Functions

You invoke a SYSERR utility function by entering the code that corresponds to the required function and one or more parameters in the input fields of the SYSERR main menu. This section describes the functions provided in the menu and the parameters that can be specified for each function. For general instructions on the use of parameters, see the section *Parameters*.

- Adding Messages

- Deleting Messages

- Displaying Messages

- Modifying Messages

- Printing Messages

- Scanning Messages

- Selecting Messages from a List

- Translating Messages into other Languages

Adding Messages

▶ **To add new messages**

1. If you want to prevent lower- to upper-case translation for the messages to be created, enter the following terminal command:

   ```
   %L
   ```

   Any lower-case characters you type when adding message text, will then *not* be converted to upper-case characters for the duration of the current Natural session.

   For detailed information on `%L`, see the *Terminal Commands* documentation.

2. Invoke the SYSERR main menu and enter the following values:

Field	Input Value
Code	AD
Message type	NS Natural system short messages NL Natural system long messages US User-defined short messages UL User-defined long messages A long message can only be added if the corresponding short message already exists, as the long message is intended to be an explanation of the short message.
Library	Any existing Natural library.
Message number	Two numbers of up to four digits corresponding to the first and last numbers of the range of messages to be added. If you only want to add one message, either enter the number of the new message in the left **Message number** field and clear the right field, or enter the number in both fields.
Language codes	The code of the language for which the message is to be added. If the message type is NS or NL, the language code must be 1 for English. For other message types, the first language code entered in the field is used; all others are ignored.

3. Press ENTER.

An **Add Short Message** screen similar to the example below is displayed:

```
15:53:03                   ***** NATURAL SYSERR UTILITY *****                2008-11-28
                               - Add Short Message -

Number         Short Message (Language code=1)
-----------    ------------------------------------------------------------------
SYSERR1004
                ....+....1....+....2....+....3....+....4....+....5....+..

Sample ...... Message sample number 0000












Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Add             Exit                              -       +                 Canc
```

The **Number** field indicates the message number (in the example above, 1004), which is prefixed with the library ID (in the example above, SYSERR).

4. In the input line next to the message number, type in a short message text and press ENTER.

Or:

If the line labeled **Sample** contains a sample message text as shown in the example above, copy this text into the input line by entering .C and then pressing ENTER. If the sample message text contains the string 0000, this string is replaced by the new message number as illustrated in the following example:

```
15:57:14              ***** NATURAL SYSERR UTILITY *****              2008-11-28
                          - Add Short Message -

Number        Short Message (Language code=1)
------------  ------------------------------------------------------------------
SYSERR1004    Message sample number 1004
              ....+....1....+....2....+....3....+....4....+....5....+..

Sample ...... Message sample number 0000




Message has been added.

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Mod            Exit                   -      +    Long               Canc
```

For instructions on creating a sample message, see the SAMPLE command described in *Direct Commands*.

5. Press PF9 to add a corresponding long message text.

An **Add Long Message** screen similar to the example below appears:

```
11:21:59             - Add Long Message SYSERR1004 Language 1 -          2003-09-16
 1 Tx. Message sample number 1004
 2    .
 3    .
 4 Ex. .
 5    .
 6    .
 7    .
 8    .
 9    .
10    .
11    .
12    .
13    .
14    .
15    .
16    .
17    .
18 Ac. .
19    .
20    .


Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Add              Exit                      -      +         Copy        Canc
```

6. Enter text in the three input areas: **Tx.** (text), **Ex.** (explanation) and **Ac.** (action).

7. Press ENTER to save the long message.

8. Press PF9 to return to the short message or to add the next short message in ascending order if you selected a range of message numbers.

9. Press PF3 or PF12 to return to the SYSERR main menu.

   Or:
   Press PF8 or PF7 to add the next short message in ascending or descending order if you selected a range of message numbers.

Deleting Messages

▶ **To delete messages**

● In the fields of the SYSERR main menu, enter the following values:

Field	Input Value
Code	DE
Message type	NS Natural system short messages NL Natural system long messages US User-defined short messages UL User-defined long messages It is possible to delete a long message without deleting the corresponding short message, but not vice versa. If you try to delete a short message for which a long message exists, you are asked to confirm the deletion of both.
Library	Any existing Natural library.
Message number	Two numbers of up to four digits corresponding to the first and last numbers of the range of messages to be deleted.
Language codes	The code(s) of the language(s) in which the messages are to be deleted. To indicate that the messages specified are to be deleted in all languages available, enter an asterisk (*).

Displaying Messages

▶ **To display messages**

1. In the fields of the SYSERR main menu, enter the following values:

Field	Input Value
Code	DI
Message type	NS Natural system short messages NL Natural system long messages US User-defined short messages UL User-defined long messages
Library	Any existing Natural library.
Message number	Two numbers of up to four digits corresponding to the first and last numbers of the range of messages to be displayed.
Language codes	The code of the language in which the messages are to be displayed. Only one language code is accepted. If more than one code is specified, only the first one is used; all others are ignored.

2. Press ENTER.

For short messages, a **Display Short Messages** screen similar to the example below appears:

```
15:41:11                 ***** NATURAL SYSERR UTILITY *****                 2008-11-28
                          - Display Short Messages -

Number          Short Message (English)
------------    -------------------------------------------------------------------
NAT0001         Missing/invalid syntax; undefined variable name/keyword.
NAT0002         No file is available with specified name or number.
NAT0003         Invalid character string for file name or file number.
NAT0004         DEFINE DATA must be the first statement if present.
NAT0005         Closing parenthesis missing in arithm/logical expression.
NAT0006         ESCAPE statement used when no processing loop active.
NAT0007         Invalid THRU or TO clause in READ LOGICAL or HISTOGRAM.

















Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
 +              Exit                                      +                    Canc
```

Press PF8 to page forwards.

For long messages, the **Display Long Message** screen is displayed where the messages are displayed one after another by pressing PF8 to page forwards or PF7 to page backwards. The **Display Long Message** screen is similar to the **Modify Long Message** screen shown in *Modifying Messages*.

Modifying Messages

▶ **To modify messages**

1. If you want to prevent lower- to upper-case translation for the messages to be modified, enter the following terminal command:

```
%L
```

Any lower-case characters you type when editing message text, will then *not* be converted to upper-case characters for the duration of the current Natural session.

For detailed information on %L, see the *Terminal Commands* documentation.

2. In the fields of the SYSERR main menu, enter the following values:

Field	Input Value
Code	MO
Message type	NS Natural system short messages NL Natural system long messages US User-defined short messages UL User-defined long messages
Library	Any existing Natural library.
Message number	Two numbers of up to four digits corresponding to the first and last numbers of the range of messages to be modified.
Language codes	The code of the language in which the messages are to be modified. Only one language code is accepted. If more than one code is specified, only the first one is used; all others are ignored.

3. Press ENTER.

    A **Modify Short Message** screen similar to the example below is displayed:

```
18:52:33                    ***** NATURAL SYSERR UTILITY *****              2003-09-16
                                  - Modify Short Message -


Number          Short Message (English)
------------    -----------------------------------------------------------------
SYSERR1004      Message sample number 1004
                ....+....1....+....2....+....3....+....4....+....5....+..


 1 Tx. Input missing.
 2     .
 3     .
 4 Ex. Input value missing in field XYZ.
 5     Enter an alphanumeric value.
 6     .
 7     .
 8     .
18 Ac. Enter value in field XYZ.
19     .
20     .

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Mod            Exit                      -     +           Copy        Canc
```

For reference purposes, the long message is displayed in the bottom half of the screen.

When you modify long messages, the **Modify Long Message** screen is displayed:

```
18:54:02      - Modify Long Message SYSERR1004 (English) -        2003-09-16
 1 Tx. Input missing.
 2     .
 3     .
 4 Ex. Input value missing in field XYZ.
 5     Enter an alphanumeric value.
 6     .
 7     .
 8     .
 9     .
10     .
11     .
12     .
13     .
14     .
15     .
16     .
17     .
18 Ac. Enter value in field XYZ.
19     .
20     .

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Mod             Exit                      -      +            Copy         Canc
```

4. Press ENTER to save any modifications.

5. Press PF8 or PF7 to modify the next message in ascending or descending order if you selected a range of numbers.

Printing Messages

▶ **To print messages**

1. In the fields of the SYSERR main menu, enter the following values:

Field	Input Value
Code	PR
Message type	NS Natural system short messages NL Natural system long messages US User-defined short messages UL User-defined long messages
Library	Any existing Natural library.
Message number	Two numbers of up to four digits corresponding to the first and last numbers of the range of messages to be printed.
Language codes	The code of the language in which the messages are to be printed. Only one language code is accepted. If more than one code is specified, only the first one is used; all others are ignored.

2. Press ENTER.

   A print window similar to the example below opens:

```
+------Print Natural System Messages-------+
!                                          !
!   Language code .... 1                   !
!                                          !
!   Long texts, too .. N                   !
!   Message number ... 1___ -  25          !
!   Lines per page ... 60_                  !
!   Left margin ...... 10                   !
!   Top margin ....... 0_                    !
!   Bottom margin .... 0_                    !
!   Printer ID ....... PRT1____             !
!                                          !
!                                          !
!                                          !
+------------------------------------------+
```

3. Specify the options provided in the print window and the logical printer name.

   See the DEFINE PRINTER statement in the *Natural Statements* documentation for details on logical printer names.

4. Press ENTER to output the selected messages on a printer.

▶ **To print all Natural system messages**

● In the fields of the SYSERR main menu, enter the following values:

   ○ Code PR,

   ○ Message type NS or NL,

   ○ Message number range 1 - 9999,

   ○ Language code 1 (English) or 2 (German).

   A library ID is not required and possible entries are ignored.

Scanning Messages

This function is used to scan messages for a specific string of characters. Only short messages can be scanned.

▶ **To scan messages**

1. In the fields of the SYSERR main menu, enter the following values:

Field	Input Value
Code	SC
Message type	NS Natural system short messages US User-defined short messages
Library	Any existing Natural library.
Message number	Two numbers of up to four digits corresponding to the first and last numbers of the range of messages to be scanned.
Language codes	Specify a maximum of nine language codes from the ranges 1 - 9, A - Z and a - y, or enter an asterisk (*) for all languages.

2. Press ENTER.

   A scan window similar to the example below opens:

```
+---------------------------------------+
|                                       |
|   Scan value(s)        Or/And/Not     |
|   ---------------       ----------     |
|   _____          OR_        |
|   _____                     |
|   _____                     |
|   _____                     |
|                                       |
|   Absolute ..... X                     |
|   Immediate .... _                     |
|                                       |
+---------------------------------------+
```

   In the fields provided, you can specify the search criteria to be used for scanning:

Scan value(s)	In the four empty fields, enter up to four character strings to be searched for. The scan finds the specified terms in both upper and lower case.
Or/And/Not	You can perform a Boolean search query by entering one of the following operators: OR Searches for one or more of the character strings entered in **Scan value(s)**. This is the default setting. AND Searches for all of the character strings entered in **Scan value(s)**. NOT Searches for none of the character strings entered in **Scan value(s)**. The operator is ignored if you only fill one of the **Scan value(s)** fields.
Absolute	If you mark this field, the string of characters is found even if it is part of a word. For example, if you scan for the value meter, the search would also find words such as parameter and millimeter. If you remove the mark, the search is restricted to match entire words only.
Immediate	If you mark this field, messages are displayed individually, one after another. Otherwise, a list of messages is displayed after the search is completed. If you specify more than one language or an asterisk (*) in the **Language codes** field, **Immediate** must be marked.

3. Specify search criteria as shown in the following example:

```
+------------------------------------+
!    Scan value(s)        Or/And/Not    !
!    ----------------     ----------    !
!    BUFFER_____        AND        !
!    POOL_____                   !
!    _____                    !
!    _____                    !
!                                        !
!    Absolute ..... X                    !
!    Immediate .... _                    !
!                                        !
+------------------------------------+
```

In the example above, the scan finds all short messages that contain both the words buffer and pool.

4. Press ENTER.

All messages to which the specified search criteria apply are listed on the screen as shown in the following example:

```
11:32:27                ***** NATURAL SYSERR UTILITY *****              2008-11-28
                           - Scan in Short Messages -

Number          Short Message (English)
-------------   ------------------------------------------------------------------
NAT0777         Buffer pool full.

















End of scan reached.


Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
+              Exit                                  +         Crit        Canc
```

The word in which the search string is found is highlighted.

From this screen, you can display the search criteria used for the current scan by pressing PF10.

Selecting Messages from a List

This function is used to display a range of messages and select single ones for further processing. Only short messages can be displayed.

▶ **To select messages**

1. In the fields of the SYSERR main menu, enter the following values:

Field	Input Value
Code	SE
Message type	NS Natural system short messages US User-defined short messages
Library	Any existing Natural library. If an asterisk (*) is appended to the library ID, a list of all libraries available is displayed for selection.
Message number	Two numbers of up to four digits corresponding to the first and last numbers of the range of messages to be displayed for selection.
Language codes	The code of the language in which the messages are to be displayed. If more than one code is specified, only the short message text of the first one is displayed. Enter an asterisk (*) to display the languages available for each message.

2. Press ENTER.

   A **Select Messages** screen similar to the example below is displayed:

```
17:08:13              ***** NATURAL SYSERR UTILITY *****              2008-11-28
                            - Select Messages -
                                                               Languages
Se Number          Short Message (English)                     short    long
-- ------------    -------------------------------------------- --------- ----
__ NAT0001         Missing/invalid syntax; undefined variable name/ 1          1
__ NAT0002         No file is available with specified name or numb 1          1
__ NAT0003         Invalid character string for file name or file n 1          1
__ NAT0004         DEFINE DATA must be the first statement if prese 1          1
__ NAT0005         Closing parenthesis missing in arithm/logical ex 1          1
__ NAT0006         ESCAPE statement used when no processing loop ac 1          1
__ NAT0007         Invalid THRU or TO clause in READ LOGICAL or HIS 1          1
__ NAT0008         Invalid search syntax.                           1          1
__ NAT0009         Invalid relational operator in a relational expr 1          1
__ NAT0010         Error in value specification in a relational exp 1          1
__
__
__
__
__
__
__




Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help      Exit                              +                      Canc
```

3. In the **Se** column, enter one of the following line commands:

Command	Explanation
DE	Deletes the message.
DI	Converts the **Select Messages** screen to the **Display Short Messages** screen shown in *Displaying Messages*. Additionally, places the message selected with this command at the top of the list and reduces the number of messages displayed as described for `.X`.
LA	Shows the codes of the languages for which translations exist.
MO	Modifies the message.
PR	Outputs the message on a printer.
SH	Displays the short message. This command is only available if an asterisk (*) has been entered in the **Language codes** field of the SYSERR main menu.
TR	Translates the message into another language.
.X	Defines a shorter message range by placing a selected message at the top of the list and thus reducing the number of messages displayed: The message selected with this command is placed at the top of the list and any messages that were listed above this message are removed from the display. The message range in the SYSERR main menu is reset accordingly and starts with the message selected here on the **Select Messages** screen.
.Y	Defines a shorter message range by listing messages only up to a selected message: All messages that were listed below the message selected with this command are removed from the display. The message range in the SYSERR main menu is reset accordingly and ends with the message selected here on the **Select Messages** screen.

4. Press ENTER to continue.

Translating Messages into other Languages

This function is used to translate short messages from one language to one or more other languages. To translate long messages into other languages, proceed as described in *Adding Messages*.

▶ **To translate short messages**

1. In the fields of the SYSERR main menu, enter the following values:

Field	Input Value
Code	TR
Message type	NS Natural system short messages
	US User-defined short messages
Library	Any existing Natural library.
Message number	Two numbers of up to four digits corresponding to the first and last numbers of the range of messages to be displayed for selection.
Language codes	Specify a maximum of nine language codes. The language codes are single alphanumeric characters in the ranges 1 - 9, A - Z and a - y.

2. Press ENTER.

A **Translate Short Message** screen similar to the example below appears:

```
13:42:31              ***** NATURAL SYSERR UTILITY *****              2009-01-16
                          - Translate Short Message -

Number ...... SYSERR0001
Languages ... 1..45.........................................................


------------ ....+....1....+....2....+....3....+....4....+....5....+..
English       Short message English (1)_____
German        _____
French        _____
Spanish       Short message Spanish (4)_____
Italian       Short message Italian (5)_____
              _____
              _____
              _____
              _____
------------ ....+....1....+....2....+....3....+....4....+....5....+..

 1 Short message English (1)
 4 Explanation: English long message
18 Action: English long message

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Mod   Help        Exit                      -     +          Opts        Canc
```

The **Languages** field displays the language codes in which the message already exists (in the example above: 1, 4 and 5).

The section below **Number** and **Languages** lists all languages for which a language code was entered earlier in the **Language codes** field of the SYSERR main menu (in the example above: 1, 2, 3, 4, 5). English (1), Spanish (4) and Italian (5) translations already exist whereas new translations can be entered for German (2) and French (3).

For reference purposes, the bottom section of the screen displays three lines of the long message that corresponds to the language that is listed first in the languages/short messages section (in the example above, English). Lines 1, 4 and 18 are displayed by default. You can display any other line of the long message by overwriting any of the three line numbers (**1**, **4** or **18**) with another line

number and pressing ENTER.

3. Enter the translation in the input line next to the new language specified.

4. Press ENTER.

▶ **To modify translations of short messages**

1. On the **Translate Short Message** screen, press PF10.

    An **Options** window similar to the example below opens:

```
+----------------------- Options -----------------------+
!                                                       !
!   Modification of all fields allowed ....... N        !
!                                                       !
!   Currently recognized language codes ...... 123456789   !
!                                                       !
+-------------------------------------------------------+
```

2. In the upper field, replace N (default) by Y and enter the required language code(s) in the lower field.
    You can specify up to nine new language codes for translation.

▶ **To copy a translation into an empty input line**

1. On the **Translate Short Message** screen, enter .C in the first two positions of an empty line.

2. Place the cursor anywhere in the line of a short message that already exists for another language.
    (You can only copy text that appears in display mode.)

3. Press ENTER.