

SYSMAIN Functions and Function Processing

The SYSMAIN functions are executed from menu screens (in menu-driven mode) by entering either an appropriate function code on the menu or direct commands in the command line, or in batch mode with direct commands. Object selection criteria are specified using parameters and keywords.

This section covers the following topics:

- Commands
 - Function Processing
-

Commands

Command	Explanation
COPY	<p>This command copies an object from a source environment to a target environment. The object remains unchanged in the source environment.</p> <p>If the target environment already contains an object with the same name (or in the case of an error message, the same number) as the object to be copied, the specified object is not copied. The REPLACE parameter can be used to overwrite the object in the target environment.</p>
DELETE	<p>This command deletes an object from a source environment.</p> <p>If a class is to be deleted, the system command UNREGISTER is carried out for this class. The class is not deleted if an error occurs in the COM environment.</p> <p>Note: If a DDM is deleted with SYSMAIN, the corresponding Natural Security file profile is also deleted.</p>
FIND	<p>This command locates a specific programming object or error message in a source environment. During online processing, a window showing the library currently being searched is displayed.</p>
LIST	<p>This command displays a range of objects within a range of libraries in a source environment.</p>
MOVE	<p>This command transfers objects from a source environment to a target environment. The object is deleted from the source environment and added to the target environment.</p> <p>If the target environment already contains an object with the same name (or in the case of an error message, the same number) as the object to be moved, the specified object is not moved.</p> <p>If a class is to be transferred, the system command UNREGISTER is carried out for this class. The class is not transferred if an error occurs in the COM environment.</p> <p>The REPLACE parameter can be used to overwrite the object in the target environment.</p>
RENAME	<p>This command gives an object a new name using one of the following two options:</p> <ol style="list-style-type: none"> 1. Rename the object in the source environment. 2. Rename the object and transfer it to another (that is, target) environment. <p>The RENAME function deletes the original object in the source environment; therefore, you are prompted with an option to retain the original object (if the original object is to be retained, it is not modified).</p> <p>If the target environment already contains an object with the same name (or in the case of an error message, the same number) as the object to be renamed, the specified object is not renamed. The REPLACE parameter can be used to overwrite the object in the target environment.</p> <p>Only a single programming object, environment, profile or rule can be renamed using automated processing. If a range of programming objects, environments, profiles or rules is to be renamed, selective processing must be used. A range of error messages can be renamed with automated processing.</p>
HELP	<p>General help information on the SYSMAIN utility is displayed if you enter a question mark (?) in the Code field of any menu.</p> <p>You can obtain field-specific help by placing the cursor in the field in question and pressing PF1 or entering the appropriate help character in the field in question and pressing ENTER.</p>
EXIT	<p>This command terminates the SYSMAIN utility.</p> <p>PF3 and CLEAR also terminate SYSMAIN if they are pressed when the SYSMAIN Main Menu is displayed; however if they are pressed when any other SYSMAIN menu is displayed, the main menu is displayed.</p>

Function Processing

When operating in menu-driven mode, an object and function are selected from the SYSMAIN Main Menu.

```

14:19:40          ***** NATURAL SYSMAIN UTILITY *****          1999-12-01
User SAG              - Main Menu -                               Library SYSMAIN

      Code  Object                                     Code  Function

      A   Programming Objects                          C   Copy
      D   Debug Environments                           D   Delete
      E   Error Message Texts                         F   Find
      P   Profiles                                     L   List
      R   Rules                                       M   Move
      S   DL/I Subfiles                               R   Rename
      V   DDMS                                       ?   Help
      ?   Help                                       .   Exit
      .   Exit

Object Code .. A          Function Code .. _

Command ===>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Menu Exit Copy Del Find List Move Ren
    
```

An appropriate subfunction menu is then displayed (see the example below for the copy function for programming objects).

The fields contained on the subfunction menus correspond to SYSMAIN parameters; see SYSMAIN Parameters and Keywords.

```

18:47:52          ***** NATURAL SYSMAIN UTILITY *****          1999-11-18
User SAG          - Copy Programming Objects -          Library SYSMAIN

                Code  Function
                A    Copy All/Individual Objects
                C    Copy only Cataloged Objects
                S    Copy only Saved Objects
                W    Copy only Stowed Objects
                ?    Help
                .    Exit

                Code ..... A          Sel. List ... Y
Object Name ..... *_____          Type ..... _____
                Set Number .. ___          XREF .. N
Source Library ... OLDLIB__          Database .... 10___          File .. 50___
Target Library ... NEWLIB__          Database .... 10___          File .. 60___
Options Replace ... N          Criteria .... N

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Menu Exit Copy Del Find List Move Ren Fsec Fdic Fnat
    
```

Two other fields contained on the subfunction menus are the command line and Sel. List (selection list).

Command Line

In the command line, you can enter one of the following:

- A direct command for processing a SYSMAIN function.
- A special command to the SYSMAIN utility. This command can be preceded by SET (see Commands Issued to SYSMAIN) or by a reserved command.
- A Natural system command. If the command is not uniquely identifiable as a Natural system command, it should be preceded by two slashes (//) to ensure the correct response from SYSMAIN.

Selection List

The Selection List determines which type of processing is to occur in menu-driven mode:

Y	A Selection List is displayed containing all objects which meet the specified selection criteria. You can select objects to be processed (see Selective Processing). Y is the default.
N	Objects are processed automatically, without display of an intervening Selection List (see Automated Processing).

Once the required object and SYSMAIN function have been selected, you specify the values of the various parameters.

Selective Processing

Selective processing is an online facility which displays a selection list listing all objects meeting the specified selection criteria.

- **Menu-driven mode**
Selective processing is the default type of processing when operating in menu-driven mode (it can be deactivated by entering an **N** in the Sel. List field of the menu).
- **Direct command mode**
To activate selective processing in direct command mode, either include the keyword **HELP** in the *with-clause* of the direct command or enter a question mark (?) as the final character of the object name; see Direct Commands.

You can then select objects from the selection list for processing. The status of each object (for example, Moved, Copied, Renamed, Not Replaced, etc.) is displayed in the Message column after it has been processed.

Specific details for processing each type of object are discussed in subsequent sections of this section.

Online report mode can be used to obtain the SYSMAIN Batch Report online; that is, a list of the objects that were affected by a SYSMAIN function being executed and of the actions performed on each of these objects (see also the appropriate sections on the processing of Natural objects in batch mode later in this section).

If the command BATCH (or BAT) is entered on the command line, SYSMAIN processes the request as if in batch mode. Hence, only the result of each action is present in a report type format. This form of processing also allows you to use the %H terminal command, with which you can obtain a hardcopy of the report (if required).

The functions DELETE and MOVE always delete objects in the source environment. Therefore, during online automated processing, a special confirmation screen is displayed, which gives you the option of continuing or terminating the function.

If the Replace parameter has been set to **Y**, you are given the opportunity to confirm every replace operation **before** it is done. A window is displayed, and you can choose to:

- replace the object indicated,
- not replace the object indicated (default),
- terminate the processing of the function by either entering a period (.) or pressing PF3.

If the target environment already contains an object with the same name as the object to be copied, moved or renamed, the specified object is not processed and processing continues with the next object. The REPLACE parameter can be used to override this feature.

The status of individual objects is not displayed, but an appropriate SYSMAIN message is displayed upon completion of processing. However, if the following message is displayed, it indicates that some objects were not processed:

NAT4893 NORMAL END BUT SOME DATA WERE REJECTED

Error message NAT4810 (see the section Data Rejected) lists reasons why an object may not have been processed. Additional reasons for an object not to be processed are discussed in specific sections relevant to each object type.

Batch mode or selective processing should be used if it is necessary to see the status of each object after it is processed.

Enhanced Selection Criteria

When you select programming objects to be processed by SYSMAIN, in addition to the selection criteria already available, you can also select objects by the date/time, user ID and terminal ID related to their saving or cataloging. For example, you can select only those objects that were cataloged on a specific day between 8:00 and 12:00 by a specific user on a specific terminal, which means that the processing of objects according to the selection criteria is based on all selected criteria as a whole, not on each condition.

When you enter **Y** in the Criteria field in any screen for programming objects, a window is provided where you can enter your additional selection criteria.

```

18:49:47          ***** NATURAL SYSMAIN UTILITY *****          1999-11-18
User SAG          - Copy Programming Objects -          Library SYSMAIN
+-----+
!      --- Additional Criteria ---      !
!                                       !
! Object Type ..... _____      !
! Date/Time From .. _____      !
! Date/Time To ... _____      !
! User ID ..... _____      !
! Terminal ID ..... _____      !
!                                       !
! Command ==>                          !
!                                       !
Code .. !
Object Name .. +-----+
                Set Number .. __ XREF .. N
Source Library ... OLDLIB__ Database .... 10__ File .. 32__
Target Library ... NEWLIB__ Database .... 10__ File .. 32__
Options Replace ... N      + Criteria .... y

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Menu Exit Copy Del Find List Move Ren Fsec Fdic Fnat
    
```

Note:

A plus character (+) in front of the Criteria indicates that additional criteria have been specified already.