

# Object Handler - Select-Clause

The Select-Clause is used to define a Workplan of the type SELECTION or object selection criteria for the objects to be processed. For a description of the types of object, refer to the section Object Specification.

This section describes the syntax that applies to the Select-Clause.

**Note:**

\* The notation "see (\*)" in the tables below regarding name, date and time parameters refers to the section Name, Date and Time Specification.

The Select-Clause consists of one of the following:

- SELECTION Workplan
- Natural Object and DDM Selection
- Natural-related Debug Environment Selection
- Natural-related Profile Selection
- Natural-related DL/I Subfile Selection
- Natural System Error Selection
- Natural Command Processor Selection
- FDT Selection

**Natural DDM Selection:**

To select Natural DDMs (data definition modules), the same syntax applies as described for Natural Object Selection.

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## SELECTION Workplan

A Workplan of the type SELECTION contains a selection from one of the following types of object or file: Natural objects, Natural-related objects, Natural system error messages, Natural command processor sources, DDMs or Adabas FDTs (Field Definition Tables). Alternatively, the Workplan can contain a selection list of objects as described in the section Object List. Such an object list can be used for the FIND and UNLOAD commands only.

For the syntax that applies to Workplans, see Referencing Workplans in the section Workplans.

## Natural Object and DDM Selection

This selection is used to select Natural objects for processing.

Natural DDMs (data definition modules) are processed like Natural objects, except for OBJTYPE, which must be set to **D**. However, as described below, not all of the keywords available apply to DDMs.

### Syntax

<p><i>object-name</i></p> <p><b>LIBRARY</b> <i>library-name</i></p> <p>[ <b>DBID</b> <i>dbid</i> <b>FNR</b> <i>fnr</i> [<b>NAME</b> <i>vsam-name</i> ] [<b>CIPHER</b> <i>cipher</i> ] [ { <b>PASSWORD</b> <b>PSW</b> } <i>password</i> ] ]</p> <p>[<b>OBJTYPE</b> <i>resource-type</i> ]</p> <p>[<b>NATTYPE</b> <i>object-type</i> ]</p> <p>[<b>SCKIND</b> <i>object-kind</i> ]</p> <p>[<b>MODE</b> <i>object-mode</i> ]</p> <p>[<b>FMNUM</b> <i>error-number-from</i> ]</p> <p>[<b>TONUM</b> <i>error-number-to</i> ]</p> <p>[<b>SLKIND</b> <i>message-type</i> ]</p> <p>[<b>LANGUAGE</b> <i>languages</i> ]</p> <p>[<b>DDMDBID</b> <i>dmm-dbid</i> ] [<b>DDMFNR</b> <i>dmm-fnr</i> ]</p> <p>[<b>NATVERS</b> <i>natural-version</i> ]</p> <p>[ { <b>DATE</b> <i>date</i> } ]</p> <p>[ { <b>FMDATE</b> <i>date-from</i> } [<b>TODATE</b> <i>date-to</i> ] ]</p> <p>[ { <b>SIZE</b> <i>size</i> } ]</p> <p>[ { <b>FMSIZE</b> <i>size-from</i> } [<b>TOSIZE</b> <i>size-to</i> ] ]</p> <p>[<b>USERID</b> <i>user-id</i> ]</p> <p>[<b>TID</b> <i>terminal-id</i> ]</p> <p>[<b>EXCEPT</b>- Clause]</p>
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**EXCEPT-Clause****EXCEPT***(object-name*[**LIBRARY** *library-name* ][**OBJTYPE** *resource-type* ][**SCKIND** *object-kind* ][**NATTYPE** *object-type* ][**MODE** *object-mode* ][**SLKIND** *message-type* ][**FMNUM** *error-number-from*] [**TONUM** *error-number-to* ][**LANGUAGE** *languages* ][**DDMDBID** *dsm-dbid* ] [**DDMFNR** *dsm-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* ]

)

**Note:**

For the command FINDLIB, only the following keywords are processed: **LIBRARY**, **DBID**, **FNR**, **NAME**, **CIPHER** and **PASSWORD/PSW**.

### Keyword Explanation - Natural Object Selection

The keywords and valid values for the objects to be processed are described below:

Keyword	Valid Values	Default Value
<i>object-name</i>	A valid Natural 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 Name.	none
<u>LIBRARY</u>	A valid Natural library name or a range of names.  If OBJTYPE= <b>D</b> (see below), the library name is ignored.  (* ) See also Name.	none
DBID	Not valid for DDMs on mainframes (OBJTYPE <b>D</b> - see below).  A valid database ID (DBID).	0 (current FNAT/FUSER)
FNR	Not valid for DDMs on mainframes (OBJTYPE <b>D</b> - see below).  A valid file number (FNR).	0 (current FNAT/FUSER)
NAME	Only applies to objects on mainframes. Not valid for DDMs on mainframes (OBJTYPE <b>D</b> - see below).  A valid VSAM name.	blank (current FNAT/FUSER)
CIPHER	Only applies to objects on mainframes. Not valid for DDMs on mainframes (OBJTYPE <b>D</b> - see below).  The 8-digit cipher code of the Adabas file where the objects are stored.	blank (current FNAT/FUSER)
PASSWORD PSW	Only applies to objects on mainframes.  An 8-character Adabas password.	blank (current FNAT/FUSER)
<u>OBJTYPE</u>	Types of object are:  <ul style="list-style-type: none"> <li><b>D</b> DDMs (objects on mainframes only)</li> <li><b>E</b> Natural error messages</li> <li><b>N</b> Natural programming objects</li> <li>* Asterisk (all)</li> </ul> or a valid combination.  <b>Exception:</b> OBJTYPE <b>D</b> cannot be combined with any other type.	*
<u>NATTYPE</u>	Not applicable to OBJTYPE <b>D</b> (see above).  Up to 15 valid Natural object types, such as <b>P</b> for program and <b>V</b> for DDMs.  Asterisk (*) = all	*

Keyword	Valid Values	Default Value
<u>S</u> CKIND	<p>Not applicable if OBJTYPE <b>D</b> (see above).</p> <p>The kind of Natural programming objects. Valid letters:</p> <p><b>S</b> Source objects. If used in the EXCEPT-Clause: objects that are stored only in source form.</p> <p><b>C</b> Cataloged objects. If used in the EXCEPT-Clause: objects that are stored only in source form.</p> <p><b>A</b> All saved and cataloged objects.</p> <p><b>W</b> Source and cataloged objects if both have the same date and time (stowed).</p> <p><b>B</b> Source and cataloged objects if both exist.</p> <p><b>Note:</b> <b>W</b> (stowed) and <b>B</b> (both) are valid for the UNLOAD and FIND commands only. For LOAD and SCAN, <b>W</b> and <b>B</b> are valid entries, but they are treated like <b>A</b> (all objects). If data is processed in Transfer format, only <b>S</b> (source objects) and <b>A</b> applies.</p>	A
MODE	<p>Not applicable if OBJTYPE <b>D</b> (see above).</p> <p>The programming mode of the Natural programming objects. Valid letters:</p> <p><b>A</b> Any.</p> <p><b>R</b> All objects in reporting mode.</p> <p><b>S</b> All objects in structured mode.</p>	A
FMNUM	<p>A start number of Natural error messages. Valid range: 1 to 9999.</p>	1
TONUM	<p>An end number of Natural error messages. Valid range: 1 to 9999. The value must be greater than or equal to the value of FMNUM, if specified.</p>	9999 or value of FMNUM (if specified)

Keyword	Valid Values	Default Value
<u>SLKIND</u>	The type of Natural error message text. Valid letters:  <b>S</b> Short text. Cannot be applied to the DELETE command (see Direct and PROCEDURE Workplan Commands).  <b>L</b> Long text.  <b>A</b> Short and long text, or the one that exists.  <b>B</b> Short and long text, but only if both exist.	A
<u>LANGUAGE</u>	Up to 8 valid language codes of Natural error messages. Asterisk (*) = all language codes.	*
DDMDBID	The valid database ID (1 to 65535) of a DDM. 0 = all database IDs (DBIDs).	0 (no check)
DDMFNR	The valid file number (1 to 65535) of a DDM. 0 = all file numbers (FNRs).	0 (no check)
NATVERS	The Natural version of Natural programming objects.  Valid version format: <i>VRSM</i> where <i>V</i> is the 1-digit version, <i>R</i> the 1-digit release, and <i>SM</i> the 2-digit system maintenance level. You can also specify a range of versions: see (*) Name.	blank (no check)
DATE	The save or catalog date of Natural programming objects. You can add a time by inserting a blank between date and time. For the format and ranges allowed, see (*) Date and (*) Time.  Special terms allowed are <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check)
FMDATE	A start value: The date on or after which Natural programming objects were cataloged or saved. The format is identical to DATE. See (*) Date.  Special terms allowed are <u>YEAR</u> , <u>MONTH</u> , <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check)
TODATE	An end value: The date on or before which Natural programming objects were cataloged or saved. The format is identical to DATE. See (*) Date.  Special terms allowed are <u>YEAR</u> , <u>MONTH</u> , <u>YESTERDAY</u> and <u>TODAY</u> . See (*) Special Dates.	blank (no check) or high value (if FMDATE specified)
SIZE	The size of Natural programming objects (up to 7 digits).	0 (no check)
FMSIZE	A start value: The minimum size of Natural programming objects (up to 7 digits).	0 (no check)

Keyword	Valid Values	Default Value
TOSIZE	An end value: The maximum size of Natural programming objects (up to 7 digits).	0 (no check) or high value (if FMSIZE specified)
<u>USERID</u>	The ID of the user who saved or cataloged the Natural programming objects  You can also specify a range of user IDs: see (*) Name.	blank (no check)
TID	Not applicable if OBJTYPE=D (see above).  The ID of the terminal where the Natural programming objects were saved or cataloged (provided by the Natural system variable *INIT-ID).  You can also specify a range of terminal IDs: see also (*) Name.	blank (no check)
EXCEPT	All objects that match the selection criteria entered before EXCEPT are checked against <b>all</b> parameters contained within the parentheses following the keyword EXCEPT. If they match all these parameters too, they are not processed.	not applicable

**Note:**

- Parameters that are irrelevant for OBJTYPE are ignored. For example: DATE, SIZE and USERID have no meaning for Natural error messages.
- DBID, FNR, NAME, CIPHER and PASSWORD/PSW are ignored by the LOAD and SCAN commands. These parameters must instead be specified in the Parameter-Setting clause as described for LOADFNAT... and LOADFUSER... in Keyword Explanation - Parameter-Setting.

## Natural-related Debug Environment Selection

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

### Syntax

<pre> <i>object-name</i>  NATPATH DEBUG [<u>LIBRARY</u> <i>library-name</i>] [<u>DBID</u> <i>dbid</i> [<u>FNR</u> <i>fnr</i>] ] [<u>NAME</u> <i>vsam-name</i>] [<u>CIPHER</u> <i>cipher</i>] [   {     PASSWORD     PSW   } <i>password</i> ] [ <u>EXCEPT</u> ( <i>object-name</i> [<u>LIBRARY</u> <i>library-name</i> ] ) ] </pre>
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### Keyword Explanation - Natural-related Debug Environment Selection

The keywords and valid values for the objects to be processed are described below:

Keyword	Valid Values	Default Value
<i>object-name</i>	A valid object name or a range of names. See also (*) Name.	none
LIBRARY	A valid Natural library name or a range of names. (*) See also Name.	none
DBID	A valid database ID (DBID).	0 (current FUSER)
FNR	A valid file number (FNR).	0 (current FUSER)
NAME	A valid VSAM name.	blank (current FUSER)
CIPHER	The 8-digit cipher code of the Adabas file where the objects are stored.	blank (current FUSER)
PASSWORD	An 8-character Adabas password.	blank (current FUSER)
PSW		
EXCEPT	See EXCEPT under Natural Object Selection.	not applicable

**Note:**

DBID, FNR, NAME, CIPHER and PASSWORD/PSW are ignored by the LOAD and SCAN commands. These parameters must instead be specified in the Parameter-Setting clause as described for LOADFNAT... and LOADFUSER... in Keyword Explanation - Parameter-Setting.

## Natural-related Profile Selection

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

### Syntax

```

object-name

  NATPATH PROFILE

  [OBJTYPE profile-type ] [DBID dbid [FNR fnr ] ]

  [NAME vsam-name ] [CIPHER cipher ]

  [ { PASSWORD
      PSW
    } password ]

  [ EXCEPT ( object-name [OBJTYPE profile-type ] ) ]
    
```

### Keyword Explanation - Natural-related Profile Selection

The keywords and valid values for the objects to be processed are described below:

Keyword	Valid Values	Default Value
<i>object-name</i>	A valid object name or a range of names.  See also (*) Name.	none
<b>OBJTYPE</b>	The type of profile:  <b>D</b> Device profile <b>E</b> Editor profile <b>M</b> Map profile <b>P</b> Parameter profile * Asterisk (all profile types)  or any combination.	*
<b>DBID</b>	A valid database ID (DBID).	0 (current FNAT)
<b>FNR</b>	A valid file number (FNR).	0 (current FNAT)
<b>NAME</b>	A valid VSAM name.	blank (current FNAT)
<b>CIPHER</b>	The 8-digit cipher code of the Adabas file where the objects are stored.	blank (current FNAT)
<b>PASSWORD</b>	An 8-character Adabas password.	blank (current FNAT)
<b>PSW</b>		
<b>EXCEPT</b>	See EXCEPT under Natural Object Selection.	not applicable

**Note:**

DBID, FNR, NAME, CIPHER and PASSWORD/PSW are ignored by the LOAD and SCAN commands. These parameters must instead be specified in the Parameter-Setting clause as described for LOADFNAT... and LOADFUSER... in Keyword Explanation - Parameter-Setting.

## Natural-related DL/I Subfile Selection

This selection is used to select Natural-related DL/I subfiles for processing.

### Syntax

```

object-name

NATPATH SUBFILE

[OBJTYPE subfile-type] [DBID dbid [FNR fnr ]
[NAME vsam-name] [CIPHER cipher
[
    {     PASSWORD     }
    PSW             } password
]

[ EXCEPT ( object-name [OBJTYPE subfile-type ] ) ]
    
```

**Keyword Explanation - Natural-related DL/I Selection**

The keywords and valid values for the objects to be processed are described below:

<b>Keyword</b>	<b>Valid Values</b>	<b>Default Value</b>
<i>object-name</i>	A valid object name or a range of names. See also (*) Name.	none
<b>OBJTYPE</b>	The type of DL/I subfile:  <b>D</b> NDB <b>P</b> NSB *   Asterisk (both subfile types)	*
<b>DBID</b>	A valid database ID (DBID).	0 (current FDIC)
<b>FNR</b>	A valid file number (FNR).	0 (current FDIC)
<b>NAME</b>	A valid VSAM name.	blank (current FDIC)
<b>CIPHER</b>	The 8-digit cipher code of the Adabas file where the objects are stored.	blank (current FDIC)
<b>PASSWORD</b>	An 8-character Adabas password.	blank (current FDIC)
<b>PSW</b>		
<b>EXCEPT</b>	See EXCEPT under Natural Object Selection.	not applicable

**Note:**

DBID, FNR, NAME, CIPHER and PASSWORD/PSW are ignored by the LOAD and SCAN commands. These parameters must instead be specified in the Parameter-Setting clause as described for LOADFNAT... and LOADFUSER... in Keyword Explanation - Parameter-Setting.

# Natural System Error Selection

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

## Syntax

```

ERROR NATERROR
    [
        DBID dbid FNR fnr [NAME vsam-name ] [CIPHER cipher ]
        [ { PASSWORD } password ]
        [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 - Natural System Error Selection

The keywords and valid values for the Natural system error messages to be processed are described below:

Keyword	Valid Values	Default Value
DBID	Only applies to objects on mainframes. A valid database ID (DBID).	0 (current FNAT)
FNR	Only applies to objects on mainframes. A valid file number (FNR).	0 (current FNAT)
NAME	Only applies to objects on mainframes. A valid VSAM name.	blank (current FNAT)
CIPHER	Only applies to objects on mainframes. The 8-digit cipher code of the Adabas file where the Natural system error messages are stored.	blank (current FNAT)
PASSWORD PSW	Only applies to objects on mainframes. An 8-character Adabas password.	blank (current FNAT)
FMNUM	A start number of Natural system error messages. Valid range: 1 to 9999.	1
TONUM	An end number of Natural 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 under Natural Object Selection.	A
LANGUAGE	Up to 8 valid language codes of Natural system error messages. Asterisk (*) = all language codes.	*
EXCEPT	See EXCEPT under Natural Object Selection.	

**Note:**

DBID, FNR, NAME, CIPHER and PASSWORD/PSW are ignored by the LOAD and SCAN commands. These parameters must instead be specified in the Parameter-Setting clause as described for LOADFNAT... in Keyword Explanation - Parameter-Setting.

## Natural Command Processor Selection

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

### Syntax

<i>object-name</i> <b>PROCESSOR</b> <i>ncp-library-name</i>																																																																																													
<table border="0"> <tr> <td style="padding-right: 10px;">[</td> <td style="padding-right: 10px;"><b>DBID</b></td> <td style="padding-right: 10px;"><i>ncp-dbid</i></td> <td style="padding-right: 10px;"><b>FNR</b></td> <td style="padding-right: 10px;"><i>ncp-fnr</i></td> <td style="padding-right: 10px;">[</td> <td style="padding-right: 10px;"><b>NAME</b></td> <td style="padding-right: 10px;"><i>ncp-vsam-name</i></td> <td style="padding-right: 10px;">]</td> <td style="padding-right: 10px;">[</td> <td style="padding-right: 10px;"><b>CIPHER</b></td> <td style="padding-right: 10px;"><i>ncp-cipher</i></td> <td style="padding-right: 10px;">]</td> <td style="padding-right: 10px;">]</td> </tr> <tr> <td style="padding-right: 10px;">[</td> <td style="padding-right: 10px;"><b>EXCEPT</b></td> <td style="padding-right: 10px;">(</td> <td colspan="10"></td> <td style="padding-right: 10px;">]</td> </tr> <tr> <td colspan="3"></td> <td colspan="10" style="text-align: center;"><i>object-name</i></td> </tr> <tr> <td colspan="3"></td> <td colspan="10" style="text-align: center;"><b>[LIBRARY</b> <i>ncp-library-name</i>]</td> </tr> <tr> <td colspan="3"></td> <td colspan="10" style="text-align: center;">)</td> </tr> <tr> <td colspan="3"></td> <td colspan="10"></td> </tr> </table>	[	<b>DBID</b>	<i>ncp-dbid</i>	<b>FNR</b>	<i>ncp-fnr</i>	[	<b>NAME</b>	<i>ncp-vsam-name</i>	]	[	<b>CIPHER</b>	<i>ncp-cipher</i>	]	]	[	<b>EXCEPT</b>	(											]				<i>object-name</i>													<b>[LIBRARY</b> <i>ncp-library-name</i> ]													)																							<table border="0"> <tr> <td style="padding-right: 10px;">[</td> <td style="padding-right: 10px;">{</td> <td style="padding-right: 10px;"><b>PASSWORD</b></td> <td style="padding-right: 10px;">}</td> <td style="padding-right: 10px;"><i>ncp-password</i></td> <td style="padding-right: 10px;">]</td> </tr> <tr> <td colspan="2"></td> <td style="padding-right: 10px;"><b>PSW</b></td> <td colspan="3"></td> </tr> </table>	[	{	<b>PASSWORD</b>	}	<i>ncp-password</i>	]			<b>PSW</b>			
[	<b>DBID</b>	<i>ncp-dbid</i>	<b>FNR</b>	<i>ncp-fnr</i>	[	<b>NAME</b>	<i>ncp-vsam-name</i>	]	[	<b>CIPHER</b>	<i>ncp-cipher</i>	]	]																																																																																
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**Note:**

For the command FINDLIB only the following keywords are processed: PROCESSOR, DBID, FNR, NAME, CIPHER and {PASSWORD/PSW}.

### Keyword Explanation - Natural Command Processor Selection

The keywords and valid values for the Natural command processor sources to be processed are described below:

Keyword	Valid Values	Default Value
<i>object-name</i>	The name of a valid Natural command processor source or a range of names. See also (*) Name.	none
<b>PROCESSOR</b>	A valid Natural library name or a range of names. See also (*) Name.	none
<b>DBID</b>	The valid database ID (DBID) of the Adabas file where the Natural command processor sources are stored.	0 (current FNAT/FUSER)
<b>FNR</b>	The valid file number (FNR) of the Adabas file where the Natural command processor sources are stored.	0 (current FNAT/FUSER)
<b>NAME</b>	Only applies to objects on mainframes. A valid VSAM name.	blank
<b>CIPHER</b>	The 8-digit cipher code of the Adabas file where the Natural command processor sources are stored.	blank
<b>PASSWORD</b> <b>PSW</b>	The 8-character Adabas password of the Adabas file where the Natural command processor sources are stored.	blank
<b>EXCEPT</b>	See EXCEPT under Natural Object Specification.	

**Note:**

DBID, FNR, NAME, CIPHER and PASSWORD/PSW are ignored by the LOAD and SCAN commands. These parameters must instead be specified in the Parameter-Setting clause as described for LOADNCP... in Keyword Explanation - Parameter-Setting.

## 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 following syntax applies when processing FDTs:

### Syntax

<b>FDT</b>
<b>DBID</b> <i>dbid</i>
$\left\{ \begin{array}{l} \text{FNR } \mathit{fnr} \text{ [CIPHER } \mathit{cipher} \text{ ]} \\ \text{FMFNR } \mathit{fnr-start} \text{ TOFNR } \mathit{fnr-end} \end{array} \right\} \left[ \left\{ \begin{array}{l} \text{PASSWORD} \\ \text{PSW} \end{array} \right\} \mathit{password} \right]$

**Keyword Explanation - FDT Selection**

The keywords and valid values for the FDTs to be processed are described below:

<b>Keyword</b>	<b>Valid Values</b>	<b>Default Value</b>
DBID	The database ID (DBID) of the FDT.	none
FNR	The file number (FNR) 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
PSW		
FMFNR	Only applies to the FIND or UNLOAD command.  A start value: The file number (FNR) of an FDT.	none
TOFNR	Only applies to the FIND or UNLOAD command.  An end value: The file number (FNR) of an FDT.	none