

# Predict Commands - Overview

All Predict functions can be invoked with commands or from batch jobs. The syntax and the use of all Predict commands are described in these sections.

This description provides a comprehensive summary of all functions and input fields in maps. Hence, the functional scope of Predict can be learned as well as which object types can be processed with which individual functions.

For an overview of all options to call a function (menu, command, workplan) see the section Predict User Interface in the Introduction to Predict documentation.

The use of commands in batch jobs is described under Predict in Batch Mode.

This section covers the following topics:

- How to Use Predict Commands
  - General Predict Commands
  - Standard Commands
  - Coordinator Commands
  - Type-specific Commands
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## How to Use Predict Commands

- Where to Enter Predict Commands
- Repeating Command Execution
- Truncating Predict Commands
- Syntax of Predict Commands
- Taking Parameter Values from the Command Context
- Specifying Commands in Keyword or Positional Form
- Delimiting Parameters in Predict Commands
- Metasyntax

## Where to Enter Commands

Predict commands can be entered:

- On any Predict screen containing the Command ==> prompt.  
The line containing this prompt is referred to throughout the Predict documentation as the command line.
- After the Natural NEXT prompt, preceded by CMD and separated by blank.
- In batch jobs: Retrieval, active retrieval, generation, incorporation and comparison commands are also available in batch mode, but most maintenance commands are not.

## Repeating Command Execution

The command LAST returns to the Predict Main Menu and displays the Predict command that was executed last. The command can then be modified or reexecuted.

## Truncating Commands

Commands can be truncated provided that the input remains unambiguous.

For example, the command GENERATE can be entered as G since no other command begins with G. However, the command LOGON must be entered in full, since truncations (LOGO, LOG etc.) could be confused with the LOGOFF command.

If the truncated command is ambiguous, the Predict command processor checks whether any accompanying object type is unambiguous. If so, it checks what commands can be applied to this object type.

## Syntax of Predict Commands

General and standard Predict commands have the following syntax:

**<command> <parameters>**

Type-dependent commands have the following syntax:

**<command><object-type><object-ID><parameters>**

or

**<command><object-type><association-type><object-ID><parameters>**

Meaning	
<command>	The command used to call a specific function, for example ADD, COPY, DISPLAY, RETRIEVE. Commands are written in upper case throughout the documentation.
<object-type>	Type of object to be processed, for example system or file.
<association-type>	Type of association to be processed, for example the association type for the command LINK.
<object-ID>	ID of the object to be processed.
<parameters>	Additional information needed to carry out the function.

## Taking Parameter Values from the Command Context

Wherever possible, Predict takes parameter values that are omitted from the context in which a command is entered:

- If an object type is omitted, the object type of the current menu is taken. If for example the command MAINTAIN is entered in the File Retrieval menu, the File Maintenance menu is displayed.
- Other parameter values are taken from the hot object table as far as possible. See Specifying Parameter Values in the section Predict User Interface in the Introduction to Predict documentation.

## Specifying Commands in Keyword or Positional Form

Commands can be specified in keyword form, positional form or a mixture of both. Throughout the documentations the command syntax is described in keyword form. The positional form is obtained by omitting the keywords and the Natural assign character (=). The assign character can be changed in Natural.

### Keyword Form

COMMAND KEY1=value1, KEY2=value2, KEY3=value3

or, if parameter 2 is omitted:

COMMAND KEY1=value1, KEY3=value3, KEY4=value4

## Positional Form

COMMAND value1, value2, value3

or, if parameter 2 is omitted:

COMMAND value1,, value3, value4

In the positional form, the omitted parameter is represented by an empty parameter only if followed by other parameters.

## Mixing Keyword and Positional Form

The keyword and positional form of specifying command parameters can be mixed.

COMMAND KEY5=value5, value6,, value8

## Delimiting Parameters in Predict Commands

The individual parameters in Predict commands are delimited by the character that is specified as the delimiter character in Natural. Throughout the following descriptions a comma (,) is used as the delimiter character. The delimiter character can be changed in Natural.

## Metasyntax

The following notations are used in the command descriptions:

[ ]	Square brackets indicate optional parts of a command that can be omitted.
<>	Parameter values are enclosed in angle brackets. Angle brackets must not be typed. Replace text in lower case with an appropriate value. Parentheses can be omitted only when the text they enclose is omitted.
KEYWORD	Keywords are shown in upper case and can be truncated provided that the input is unambiguous.

## General Predict Commands

General commands perform session management tasks. For a description of each command, see the list below.

- ACTIVE
- ADMINISTRATE
- BACK
- COMPARE
- COORDINATOR
- DEFAULT
- DUPL-LIST ELEMENT
- DUPL-SELECT ELEMENT
- END or .
- FIN
- GENERATE
- IMPLEMENT
- INCORPORATE
- LAST
- LOGOFF
- LOGON

- MAIN
- MAINTAIN
- MENU
- NEXT
- NPRLOGON
- PLAN
- PREPROCESS
- PROFILE
- PUNCH
- REASSIGN ELEMENT
- RESETHOT
- RETRIEVE
- SET<function>
- SPECIAL<function>
- WRITE

### Displaying Help Information

?	Displays the help screens for Predict commands.
??	Displays the Predict help main menu.
? nnnn	Displays the Natural message number nnnn.
? DIC nnnn	Displays the Predict message number nnnn.

### Terminating the Predict Session

END or .	Quits the Predict session.
FIN	Executes the Natural FIN command which causes immediate termination of the Predict and Natural session.

### ACTIVE <object-type>

Displays the Active Retrieval Menu for the specified object type.

<object type>	Code	Kind of Object Type
ELEMENT	EL	documentation object
FILE	FI	documentation object
PROGRAM	PR	documentation object
SYSTEM	SY	documentation object
VERIFICATION	VE	documentation object
MEMBER	ME	external object
XREF	XR	function

**ADMINISTRATE<object-type>**

Displays the Administration Implementation Menu for the specified object type.

Object Type	Code
DATABASE	DA
DATASPACE	DC
FILE	FI
STORAGESPACE	ST

**BACK**

Switches from Coordinator FDIC to Main FDIC. Returns to the Main FDIC from which you entered the COORDINATOR command.

**COMPARE <external-type>**

Invokes the Comparison function for the specified external object type.

External Object Type	Code	Command
Adabas Database	AD	ADABAS-DATABASE
Adabas File	AF	FDT
Vista Table	AT	VISTATAB
DDM for Natural	DD	DDM
DB2 Database	D2	DB2-DATABASE
Adabas Table/View	EQ	ESQ
DB2 Tables/View	T2	TABLE
DB2 Storagegroup	SG	STORAGEGROUP
DB2 Tablespace	TS	TABLESPACE

The parameters used depend on the type of external object and are listed under Comparison in the **External Objects in Predict documentation**.

**COORDINATOR**

Switches from Main FDIC to the Coordinator FDIC. Use the BACK command to return to your original environment.

**DEFAULT [<documentation-type>|<external-type>|<command-word>]**

Depending on which parameter is specified with the DEFAULT command, different defaults of Predict can be changed.

**Without <documentation-type>|<external-type>|<command-word>**

If only the command DEFAULT is entered, the Defaults Menu is displayed.

**With <documentation-type>**

If the command DEFAULT is entered with a documentation object type, the extended description skeleton for that object type can be modified.

See table below for list of object types and codes.

Documentation Object Type	Code
DATABASE	DA
DATASPACE	DC
EXTRACT	ET
FIELD	EL
FILE	FI
FILE RELATION	RL
INTERFACE	IE
KEYWORD	KY
LIBRARYSTRUCTURE	LS
METHOD	MD
NETWORK	NW
NODE	NO
PACKAGELIST	PG
PROGRAM	PR
PROPERTY	PY
REPORTLISTING	RT
SERVER	SV
STORAGESPACE	SC
SYSTEM	SY
TRIGGER	TR
USER	US
UDE type	user-defined
VERIFICATION	VE
VIRTUALMACHINE	VM

**With <external type>**

If the command DEFAULT is entered with an external object type, the generation defaults for that object type can be modified.

See table below for list of external object types and codes.

External Object Type	Code	Command Word
ADACMP Definition	AC	WAN, CMP
Adabas File	AF	FDT
Adabas Invert Definitions	AI	ADAINV
Vista Table	AT	VISTATAB
Adabas Security Definitions	AS	SCR
Transparency Table for Adabas VSAM Bridge	AV	AVB, ADAVSAM
Assembler Copy Code	BA	BAL, ASSEMBLER
C Include Code	CC	LANG-C
COBOL Copy Code	CO	COBOL
DB2 Database	D2	DB2-DATABASE
Data Definition Module	DD	DDM
User-defined Fields for IMS	UD	UDF
FORTRAN Copy Code	FO	FORTRAN
PL/I Include Code	PL	PLI
Verification Rule	RU	RULE
DB2 Storagegroup	SG	STORAGEGROUP
DB2 Table/View	T2	TABLE
DB2 Tablespace, SQL/DS DBspace	TS	TABLESPACE

### With <command word>

If the command DEFAULT is entered with one of the command words in the table below, the corresponding function from the Modify Defaults Menu is called, for example GENERAL executes the Modify general defaults function.

Command Word	Code	Function
EXIT		Activate User Exits
GENERAL		Modify General Defaults
COORDINATOR		Modify Coordinator Defaults
PROFILE		Modify DEFAULT Profile
SQL	SQ	Modify Adabas Native SQL Defaults
XREF	XR	Modify List XRef Default Profile

### DUPL-LIST ELEMENT <standard-file-id>

Executes special function Maintain standard fields > List duplicate standard fields. This function lists standard fields that have the same ID and identical standard attributes.

Use the parameter Standard file ID to limit the scope of the function. Asterisk notation is possible. If this parameter is not specified, all duplicated fields in all standard files are listed.

## DUPL-SELECT ELEMENT <standard-file-id>

Executes special function Maintain standard fields > Select duplicate standard fields. This function produces a list of standard fields with duplicate IDs and identical standard attributes. This list can be used to place a command in the workplan to resolve a duplication.

Use the parameter Standard file ID to limit the scope of the function. Asterisk notation is possible. If this parameter is not specified, all duplicated fields in all standard files are listed for selection.

## GENERATE<external-type>

Calls the Generation Menu for the external object type.

External Object Type	Code	Command Word
Adabas Compression Definition	AC	WAN, CMP
Adabas File	AF	FDT
Adabas Invert Definitions	AI	ADAINV
Vista Table	AT	VISTATAB
Adabas Security Definitions	AS	SCR
Transparency Table for Adabas VSAM Bridge	AV	AVB, ADAVSAM
Assembler Copy Code	BA	BAL, ASSEMBLER
C Include Code	CC	LANG-C
COBOL Copy Code	CO	COBOL
SQL CREATE Statement	CR	SQL-CREATE
DB2 Database	D2	DB2-DATABASE
Data Definition Module	DD	DDM
FORTRAN Copy Code	FO	FORTRAN
PL/I Include Code	PL	PLI
Verification Rule	RL	RULE
DB2 Storagegroup	SG	STORAGEGROUP
DB2 Table/View	T2	TABLE
DB2 Tablespace, SQL/DS DBspace	TS	TABLESPACE
User-defined Fields for IMS	UD	UDF

The parameters used depend on the type of external object and are listed in the respective section of **Generation** in the **External Objects in Predict documentation**.

**IMPLEMENT [FILE]**

Displays the File Implementation Menu.

**INCORPORATE <external-type>**

Displays the Incorporation Menu for the external object type.

External Object Type	Code	Command Word
Adabas D Table/View	BF	ESD-TABLE
Adabas Database	AD	ADABAS-DATABASE
Adabas File	AF	FDT
Adabas Table/View	EQ	ESQ
Vista Table	AT	VISTATAB
COBOL Copy Code	CO	COBOL
DB2 Database	D2	DB2-DATABASE
DB2 Storagegroup	SG	STORAGEGROUP
DB2 Tables/Views	T2	TABLE
DB2 Tablespace	TS	TABLESPACE
DDM	DD	DDM
IMS Database	ND	NDB
Ingres Table/View	JF	INGRES-TABLE
Informix Table/View	XF	INFORMIX-TABLE
Natural Security User	NS	SECURITY
Oracle Table/View	OF	ORACLE-TABLE
Super Natural User	SU	SUPER
Sybase Table/View	YF	SYBASE-TABLE

The parameters used depend on the type of external object. For a list see the respective section under Incorporation in the External Objects in Predict documentation.

**LAST**

Displays the last executed command in the command line for modification and/or reexecution.

**LOGOFF**

Executes the Natural LOGOFF command. See also the **Natural System Command Reference documentation** and the **Natural Security documentation**.

**LOGON <library-ID> <user-ID> <password>**

Executes the Natural LOGON command. For further description see the **Natural System Command Reference documentation** and the **Natural Security documentation**.

**MAIN**

Displays the Predict Main Menu. Predict session variables will keep their values.

**MAINTAIN <object-type>**

Displays the Maintenance Menu for the given object type.

**MENU**

Displays the Predict Main Menu. Predict session variables will be reset.

**NEXT**

Executes the next command in the workplan. See Using the Workplan under The User Interface in the Introduction to Predict documentation.

**NEXT -**

Executes the last command in the workplan.

**NPRLOGON <user> <password> <db-ID>**

Executes the LOGON command for Entire System Server (formerly NATURAL PROCESS). Parameters are described in the **Entire System Server Reference documentation**.

**PLAN**

Displays the user's workplan for execution or deletion of commands.

**PREPROCESS<language><member><library><user-ID>**

Processes the source program on workfile 1 with the preprocessor of the specified language. XRef data is created under the member, library and user ID specified.

**PROFILE [<user-ID>| SYSTEM]**

If entered without a parameter, this command is used to maintain user profiles. For further details see the section Predict User Interface in the Introduction to Predict documentation.

If entered with a user-ID, the profile of the given user is activated for the current Predict session.

If entered with SYSTEM, the default system profile is activated.

**PUNCH / WRITE<member><library>**

Punches copy code that was previously generated into a member in a library on the Predict system file to Natural workfile 1.

## REASSIGN ELEMENT

Executes special function Reassign standard relationships.

### REASSIGN ELEMENT <file 1> <field 1> <file 1> <field 2>

This function reassigns all references from one standard field to another standard field within the same file.

### REASSIGN ELEMENT <file 1> <field 1> <file 2> <field 1>

References to a standard field are transferred to a standard field with the same ID in a different standard file.

### REASSIGN ELEMENT <file 1> <field 1> <file 2> <field 2>

References to a standard field are transferred to a standard field with a different ID in a different standard file.

## RESETHOT

Resets all currently active hot objects.

## RETRIEVE <object-type>

Displays the Retrieval Menu for the given object type.

## SET <command word>

The following SET commands are available:

- SET CATALOG\_USER
- SET OUTPUT
- SET RESTRICTION
- SET SCHEMA\_OWNER
- SET VIRTUALMACHINE|VM

### SET CATALOG\_USER

This command is used for function Generate Adabas Table/View and administration functions Purge and Refresh for Adabas SQL Server objects. Use this command to set the ID and password of an Adabas SQL Server user with at least read access to the catalog. This command is required only once per session.

### SET OUTPUT

Defines Output options for subsequent retrieval operations. The output options that are applicable depend on the object type, the retrieval type and the output mode. See tables in the corresponding sections of Predefined Object Types in Predict or a cover page of a retrieval operation to see which output options are valid.

**Note:**

The SET OUTPUT command must be used with keyword parameters. Positional parameters are not permitted.

Keyword	Output Option	
ABSTRACT-CUR	No. comment lines/current	<b>Note:</b> COMMENT-CUR and COMMENT-REL can be used as synonyms for ABSTRACT-CUR and ABSTRACT-REL respectively, so that batch jobs created for earlier versions are still valid.
ABSTRACT-REL	No. comment lines/related	

<b>Keyword</b>	<b>Output Option</b>
ADA-SIZE	Adabas sizes
ADA-VER	Adabas version
ASSOCIATION-ATTR	Association attr.
ADA-ATTR	Adabas attributes
ATTR-CUR	Attributes of current object
ATTR-REL	Attributes of related object
CHECK-EXP	Check expression
COMPILER	Compiler
COMPONENTS	Composed fields
CON-FORM	Use Con-Form
COUNTER-LENGTH	Counter length
COVER	Cover page
DESC-CUR	Description/current
DESC-REL	Description/related
DIS-LENGTH	Display length
DIS-MOD	Display modifier
DUMMIES	Dummy/Placeholder/related
DUMMY-CUR	Dummy/Placeholder/current
ENTRY-POINTS	Entry points
EXPRESSION	DV-field expression
EXTRACT-CUR	Extracts/current
EXTRACT-REL	Extracts/related
GENLAY	Generation layout
KEY-CUR	Keywords
KEY-REL	current/related
LANGUAGE	Language
MARK-IMPL	Mark implementation
NAT-OPTIONS	Natural options
SYNC	Alignment/sync.
POS	Position/Offset
OW-CUR	Owners
OW-REL	current/related
PROCEDURE-CODE	Procedure code
PROFILE	Profile
PS	Page size

<b>Keyword</b>	<b>Output Option</b>
REPLACE-SYN	Replace with syn.
RULE	Rules
SHOW-IMPL	Show implementation
SORT-EL	Sorted by field
SUBQUERY	Subquery
SYNONYMS	Synonyms
TRIGGER	Trigger
USEREXIT	User exit
US-CUR	Owners/with users/current
US-REL	Owners/with users/related
VERIFICATIONS	Linked verification
3GL-SPEC	3GL specification

## SET RESTRICTION

Defines Restrictions for subsequent functions.

**Note:**

The SET RESTRICTION command must be used with keyword parameters. Positional parameters are not permitted.

<b>Keyword</b>	<b>Field</b>
EXTRACT	AND included in extract
FROM-DATE	AND from date  Enter FROM-DATE in the following format: YYYY-MM-DD<any non-blank char>HH:II. Date and time must be entered together.
KEY	With keyword(s)
KEY2	"
KEY3	"
KEY4	"
KEY5	"
KEY-NOT	BUT NOT with keyword
KEY-OP	combined by (AND/OR)
OWNER	AND with owner
PROFILE	Profile
SCAN-VALUE	And containing the string
SCAN-ABSTRACTS	Scan options/ Abstract  <b>Note:</b> SCAN-COMMENTS can be used as a synonym for SCAN-ABSTRACT, so that batch jobs created for earlier versions are still valid.
SCAN-DESC	Scan options/ Descr.
SCAN-RULES	Scan options/ Rules
SCAN-IGNORE-CASE	Scan options /Ignore case
SCAN-OBJ-ID	Scan options/ Object ID
SCAN-ABSOLUTE	Scan options/ Absolute

## SET SCHEMA\_OWNER

For function Generate Adabas Table/View if you are generating an object which uses the schema of another user. This command sets the ID and password of the schema owner.

## SET VIRTUALMACHINE|VM

Defines the Current virtual machine. This value can also be set using the Maintenance options of the function Modify User Defaults.

<b>Keyword</b>	<b>Field</b>	<b>Position</b>
ID	Current virtual machine	01

## SPECIAL <command-word>

Executes functions in the DDA Services/Special Functions Menu. If entered without command word, the DDA Services/Special Functions Menu appears.

If entered with command word, the corresponding Special Functions screen appears. Example: The command SPECIAL DEVICE calls the menu Maintenance Adabas Device Types.

### Additional Parameters of SPECIAL Commands

The SPECIAL commands marked with X in the table below can perform complete tasks both online and in batch mode and are described in more detail below.

The other commands merely invoke the corresponding special function submenu.

Function	Code	Predict Command	
Adabas device types	A	SPECIAL DEVICE	
Delete old sets	D	SPECIAL SET	X
Maintain Predict help texts	H	SPECIAL HELP	
Reposition Implementation Data	I	SPECIAL IMPLEMENTATION	X
Mass Grant	M	SPECIAL MASS	
Maintain NSC Definitions	N	SPECIAL NSC	
Recover	R	SPECIAL RECOVER	X
Security Adabas Online Services	S	SPECIAL Security	
Consistency of Predict	P	SPECIAL CONSISTENCY	X
Maintain Active References	X	SPECIAL XREF	X
Maintain standard fields	Z	SPECIAL STANDARD	
Refresh Coordinator FDIC	F	SPECIAL REFRESH	X
Mass delete of report listings	L	SPECIAL DELETE	

### SPECIAL CONSISTENCY

Checks the consistency of the Predict data. Special data correction may be performed. Update option must be set to Y if Predict data is to be modified. If set to N, inconsistencies will only be listed.

When operating in batch mode, the corresponding function code from the menu Check Consistency of Predict Data must appear in the line below the command. The keywords that are applicable depend on the function:

The following parameters may be specified in positional or keyword form in the line below.

Function	Code	Keyword	Field	Position
Check database records	B	UPDATE	With update (Y) only listing (N)	1
		OBJ-ID	Object ID	2
Check the extended description	D	UPDATE	With update (Y) only listing (N)	1
Conversion of the EDIT MASKS in field entries	E	UPDATE	With update (Y) only listing (N)	1
		OBJ-ID	Object ID	2
Check consistency of files and fields	F	UPDATE	With update (Y) only listing (N)	1
		OBJ-ID	Object ID	2
Compress help texts after INPL	H	UPDATE	With update (Y) only listing (N)	1
		OBJ-ID	Object ID	2
Check consistency of keywords	K	UPDATE	With update (Y) only listing (N)	1
Check entries for programs	P	UPDATE	With update (Y) only listing (N)	1
Conversion of free and automatic rules	R	UPDATE	With update (Y) only listing (N)	1
		OBJ-ID	Object ID	2
Check verifications	V	UPDATE	With update (Y) only listing (N)	1
Check naming conventions	N	TYPE	Object type	1
Check XREF data	X	UPDATE	With update (Y) only listing (N)	1
		DBNR	Library/ Database number	2
		FNR	Library/ File number	3
		LIBRARY	Library/ Library name	4
		PROGRAM	Program name	5
		USER	User ID used to create set	6

## SPECIAL IMPLEMENTATION

This command is used to adapt database/file numbers and implementation pointers to a new environment when the database/file number of a user system file is changed by an Adabas utility. See the section Reposition Implementation Data under Special Functions in the Predict Administration documentation.

In batch mode, the following parameters can be entered in keyword or positional form in the line following the command:

Keyword	Field	Position
OLD-DBNR	Database number	01
OLD-FNR	File number	02
OLD-LIB	Library	03
NEW-LIB	Library	04
ACTIVE	Active References	05
DOC	Program documentation	06
DEL-XREF (not used)	Delete wrong XRef data	07
FILL	Fill in documentation	08
LIST	List actions	09
ADD-TO-WP	Add to workplan	10

## SPECIAL RECOVER

Unlocks a file description. Some functions issue an intermediate ET to prevent a hold queue overflow. Until the function finishes successfully, the file description is inconsistent and is therefore locked by Predict. See the section Recover under Special Functions in the Predict Administration documentation.

In batch mode, the following parameter can be entered with or without keyword in the line following the command:

Keyword	Field	Position
FILE-ID	File ID	01

## SPECIAL REFRESH

This function clears the Coordinator FDIC if the user who started an import operation is not able to clear the Coordinator FDIC.

See the section Refresh Coordinator FDIC under Special Functions in the Predict Administration documentation.

Keyword	Field	Position
DBNR	Number of the database containing the Coordinator FDIC	1
FNR	File number of the Coordinator FDIC	2
PASSWORD	These parameters are only required if the Coordinator FDIC is protected by password and cipher	3
CIPHER		4

## SPECIAL SET

Deletes all sets in every library that were created before a certain date.

In batch mode, the following parameter can be entered with or without keyword in the line following the command:

Keyword	Field	Position
TO-DATE	To date	1

## SPECIAL XREF

Deletes the following types of XRef data.

- Preprocessor abend data
- 3GL data
- Natural data.

See Maintain Active References in the section Special Functions in the Predict Administration documentation.

Keyword	Field	Position
FUNCTION	Function	1
PR	Program	2
LIB	Library	3
FNR	User system file number	4
DBNR	User system database nr	5

Example: to delete a 3GL program with name 'TEST' enter

```
SPECIAL XREF
FUNCTION=G,PR=TEST
OR
SPECIAL XREF
G,TEST
```