

# Object Specification - Natural Library Objects

This section describes the options provided on the object-specification screens for processing Natural library objects. Natural library objects are programming objects (including Natural DDMs), user-defined error messages and shared resources.

For descriptions of keywords and valid input values, see also *select-clause* in the section *Direct Commands*.

This section covers the following topics:

- Natural Library Objects
- Natural Library Object Details
- Natural Library Object Properties
- Natural Library Object Exceptions
- Natural Library Object Exception Properties

## Natural Library Objects

The screen **Unload/Load/Scan Natural Library Objects** provides the following fields and PF keys:

Field	PF Key	Explanation
<b>DBID/FNR</b>		Only applies to the unload function.  The database ID (DBID) and file number (FNR) of the system file where the Natural libraries are stored. If no values (or 0) are specified, the current FUSER or FNAT system file is used.
<b>Select DBID/FNR</b>	PF5  (advanced-user mode only)	Only applies to the unload function.  Displays a selection list of system files available.
<b>Library</b>		The name of a library or a range of names: see <i>Name</i> in <i>Name, Date and Time Specification</i> .
<b>Select library</b>	PF4	Displays a selection list of all libraries available. See also <i>Select Library</i> .
<b>Object name</b>		The name of a Natural programming object or shared resource or a range of names: see <i>Name</i> .  Only evaluated if the fields <b>Natural programming objects</b> (default setting) and/or <b>Shared resources</b> are selected on the screen <b>Natural Library Objects, Details</b> . See also <i>Natural Library Object Details</i> .

Field	PF Key	Explanation
<b>Select objects</b>		Only applies to the unload function in advanced-user mode.  If no library range is specified, a selection list of all Natural objects available is displayed (see also <i>Select Objects</i> ).
<b>Error number from/to</b>		A valid range (1 - 9999) of user-defined error messages delimited by the first and the last message number.  Only evaluated if the field <b>Error messages</b> (default setting) is selected on the screen <b>Natural Library Objects, Details</b> (see also <i>Natural Library Object Details</i> ).
<b>Details</b>	PF6	Invokes the screen <b>Natural Library Objects, Details</b> where you can enter more detailed object specifications. See <i>Natural Library Object Details</i> .
<b>Settings</b>	PF7	Only applies to functions executed in advanced-user mode.  Invokes the <b>Unload/Load/Scan Settings</b> screen where you can specify option and parameter settings: see <i>Settings</i> .
<b>Work file</b>	PF11	The name of the work file to be used for the function.  If the name exceeds the space available, choose PF11 (WorkF) and enter a longer name of up to 253 characters. Alternatively, position the cursor at this field and choose PF1 (Help).
	PF1	See also <i>Work Files</i> .

## Natural Library Object Details

The screen **Unload/Load/Scan Natural Library Objects, Details** is used to specify further selection criteria for Natural library objects.

For descriptions of keywords and valid input values, see also *select-clause* in the section *Direct Commands*.

The screen **Unload/Load/Scan Natural Library Objects, Details** provides the following fields and PF keys:

Field	PF Key	Explanation
<b>Library</b>		The name of a library or a range of names: see <i>Name in Name, Date and Time Specification</i> .  Ranges are not allowed if the <b>Use Predict set</b> option is selected.
<b>Select (Library)</b>	PF4	Displays a selection list of all libraries available. See also <i>Select Library</i> .
<b>DBID/FNR</b>		See <b>DBID/FNR</b> in <i>Natural Library Objects</i> above.

Field	PF Key	Explanation
Object Types: <b>Natural programming objects</b>		Natural programming objects including Natural DDMs (data definition modules).  If the FDDM system file has been activated, see also <b>Use FDDM file for processing DDMs</b> in the section <i>Settings</i> .
Object Types: <b>Error messages</b>		User-defined error messages.
Object Types: <b>Shared resources</b>		Any non-Natural file that is used in a Natural environment and is maintained in the Natural library system.  Note that shared resources are not defined in remote environments located on mainframe platforms.
<b>Object name</b>		See <b>Object name</b> in <i>Natural Library Objects</i> above.
<b>Use Predict set</b>		Only applies to the unload and find functions and if Predict is installed.  This option is used to read the names of the objects to be processed from a retained set. A retained set is created with the save set option of the LIST XREF command.  If the <b>Use Predict set</b> option is selected, the following applies: <ul style="list-style-type: none"> <li>● The <b>Object name</b> field must contain asterisk (*) indicating all objects. This is the default setting.</li> <li>● The <b>Library</b> field must contain the name of a single library. Name ranges are not allowed.</li> <li>● The <b>Set number</b> field must be filled.</li> </ul> For detailed information on Predict sets, refer to the <i>Predict</i> documentation.
<b>Set number</b>		Only applies if <b>Use Predict set</b> is selected.  A one- or two-digit number that identifies the retained set to be used.
<b>Set library</b>		Only applies if <b>Use Predict set</b> is selected.  The name of the library to be searched for a Predict set. If you do not specify a name, the library entered in the <b>Library</b> field is used by default.
<b>Set user</b>		Only applies if <b>Use Predict set</b> is selected.  The ID of the user who created the retained set. If no ID is entered, the ID specified with the system variable *USER (see the <i>System Variables</i> documentation) is used.

Field	PF Key	Explanation
Programming Object Options: <b>S/C-Kind</b>		<p>The kind of Natural programming object:</p> <p>S            Source objects only.</p> <p>C            Cataloged objects only.</p> <p>A or *       All source objects and/or cataloged objects. This is the default setting.</p> <p>W            All STOWed objects: source and cataloged objects with identical date and time.</p> <p>B            Both source and cataloged objects if both exist.</p> <p><b>Note:</b> W and B are valid for the unload function only. Though W and B can also be entered for the load or scan function, they are treated like A.</p>
Programming Object Options: <b>Natural types</b>		A Natural object-type code such as P for program. For a list of valid codes, see NATTYPE in the section <i>select-clause</i> .
<b>Select Natural types</b>	PF6	Invokes a window where you can select one or more types of Natural object.
<b>Properties</b>	PF7	Invokes an extra screen where you can specify additional properties of Natural programming objects: see <i>Natural Library Object Properties</i> .
Error Messages: <b>Error number from/to</b>		A range of user-defined error messages as entered in the <b>Error number from/to</b> fields (see <i>Natural Library Objects</i> above).
Error Messages: <b>Language codes</b>		<p>Up to 8 valid language codes (for example, code 1 for English) of the specified error messages.</p> <p>An asterisk (*) selects all language codes.</p>

Field	PF Key	Explanation
Error Messages: <b>S/L-Kind</b>		The kind of error message text:  S Short text. L Long text. A Short and/or long text. This is the default. B Short and long texts if both exist (unload function only).
<b>Exceptions</b>	PF8	Invokes an extra screen where you can specify exceptions to the selection of Natural programming objects: see <i>Natural Library Object Exceptions</i> .

## Natural Library Object Properties

The screen **Unload/Load/Scan Library Objects, Properties** is used to specify properties for the Natural library objects selected for processing.

For descriptions of keywords and valid input values, see also *select-clause* in the section *Direct Commands*.

The screen **Unload/Load/Scan Library Objects, Properties** provides the following fields:

Field	Explanation
<b>User ID</b>	The ID of the user who saved or cataloged a Natural programming object. Specify a single user ID or a range of user IDs: see <i>Name</i> in <i>Name, Date and Time Specification</i> .
<b>Programming mode</b>	The programming mode of the Natural programming objects:  R Reporting mode only. S Structured mode only. A No mode check performed. This is the default setting.
<b>Natural version</b>	The Natural version of the Natural programming objects.  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> .

Field	Explanation
<b>DDM DBID</b>	The database ID (DBID) of the data definition modules (DDMs).  Valid entries are: 1 to 65535 or 0 (all DBIDs)
<b>DDM FNR</b>	The file number (FNR) of the DDMs:  Valid entries are: 1 to 65535 or 0 (all FNRs).
Object Date: <b>Select all objects (no date check)</b>	Selects all objects, regardless of their date.
Object Date: <b>Select objects modified between/and</b>	Selects all objects with a save or catalog date and/or time within the range specified in these fields by entering a precise start date and/or time and/or an end date and/or time.  For valid input values, see <i>Date</i> and <i>Time</i> in <i>Name, Date and Time Specification</i> . Special dates allowed are: TODAY, YESTERDAY, MONTH and YEAR.
Object Date: <b>Select objects modified on</b>	Selects all objects with a save or catalog date and/or time that fits the date/time specified in these fields by entering a precise date and/or time.  For valid input values, see <i>Date</i> and <i>Time</i> . Special dates allowed are: TODAY and YESTERDAY.
Object Size: <b>Select all objects (no size check)</b>	Selects all objects, regardless of their size.
Object Size: <b>Select objects with size between/and</b>	Selects all objects with a size within the range specified in these fields by entering a start size and/or an end size.
Object Size: <b>Select objects with size</b>	Selects all objects with a size that fits the size specified in this field.

## Natural Library Object Exceptions

The screen **Unload/Load/Scan Library Objects, Exceptions** is used to specify exceptions to the selection of Natural library objects.

All objects that match the selection criteria specified in *Natural Library Objects*, *Natural Library Object Details* and *Natural Library Object Properties* are checked against the specifications made on the screen **Unload/Load/Scan Library Objects, Exceptions**. Objects that match *all* specifications defined as exceptions, are exempted from processing.

For descriptions of keywords and valid input values, see also *select-clause* in the section *Direct Commands*.

The screen **Unload/Load/Scan Library Objects, Exceptions** is basically identical to the screen **Unload/Load/Scan Natural Library Objects, Details**. See the relevant section for explanations of the fields, commands and alternative PF keys listed in the table below. The field **Add/change properties for selection** is used to specify additional properties for Natural programming object exceptions: see *Natural Library Object Exception Properties*.

Field	PF Key
<b>Library</b>	PF4
<b>Select</b> (Library)	
Object Types: <b>Natural programming objects</b> <b>Error messages</b> <b>Shared resources</b>	
<b>Object name</b>	
<b>S/C-Kind</b>	
<b>Natural types</b>	
<b>Select Natural types</b>	PF6
<b>Properties</b>	PF7
<b>Error number</b>	
<b>S/L-Kind</b>	
<b>Languages</b>	

## Natural Library Object Exception Properties

The screen **Unload/Load/Scan Library Objects, Exceptions** is used to specify exceptions to the properties of the Natural library objects selected for processing.

The screen provides the following fields:

Field	Explanation
<b>User ID</b>	See <b>User ID</b> in <i>Natural Library Object Properties</i> .
<b>Programming mode</b>	See <b>Programming mode</b> in <i>Natural Library Object Properties</i> .
<b>Natural version</b>	See <b>Natural version</b> in <i>Natural Library Object Properties</i> .
<b>DDM DBID</b>	See <b>DDM DBID</b> in <i>Natural Library Object Properties</i> .
<b>DDM FNR</b>	See <b>DDM FNR</b> in <i>Natural Library Object Properties</i> .
Object Date: <b>Ignore object date</b>	Performs no date check. Objects are processed, regardless of their date.
Object Date: <b>Exclude objects modified between/and</b>	Exempts from processing all objects with a save or catalog date and/or time within the range specified in these fields by entering a precise start date and/or time and/or an end date and/or time.  For valid input values, see <i>Date</i> and <i>Time</i> in <i>Name, Date and Time Specification</i> . Special dates allowed are: TODAY, YESTERDAY, MONTH and YEAR.
Object Date: <b>Exclude objects modified on</b>	Exempts from processing all objects with a save or catalog date and/or time that fits the date/time specified in these fields by entering a precise date and/or time.  For valid input values, see <i>Date</i> and <i>Time</i> . Special dates allowed are: TODAY and YESTERDAY.
Object Size: <b>Ignore object size</b>	Performs no size check. Objects are processed, regardless of their size.
Object Size: <b>Exclude objects with size between/and</b>	Exempts from processing all objects with a size within the range specified in these fields by entering a start size and/or an end size.
Object Size: <b>Exclude objects with size</b>	Exempts from processing all objects with a size that fits the size specified in this field.