

# Processing Rules and Help routines

Processing rules and help routines are defined for fields in a map.

When you have completed the exercises below, your sample application will consist of the following modules (a processing rule cannot be defined as a separate module; it is always part of a map):



This chapter contains the following exercises:

- Defining a Processing Rule
- Defining a Help routine

## Defining a Processing Rule

You will now define the message that is to be displayed when the user presses ENTER without specifying a starting name.

### ▶ To define a processing rule

1. Return to the map editor by entering the following.

```
EDIT MAP01
```

2. Use the arrow keys to select the input field for the starting name. Press ESC to redisplay the menu and choose **Modify**.

The **Extended Field Editing** window appears.

```

+--Extended Field Editing-----+
|Field : #NAME-START              |
|Format: A Len: 20                |AL: 20          PM:          ZP: N  SG: N  |
|Rules : 0 Rule Editing: N Array: None   Array Editing: N  Mode:  User  |
|AD: ILMFHT'_' CD:          CV:          DY: N  HE: N  |
|EM:                               |
+-----+
  
```



```

EDIT:                               S 02- -----Columns 001 074
Rank:  NEW RULE           Rule:                               Typ: R  Mode: S
Cmdnd=>  p=1                                           Scroll==> CSR
***** ***** top of data *****
000001 IF & = ' ' THEN
000002   REINPUT 'PLEASE ENTER A STARTING NAME.'
000003   MARK *&
000004 END-IF
***** ***** bottom of data *****

PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
P      U      End  P*   Rfind Rchng Up      Down      Right Left Home
    
```

7. Press ENTER to save your input.

The following screen appears again. Your new rule with the rank 1 is now shown below **<CREATE>**. When you select this rule, the first lines of your code are shown at the bottom of the screen.

```

+--Current Field: #NAME-START-----+
|                                     R U L E   E D I T I N G (Esc = Quit)   |
|Rules                               Fields                                |
+-----+-----+
|<CREATE>|
|      1|          End XXXXXXXXXXXXXXXXXXXXX
+-----+

0010 IF & = ' ' THEN
0020   REINPUT 'PLEASE ENTER A STARTING NAME.'
0030   MARK *&

Create or modify a rule for this field
    
```

8. Press ESC repeatedly until the Natural Map Editor menu is shown again.
9. Test the map.
10. In the resulting output, enter any starting name and press ENTER.  
The output screen is closed.
11. Test the map once more. Do not enter a name and press ENTER.  
The message defined with the processing rule should now appear in the map.
12. To leave the output screen, enter a dot (.) in the field which prompts for a starting name and press ENTER.
13. Stow the map.

## Defining a Helprouine

A helprouine is displayed when the user presses the help key when the cursor is on the input field for the starting name.

You will first define the helprouine and then associate it with a specific field.

### To create a helprouine

1. From the Natural Map Editor menu, choose **Quit**.

Natural's main menu is shown again with the **Direct Command** window prompting for input.

2. Enter one of the following:

```
EDIT PROGRAM
```

```
E P
```

An empty editor appears.

3. Enter the following:

```
WRITE 'Type the name of an employee'  
END
```

4. Change the program to a helprouine by entering the following in the program editor's command line:

```
SET TYPE H
```

where "H" denotes helproutine.

5. Stow the helproutine and name it HLP01.

```
STOW HLP01
```

**To associate the helproutine with a field on the map**

1. Return to the map editor by entering the following in the command line of the screen in which you have just entered the helproutine.

```
E MAP01
```

2. Select the data field for the starting name, press ESC to display the Natural Map Editor menu and choose **Modify**.

The **Extended Field Editing** window is displayed for the field.

3. Use TAB to move to the field **HE**. Either enter "Y" in this field or press PF2.

A window appears prompting for the name of the helproutine.

4. In the **HE** field enter "'HLP01'" (including the single quotation marks).

This is the name under which you have saved your helproutine.

```
XXXXXXXXXX                                     TT:TT:TT

                                     Start XXXXXXXXXXXXXXXXXXXX
                                     End XXXXXXXXXXXXXXXXXXXX

+-HE-----+
|HE: 'HLP01'|
|           |
+-----+

+-Extended Field Editing-----+
|Field : #NAME-START           |
|Format: A Len: 20           AL: 20           PM:           ZP: N   SG: N   |
|Rules : 1 Rule Editing: Y   Array: None       Array Editing: N   Mode:  User  |
|AD: MILFHT'_' CD:           CV:           DY: N   HE: Y   |
|EM:                           |
+-----+

Helproutine and Parameters
```

5. Press ENTER twice to save your changes and close all windows.
6. Test the map.
7. In the resulting output, enter a question mark (?) in the input field for the starting name.

The help text you have defined is shown.

8. Press ENTER to return to the map.
9. To leave the map, enter a dot (.) in the field which prompts for a starting name and press ENTER.
10. Stow the map.
11. From the Natural Map Editor menu, choose **Quit**.

Natural's main menu is shown again with the **Direct Command** window prompting for input.

You can now proceed with the next exercises: *Local Data Areas*.