select-clause select-clause

select-clause

The *select-clause* comprises either a Workplan of the type SELECTION or LIST, or selection specifications for the objects, FDTs or applications to be processed.

This section describes the syntax that applies to the *select-clause*. The keywords and variable values contained in the syntax diagrams represent the parameters that can be used to specify object selection criteria. If indicated, a variable value must be supplied with a keyword.

- Syntax of select-clause
- SELECTION or LIST Workplan
- Natural Library Object and DDM Selection
- Natural-Related Object Selection
- Natural System Error Message Selection
- Natural Command Processor Selection
- External File Selection
- FDT Selection
- Application Selection
- Object Selection for Delete Instructions

Syntax of select-clause

The *select-clause* consists of one of the following options:

(selection-workplan)
(list-workplan)
object-selection
delete-instruction-selection

The selection-workplan and list-workplan options are explained in SELECTION or LIST Workplan below.

The use of *object-selection* depends on the object type, DDM, FDT or application you want to process, for each of which the appropriate syntax and keywords are explained in the remainder of this section.

The delete-instruction-selection options are explained in Delete Instructions for Selected Objects.

SELECTION or LIST Workplan

A Workplan of the type SELECTION contains a header (TYPE SELECTION) and a selection from one of the following types of object or file: Natural library objects, Natural-related objects, Natural system error messages, Natural command processor sources, external files (external objects) or Adabas FDTs (Field Definition Tables).

A Workplan of the type LIST contains a header (TYPE LIST) and a selection list of objects as described in the section *Object List - LIST Workplan*. Such an object list can be used for the UNLOAD, LOAD or FIND command only.

For further information on using Workplans, see the section Workplans.

Natural Library Object and DDM Selection

This selection is used to select Natural objects for processing including Natural DDMs, user-defined error messages and shared resources.

The appropriate syntax is shown and explained in the following section.

• Syntax of Natural Library Object and DDM Selection

Syntax of Natural Library Object and DDM Selection

```
object-name
LIBRARY library-name
[DBID dbid FNR fnr]
[OBJTYPE group-type]
  SETNO set-number [SETUSER set-user] [SETLIBRARY set-library]
[NATTYPE object-type]
[SCKIND object-kind]
[MODE object-mode]
[FMNUM error-number-from]
[TONUM error-number-to]
[SLKIND message-type]
[LANGUAGE languages]
[DDMDBID ddm-dbid] [DDMFNR ddm-fnr]
[NATVERS natural-version]
  DATE date
  [FMDATE
  date-from]
  [TODATE date-to]
  [SIZE size]
  [FMSIZE
  size-from]
  [TOSIZE size-to]
[USERID user-id]
[TID terminal-id]
[except-clause]
```

except-clause

```
EXCEPT
( object-name
[LIBRARY library-name]
[OBJTYPE group-type]
[SCKIND object-kind]
[NATTYPE object-type]
[MODE object-mode]
[SLKIND message-type]
[FMNUM error-number-from] [TONUM error-number-to]
[LANGUAGE languages]
[DDMDBID ddm-dbid] [DDMFNR ddm-fnr]
[NATVERS natural-version]
    DATE date
    [FMDATE date-from] [TODATE date-to]
    SIZE size
    [FMSIZE size-from] [TOSIZE size-to]
[USERID user-id]
[TID terminal-id]
```

For the command FINDLIB, only the following keywords are processed: LIBRARY, DBID and FNR.

Keyword Explanation of Natural Library Object and DDM Selection

The keywords and valid values for the objects to be processed are described in the following section.

Keyword	Valid Values	Default Value
object-name	A valid object name or a range of names. If <i>object-name</i> contains blank characters, it must be enclosed in double quotation marks (" "). See also <i>Name</i> in <i>Name</i> , <i>Date and Time Specification</i> .	none
LIBRARY	A valid library name or a range of names. If SETNO is specified, a range of names is not allowed. See also <i>Name</i> .	none
DBID	A valid database ID.	0 (current FNAT/FUSER)

Keyword	Valid Values	Default Value
FNR	A valid file number.	0 (current FNAT/FUSER)
OBJTYPE	Types of object are:	*
	E Natural error messages	
	N Natural programming objects	
	R Shared resources	
	* Asterisk (all)	
	or a valid combination.	
SETNO	Only applies to the unload and find functions and if Predict is installed. Not applicable to application objects (see also <i>Selecting Application Objects</i>).	none
	A one- or two-digit number that identifies the retained set to be used for the names of the objects to be processed. A retained set is created with the save set option of the LIST XREF command.	
	If SETNO is specified, the value specified for <i>object-name</i> is ignored.	
	For detailed information on Predict sets, refer to the <i>Predict</i> documentation.	
SETUSER	Only applies to the unload and find functions and if Predict is installed. Not applicable to application objects (see also <i>Selecting Application Objects</i>).	*USER
	The ID of the user who created the Predict set. If no ID is specified, the value of the system variable *USER (see also the <i>System Variables</i> documentation) is used.	
SETLIBRARY	Only applies to the unload and find functions and if Predict is installed. Not applicable to application objects (see also <i>Selecting Application Objects</i>).	
	The name of the library to be searched for a Predict set. If you do not specify SETLIBRARY, the library specified with LIBRARY is used instead.	

Keyword	Valid Values	Default Value
NATTYPE	One or more single-character codes for Natural object types:	*
	P Program	
	N Subprogram	
	S Subroutine	
	C Copycode	
	H Helproutine	
	T Text	
	7 Function	
	8 Adapter	
	G Global data area	
	L Local data area	
	A Parameter data area	
	м Мар	
	4 Class	
	3 Dialog	
	5 Natural command processor	
	V DDM	
	* All object types	
SCKIND	The kind of Natural programming objects. Valid input values are:	A
	S Source objects: objects that are only stored in source form.	
	C Cataloged objects: objects that are only stored in cataloged form.	
	A All source and cataloged objects.	
	W All STOWed objects: source and cataloged objects with identical date and time.	
	B Source and cataloged objects if both exist.	
	Note: W and B are valid for the UNLOAD and FIND commands only. For LOAD and SCAN, W and B are valid entries, but they are treated like A (all objects). If data is processed in Transfer format, only S (source objects) or A applies.	

Keyword	Valid Values	Default Value
MODE	The programming mode of the Natural programming objects. Valid input values are:	
	A Any.	
	R All objects in reporting mode.	
	S All objects in structured mode.	
FMNUM	A start number of Natural error messages.	1
	Valid range: 1 to 9999.	
TONUM	An end number of Natural error messages.	9999
	Valid range: 1 to 9999.	or value of FMNUM (if specified)
	The value must be greater than or equal to the value of FMNUM, if specified.	(ii specifica)
SLKIND	The kind of Natural error message text. Valid input values are:	A
	S Short text. Cannot be applied to the DELETE command (see <i>Basic Command Syntax</i>).	
	L Long text.	
	A Short and/or long text.	
	B Short and long text, if both exist.	
LANGUAGE	Up to 8 valid language codes (for example, code 1 for English) of user-defined error messages. An asterisk (*) selects all language codes.	*
DDMDBID	The valid database ID (1 to 65535) of a DDM.	0
	UNLOAD, LOAD and SCAN: 0 denotes that no check is performed. DDMs are processed, regardless of their database ID (DBID).	
DDMFNR	The valid file number (1 to 65535) of a DDM.	0
	UNLOAD, LOAD and SCAN: 0 denotes that no check is performed. DDMs are processed, regardless of their file number (FNR).	
NATVERS	The Natural version of Natural programming objects.	blank (no check)
	Valid version format: <i>VRS</i> where <i>V</i> is the 1-digit version, <i>R</i> the 1-digit release, and <i>S</i> the 2-digit system maintenance level.	
	You can also specify a range of versions: see <i>Name</i> .	

Keyword	Valid Values	Default Value
DATE	The save or catalog date of Natural programming objects, and the date of shared resources.	blank (no check)
	You can add a time by inserting a blank between date and time. For the format and ranges allowed, see <i>Date</i> and <i>Time</i> in <i>Name</i> , <i>Date and Time Specification</i> .	
	Special terms allowed are YESTERDAY and TODAY. See Special Dates in Date.	
FMDATE	A start value:	blank
	The date on or after which Natural programming objects were cataloged or saved, and the date of shared resources. The format is identical to DATE. See <i>Date</i> .	(no check)
	Special terms allowed are YEAR, MONTH, YESTERDAY and TODAY. See <i>Special Dates</i> in <i>Date</i> .	
TODATE	An end value:	blank (no check)
	The date on or before which Natural programming objects were cataloged or saved, and the date of shared resources. The format is identical to DATE. See <i>Date</i> .	or high value (if FMDATE specified)
	Special terms allowed are YEAR, MONTH, YESTERDAY and TODAY. See <i>Special Dates</i> in <i>Date</i> .	
SIZE	The size of Natural programming objects and shared resources (up to 7 digits).	0 (no check)
FMSIZE	A start value:	0
	The minimum size of Natural programming objects and shared resources (up to 7 digits).	(no check)
TOSIZE	An end value:	0
	The maximum size of Natural programming objects and shared resources (up to 7 digits).	(no check) or high value (if FMSIZE specified)
USERID	The ID of the user who saved or cataloged the Natural programming objects.	blank (no check)
	You can also specify a range of user IDs: see <i>Name</i> .	
TID	The ID of the terminal where the Natural programming objects were saved or cataloged (provided by the Natural system variable *INIT-ID).	blank (no check)
	You can also specify a range of terminal IDs: see also <i>Name</i> .	

Keyword	Valid Values	Default Value
EXCEPT	All items that match the selection criteria entered before EXCEPT are checked against <i>all</i> parameters contained within the parentheses following the keyword EXCEPT. If they match all these parameters too, they are not processed.	not applicable

- 1. Parameters that are irrelevant for OBJTYPE are ignored. For example: DATE, SIZE and USERID have no meaning for Natural error messages.
- 2. DBID and FNR are ignored by the LOAD or SCAN command. These parameters must instead be specified in the *parameter-setting* clause as described for LOADFNAT... and LOADFUSER... in *Keyword Explanation of parameter-clause*.
- 3. If an object for shared resources contains blank characters, it must be enclosed in double quotation marks (" ").

Natural-Related Object Selection

This selection is used to select Natural-related objects for processing.

The appropriate syntax is shown and explained in the following section.

• Syntax of Natural-Related Object Selection

Syntax of Natural-Related Object Selection

```
object-name NATPATH natural-path-name

DATE date
[FMDATE date-from] [TODATE date-to]

SIZE size
[FMSIZE size-from] [TOSIZE size-to]

[EXCEPT
(object-name NATPATH natural-path-name

DATE date
[FMDATE date-from] [TODATE date-to]

SIZE size
[FMSIZE size-from] [TOSIZE size-to]

)]
```

Keyword Explanation of Natural-Related Object Selection

The keywords and valid input values for the objects to be processed are described in the following section.

Keyword	Valid Values	Default Value
object-name	The name of a Natural-related object. If <i>object-name</i> contains blank characters, it must be enclosed in double quotation marks (" ").	none
	See also Name in Name, Date and Time Specification.	
NATPATH	NATDIR NATGUI_BMP TMP_PATH NATBIN PROFILE_PATH PARM_PATH NATERR	none
DATE	The modification date of Natural-related objects. You can add a time by inserting a blank between date and time. For the format and ranges allowed, see <i>Date</i> and <i>Time</i> in <i>Name</i> , <i>Date</i> and <i>Time Specification</i> . Special terms allowed are: YESTERDAY and TODAY. See <i>Special Dates</i> in <i>Date</i> .	blank (no check)
FMDATE	A start value: The date on or after which Natural-related objects were modified. The format is identical to DATE. See <i>Date</i> . Special terms allowed are: YEAR, MONTH, YESTERDAY and TODAY. See <i>Special Dates</i> in <i>Date</i> .	blank (no check)
TODATE	An end value: The date on or before which Natural-related objects were modified. The format is identical to DATE. See <i>Date</i> . Special terms allowed are: YEAR, MONTH, YESTERDAY and TODAY. See <i>Special Dates</i> in <i>Date</i> .	blank (no check) or high value (if FMDATE specified)
SIZE	The size of Natural-related objects (up to 10 digits).	0 (no check)
FMSIZE	A start value:	0 (no check)
	The minimum size of Natural-related objects (up to 10 digits).	

Keyword	Valid Values	Default Value
TOSIZE	An end value: The maximum size of Natural-related objects (up to 10 digits).	0 (no check) or high value (if FMSIZE specified)
EXCEPT	See EXCEPT in Natural Library Object and DDM Selection.	

The NATPATH clause in the EXCEPT part is evaluated by the LOAD or SCAN command only.

Natural System Error Message Selection

This selection is used to select Natural system error messages for processing.

The appropriate syntax is shown and explained in the following section.

• Syntax of Natural System Error Message Selection

Syntax of Natural System Error Message Selection

```
ERROR NATERROR

[DBID dbid FNR fnr]

[FMNUM error-number-from] [TONUM error-number-to]

[SLKIND message-type]

[LANGUAGE languages]

[EXCEPT

(

[FMNUM error-number-from] [TONUM error-number-to]

[SLKIND message-type]

[LANGUAGE languages]

) ]
```

Keyword Explanation of Natural System Error Message Selection

The keywords and valid input values for the Natural system error messages to be processed are described in the following section.

Keyword	Valid Values	Default Value
DBID	Only applies to system error messages on mainframes. A valid database ID.	0 (current FNAT)
FNR	Only applies to system error messages on mainframes. A valid file number.	0 (current FNAT)
FMNUM	A start number of system error messages. Valid range: 1 to 9999.	1
TONUM	An end number of system error messages. Valid range: 1 to 9999. The value must be greater than or equal to the value of FMNUM if specified.	9999 or value of FMNUM (if specified)
SLKIND	See SLKIND in Natural Library Object and DDM Selection.	А
LANGUAGE	Up to 8 valid language codes (for example, code 1 for English) of system error messages.	*
	An asterisk (*) selects all language codes.	
EXCEPT	See EXCEPT in Natural Library Object and DDM Selection.	

DBID and FNR are ignored by the LOAD or SCAN command. These parameters must instead be specified in the *parameter-setting* clause as described for LOADFNAT... in *Keyword Explanation of parameter-clause*.

Natural Command Processor Selection

This selection is used to select Natural command processor sources for processing.

The appropriate syntax is shown and explained in the following section.

• Syntax of Natural Command Processor Source Selection

Syntax of Natural Command Processor Source Selection

```
object-name PROCESSOR ncp-library-name

DBID ncp-dbid FNR ncp-fnr [file-options]

[EXCEPT

(object-name

[LIBRARY ncp-library-name]

)]
```

file-options

```
[CIPHER ncp-cipher]

[ { PASSWORD } ncp-password ]
```

Note:

For the command FINDLIB, only the following keywords are processed: PROCESSOR, DBID, FNR, CIPHER and PASSWORD or PSW.

Keyword Explanation of Natural Command Processor Source Selection

The keywords and valid input values for the Natural command processor sources to be processed are described in the following section.

select-clause External File Selection

Keyword	Valid Values	Default Value
object-name	The name of a valid Natural command processor source or a range of names.	none
	See also Name in Name, Date and Time Specification.	
PROCESSOR	A valid library name or a range of names.	none
	See also <i>Name</i> .	
DBID	The valid database ID of the Adabas file where the Natural command processor sources are stored.	Value of LFILE 190
FNR	The valid file number of the Adabas file where the Natural command processor sources are stored.	Value of LFILE 190
CIPHER	The 8-digit cipher code of the Adabas file where the Natural command processor sources are stored.	blank
PASSWORD	The 8-character Adabas password of the Adabas file where the Natural	blank
or	command processor sources are stored.	
PSW		
EXCEPT	See EXCEPT in Natural Library Object and DDM Selection.	

Note:

DBID, FNR, CIPHER and PASSWORD or PSW are ignored by the LOAD or SCAN command. These parameters must instead be specified in the *parameter-setting* clause as described for LOADNCP... in *Keyword Explanation of parameter-clause*.

External File Selection

This selection is used to select external files (external objects) for processing.

The appropriate syntax is shown and explained in the following section.

• Syntax of External File Selection

Syntax of External File Selection

```
external-file-name PATH external-path-name

DATE date
[FMDATE date-from] [TODATE date-to]

SIZE size
[FMSIZE size-from] [TOSIZE size-to]

[EXCEPT
(external-file-name [PATH external-path-name]

DATE date
[FMDATE date-from] [TODATE date-to]

SIZE size
[FMSIZE size-from] [TOSIZE size-to]

)]
```

Keyword Explanation of External File Selection

The keywords and valid input values for the external files to be processed are described in the following section.

Keyword	Valid Values	Default Value
external-file-name	The name of an external file.	none
	If <i>external-file-name</i> contains blank characters, it must be enclosed in double quotation marks (" ").	
	See also Name in Name, Date and Time Specification.	
PATH	The name of the path where the external file is located.	none
DATE	The modification date of external files. You can add a time by inserting a blank between date and time. For the format and ranges allowed, see <i>Date</i> and <i>Time</i> in <i>Name</i> , <i>Date and Time Specification</i> .	blank (no check)
	Special terms allowed are YESTERDAY and TODAY. See Special Dates in Date.	
FMDATE	A start value: The date on or after which external files were modified. The format is identical to DATE. See <i>Date</i> . Special terms allowed are YEAR, MONTH, YESTERDAY and TODAY. See <i>Special Dates</i> .	blank (no check)
TODATE	An end value: The date on or before which external files were modified. The format is identical to DATE. See <i>Date</i> . Special terms allowed are YEAR, MONTH, YESTERDAY and TODAY. See <i>Special Dates</i> .	blank (no check) or high value (if FMDATE specified)
SIZE	The size of external files (up to 10 digits).	0 (no check)
FMSIZE	A start value: the minimum size of external files (up to 10 digits).	0 (no check)
TOSIZE	An end value: The maximum size of external files (up to 10 digits).	0 (no check) or high value (if FMSIZE specified)
EXCEPT	See EXCEPT in Natural Library Object and DDM Selection.	

The NATPATH clause in the EXCEPT part is only evaluated by the LOAD and SCAN commands.

FDT Selection select-clause

FDT Selection

This selection is used to select Adabas FDTs (Field Definition Tables) for processing.

For loading FDTs, see also *FDTs* in the section *Object Specification*.

The appropriate syntax is shown and explained in the following section.

• Syntax of FDT Selection

Syntax of FDT Selection

```
FDT

DBID dbid

FNR fnr [CIPHER cipher] 

PASSWORD | password | PSW | PS
```

Keyword Explanation of FDT Selection

The keywords and valid input values for the FDTs to be processed are described in the following section.

Keyword	Valid Values	Default Value
DBID	The database ID of the FDT.	none
FNR	The file number of the FDT.	none
CIPHER	The 8-digit Adabas cipher code of the FDT.	none
PASSWORD	The 8-character Adabas password of the FDT.	none
or		
PSW		
FMFNR	Only applies to the FIND or UNLOAD command.	none
	A start value: The file number (FNR) of an FDT.	
TOFNR	Only applies to the FIND or UNLOAD command.	none
	An end value: The file number (FNR) of an FDT.	

select-clause Application Selection

Application Selection

This selection applies to applications created and maintained in Natural Studio's application workspace and the libraries or objects that belong to these applications.

The appropriate syntax is shown and explained in the following section.

- Selecting Base and Compound Applications
- Selecting Application Libraries
- Selecting Application Objects

Selecting Base and Compound Applications

This selection only applies to the find function.

Syntax

```
APPLICATION APNAME application-name

[APTYPE application-type]

[COMPAPPLICATION compound-application-name]

[EXCEPT

(APNAME application-name

[APTYPE application-type]

)]
```

Selecting Application Libraries

This selection only applies to the find function.

Syntax

```
APPLICATION APLIBRARY application-library-name

[BASEAPPLICATION base-application-name]

[COMPAPPLICATION compound-application-name]

[DBID dbid [FNR fnr]

[EXCEPT

(APLIBRARY application-library-name

[BASEAPPLICATION base-application-name]

)]
```

Selecting Application Objects

This selection only applies to the find and unload functions.

Syntax

```
APPLICATION APOBJECTS application-object-name

[BASEAPPLICATION base-application-name]

[COMPAPPLICATION compound-application-name]

[LIBRARY library-name]

[object-specification]

[EXCEPT

(APOBJECT application-object-name

[LIBRARY library-name]

[BASEAPPLICATION base-application-name]

[object-specification]

)]
```

Keyword Explanation of Application Selection

The keywords and valid input values for the applications, application libraries or application objects to be processed are described in the following section.

Keyword	Valid Values	Default Value
APNAME	A valid name of a Natural application or a range of names. See also <i>Name</i> in <i>Name</i> , <i>Date and Time Specification</i> .	*
АРТҮРЕ	A valid application type: B Base application Compound application * All: base and/or compound applications	*

Keyword	Valid Values	Default Value
COMPAPPLICATION	Only applies if APTYPE is set to * or B.	none
	The name of a compound application to which the specified base application belongs or a range of names.	
	Only base applications that belong to the specified compound application(s) are selected; base applications that do not belong to a compound application are not selected.	
EXCEPT	See EXCEPT in Natural Library Object and DDM Selection.	not applicable
APLIBRARY	The valid name of a library that belongs to a Natural base or compound application or a range of names.	*
	See also Name in Name, Date and Time Specification.	
BASEAPPLICATION	The valid name of a Natural base application to which an application library or application object belongs.	*
	See also Name in Name, Date and Time Specification.	
DBID	The valid database ID of an application library.	0 (no check)
FNR	The valid file number of an application library.	0 (no check)
APOBJECT	The valid name of an application object that belongs to a base or compound application, or a range of names.	*
	See also Name in Name, Date and Time Specification.	
LIBRARY	A valid library name or a range of names.	*
	If OBJTYPE is set to D (see <i>Natural Library Object and DDM Selection</i>), the library name is ignored.	
	See also Name in Name, Date and Time Specification.	
object-specification	Indicates that additional selection criteria can be specified for application objects as shown in the syntax diagram for Natural library objects and DDMs: all items listed below LIBRARY library-name can also be applied to application objects whereas object-name in the EXCEPT clause is irrelevant for application objects.	not applicable

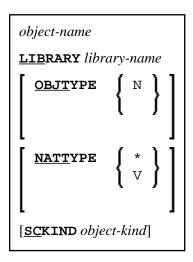
Object Selection for Delete Instructions

This selection is used to specify delete instructions for Natural library objects, DDMs, user-defined error messages and Natural system error messages. The delete instructions are executed when a work file of internal format is loaded in the target environment with the DELETEALLOWED option specified.

The appropriate syntax is shown and explained in the following section.

- Syntax of Delete Instructions for Natural Library Objects and DDMs
- Syntax of Delete Instructions for User-Defined Error Messages
- Syntax of Delete Instructions for Natural System Error Messages

Syntax of Delete Instructions for Natural Library Objects and DDMs



Keyword Explanation of Delete Instructions for Natural Library Objects and DDMs

The keywords and valid values for the objects to be processed are described in the following section.

Keyword	Valid Values	Default Value
object-name	A valid object name or a start value (<i>value</i> *) for a range of names such as ABC*.	none
LIBRARY	A valid library name. A range specification is <i>not</i> allowed.	none
OBJTYPE	A valid object-type code:	*
	N Natural programming objects	
NATTYPE	A Natural object type. Valid input values are:	*
	* All object types	
	V DDMs	
SCKIND	The kind of Natural programming objects. Valid input values are:	A
	S Source objects. If used in the <i>except-clause</i> (see <i>Syntax of Natural Library Object and DDM Selection</i>): objects that are stored only in source form.	
	C Cataloged objects. If used in the <i>except-clause</i> : objects that are stored only in cataloged form.	
	A All source and cataloged objects.	

Syntax of Delete Instructions for User-Defined Error Messages

*

LIBRARY library-name

OBJTYPE E

FMNUM error-number-from

[TONUM error-number-to]

[SLKIND message-type]

[LANGUAGE languages]

library-name denotes the name of a single library; a range specification is not allowed.

For explanations of the other elements used in this syntax, see *Keyword Explanation of Natural Library Object and DDM Selection*.

Syntax of Delete Instructions for Natural System Error Messages

ERROR NATERROR

 $\textbf{FMNUM}\ error-number-from$

[TONUM error-number-to]

[SLKIND message-type]

[LANGUAGE languages]

For explanations of the elements used in this syntax, see *Keyword Explanation of Natural System Error Message Selection*.