

Object	=		
Extract DSN	=		
DBID	=		
Library	=	TESTPROD	
Object Type	=	PROGRAM	OR
	=	SUBPROGRAM	
Userid	=		
NatVer	=		
Save Date	=		DD.MM.YYYY
Catalog Date	=		DD.MM.YYYY

Buttons at the bottom: OK, Actions, Cancel.

Callout bubble text: Which programs and subprograms are defined in library "TESTPROD"?

Natural – Libraries

The screenshot shows the XINFO PC Client interface for Natural libraries. The window title is "XINFO PC Client - Natural - Libraries". The menu bar includes File, Home, Table, Netplan, Barchart, Chart, Script, and View. The ribbon contains various tools like Copy, Select All, Toggle Selection, Customize, Use Default, Use Custom, Group, Statistics, All, Show SQL, New, and Library. The main workspace displays a table with the following data:

Object	DBID	Library	Type	Userid	NatVer	Save	Catalog	DSN
<all>	<...>	<all>	<all>	<all>	<all>	<...>	<all>	<all>
MELA	002	TESTPROD	PROGRAM	996	3.1.4		29.05.2001	DATA.XXR.SOURCE.NATURAL.D002.LIST133
TA2608N	002	TESTPROD	SUBPROGRAM	T21P928	3.1.4		24.07.2002	DATA.XXR.SOURCE.NATURAL.D002.LIST133
TD3002N	002	TESTPROD	SUBPROGRAM	T21P928	3.1.4		24.07.2002	DATA.XXR.SOURCE.NATURAL.D002.LIST133
X00106	002	TESTPROD	PROGRAM	995	2.2.8		16.02.2001	DATA.XXR.SOURCE.NATURAL.D002.LIST133

A callout box points to the table with the text: "Information about programs stored in library TESTPROD".

Connected as: P391P, file: XX40T#14

Lines: 4

Thanks for your attention! Do you have any questions?

The logo for 'HORIZONT' features the word in a bold, sans-serif font. The letter 'O' is highlighted in red, while the other letters are in dark grey. The background is light grey with a large red curved shape on the left and several faint, semi-transparent geometric shapes (squares and a triangle) scattered around the text.

HO R I Z O N T

Please feel free to visit us in Munich or send an email to
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