Entire Screen Builder

Basic Rules Reference

Version 4.3.1

software AG
THE XML COMPANY

This document applies to Entire Screen Builder Version 4.3.1 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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Basic Rules Reference

This section provides detailed information about the following basic rules.

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See Defining the Rules Using the SDK for further information.

Buttons for Main Dialog

Create push buttons which correspond to PF keys for the main dialog.

The following topics are covered below:

- Maintaining the Main Dialog Buttons Rule
- Overview of Options
- Defining the Content of a Push Button

Maintaining the Main Dialog Buttons Rule

The following applies when you have enabled the Function Keys rule and have defined the pattern of the function keys and their location on the characters screens.

You can use the Buttons for Main Dialog rule to create push buttons containing the following:

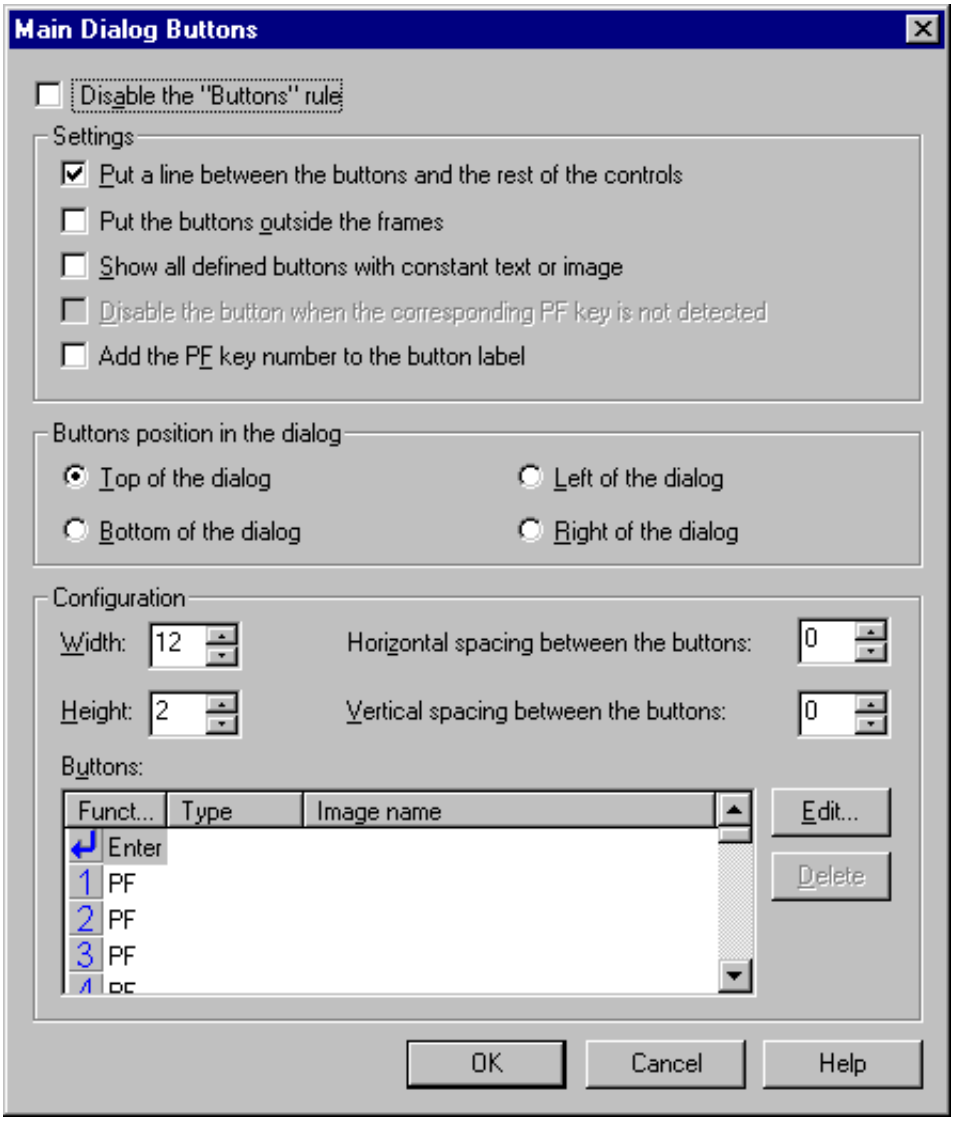
- the function key label from the character screen (dynamic text),
- an image related to the function key label from the character screen (dynamic image),
- constant text which ignores the function key label from the character screen,
- a constant image which ignores the function key label from the character screen.

To display all defined push buttons

- From the **Basic** menu, choose **Buttons > Main Dialog**.
  The "Main Dialog Buttons" dialog box appears. When a constant or dynamic image or constant text has already been defined for a push button, this is shown in the "Buttons" list box. All other function keys have the default button type "dynamic text".
  The following command buttons are available:

Edit	Modify the push button definition for the selected function key. Alternative: double-click a function key. See Defining the Content of a Push Button.
Delete	Delete the push button definition for the selected function key and reset it to "dynamic text". The function key itself is not deleted.

Overview of Options



Disable the Buttons rule

When this check box is selected, this rule is disabled.

Put a line between the buttons and the rest of the controls

When this check box is selected, a separation line will appear between the push buttons and the dialog.

Put the buttons outside the frames

If you are using, for example, push buttons at the bottom of the dialog (as defined with this rule) and a frame is also shown at the bottom of the dialog (as defined with the Frames rule), you can select this check box so that the push buttons are moved from the bottom of the dialog to a position below the frame.

If you are using frames and select this check box, the push buttons are moved as indicated in the following table:

Frame name	Position of the push buttons	The buttons are moved to a position ...
"TOP"	Top of the dialog	above the frame.
"BOTTOM"	Bottom of the dialog	below the frame.
"LEFT"	Left of the dialog	to the left of the frame.
"RIGHT"	Right of the dialog	to the right of the frame.

Show all defined buttons with contant text or image

When this check box is selected, all push buttons for which you have defined a constant image or constant text are shown. By default, all push buttons are enabled (even if they are not available on the current screen and thus do not execute a command). You can change this with the option "Disable the button when the corresponding PF key is not detected".

When this check box is not selected, only the PF keys that are detected on the character screen are shown as push buttons. A prerequisite for this is that the location and pattern of the PF keys has been defined with the Function Keys rule. For example, when you have defined a constant image for PF1 and this PF key is not detected on the character screen, a push button is not shown for this PF key.

Disable the button when the corresponding PF key is not detected

This option is only available if the check box "Show always all the buttons defined" has been selected.

When this check box is selected, each push button for which the corresponding PF key cannot be found on the screen is disabled.

When this check box is not selected, all push buttons are enabled.

Add the PF key number to the button label

This option is only available if the check box "Show always all the buttons defined" has not been selected (i.e. only the PF keys that are detected on the character screen are shown as push buttons).

When this check box is selected, the number of the corresponding PF key is also shown in the label of a push button. For example, "F1-Help". A prerequisite for this is that the content of each push button is defined as dynamic text (see below).

Buttons position in the dialog

Select an option button to define the position in the dialog (top, bottom, left or right) at which the push buttons are to be shown.

Configuration

Specify the size (width and height) of the buttons and the distance between the buttons (horizontal and vertical spacing). To do so, specify the number of characters (1-100) in the corresponding spin boxes. For example, a button for which the width and height have been defined with 1, has the same size as a character. When you change the font, the button is automatically resized to the new font size.

Defining the Content of a Push Button

The "Button Configuration" dialog box appears when you select a function key in the "Main Dialog Buttons" dialog box and choose the **Edit** button.

A push button corresponds to a specific function key. The content of a push button can be plain text, a constant image or a dynamic image.

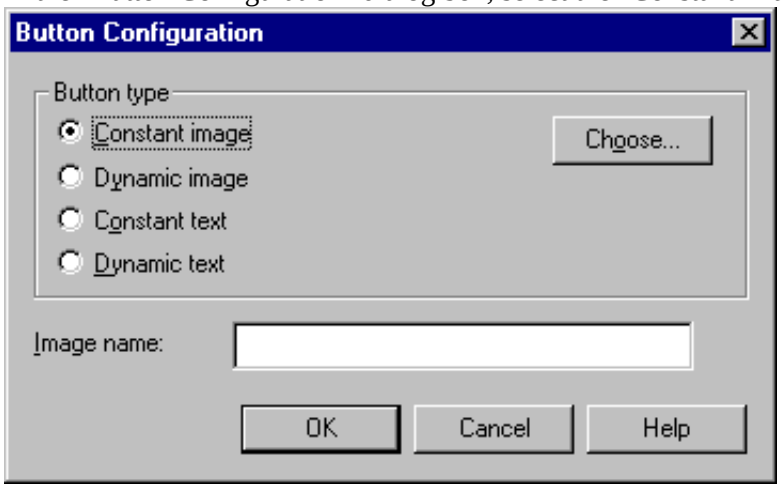
A constant image always shows the content of the same file. A dynamic image shows the content of a file that has the same name as the selected function key.

Note:
A dynamic image cannot be defined for the ENTER key.

See General Information on Image Files in the SDK documentation.

To define a constant image for a push button

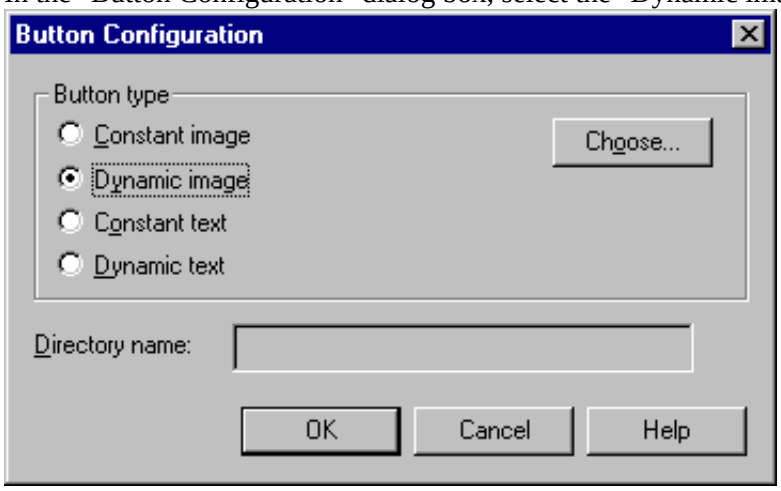
1. In the "Button Configuration" dialog box, select the "Constant image" option button.



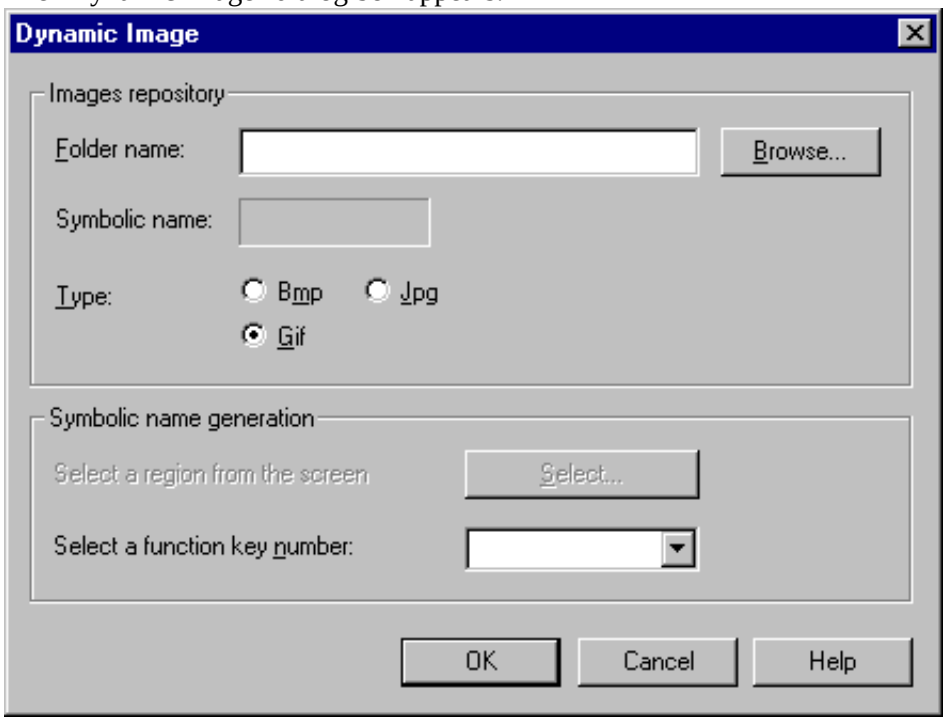
2. In the "Image name" text box, specify the path and name of the image (relative to the root folder of the rules repository).
   Or choose the **Choose** button to select the image from a list.
3. Choose the **OK** button.
   Type ("Constant") and path to the image are now shown in the "Main Dialog Buttons" dialog box.

To define a dynamic image for a push button

1. In the "Button Configuration" dialog box, select the "Dynamic image" option button.



2. Choose the **Choose** button.
   The "Dynamic image" dialog box appears.



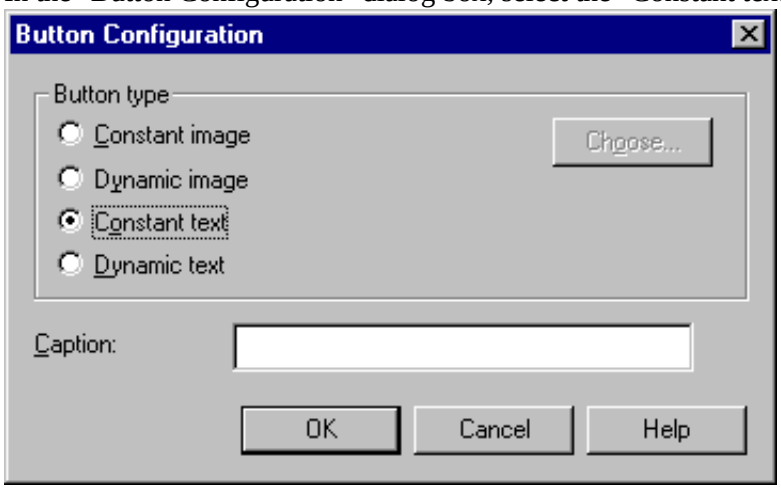
3. Specify a folder in your rules repository (relative to the root folder of the rules repository), or choose the **Browse** button to select the folder from a dialog box.
   This is the folder containing your image files.
4. Select the desired type (Bmp, Gif or Jpg).
   This is the extension of the image files that are to be used.
5. From the "Select a function key number" drop-down list box, select a function key number.
   The name of the selected function key is now shown in the "Symbolic name" text box. It is enclosed in percent (%) signs.

Note:
The **Select** button is not available for this rule.

6. Choose the **OK** button.
   The "Button Configuration" dialog box is shown again.
7. Choose the **OK** button once more.
   Type ("Dynamic") and path to the image are now shown in the "Main Dialog Buttons" dialog box.

To define your own text for a push button

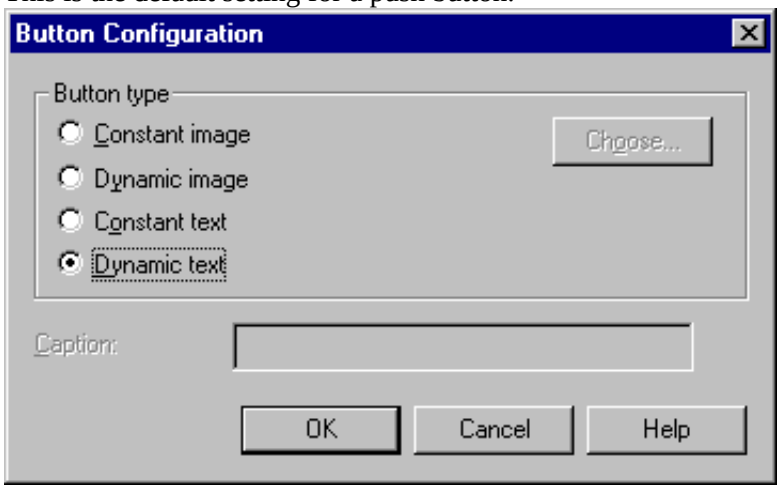
1. In the "Button Configuration" dialog box, select the "Constant text" option button.



2. Enter the desired text in the "Caption" text box.
3. Choose the **OK** button.
   Type ("Text") and defined text are now shown in the "Main Dialog Buttons" dialog box.

To use the text received from the legacy application for a push button

1. In the "Button Configuration" dialog box, select the "Dynamic text" option button.
   This is the default setting for a push button.



2. Choose the **OK** button.

Buttons for Child Dialogs

Create push buttons which correspond to PF keys for child dialogs.

The following topics are covered below:

- Maintaining the Child Dialog Buttons Rule
- Overview of Options
- Defining the Content of a Push Button

Maintaining the Child Dialog Buttons Rule

The following applies when you have enabled the Function Keys rule and have defined the pattern of the function keys and their location on the characters screens.

You can use the Buttons for Child Dialogs rule to create push buttons containing the following:

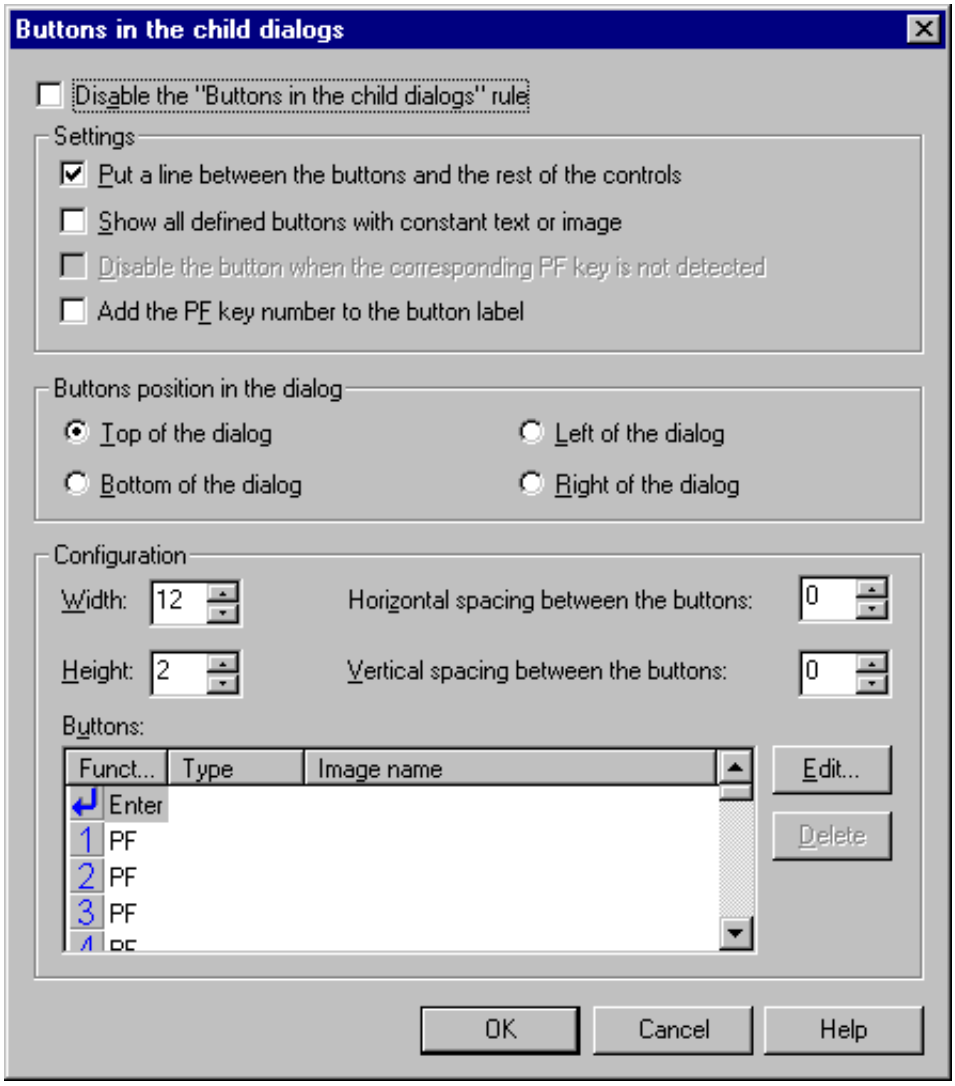
- the function key label from the character screen (dynamic text),
- an image related to the function key label from the character screen (dynamic image),
- constant text which ignores the function key label from the character screen,
- a constant image which ignores the function key label from the character screen.

To display all defined push buttons

- From the **Basic** menu, choose **Buttons > Child Dialogs**.
  The "Buttons in the child dialogs" dialog box appears. When a constant or dynamic image or constant text has already been defined for a push button, this is shown in the "Buttons" list box. All other function keys have the default button type "dynamic text".
  The following command buttons are available:

Edit	Modify the push button definition for the selected function key. Alternative: double-click a function key. See Defining the Content of a Push Button.
Delete	Delete the push button definition for the selected function key and reset it to "dynamic text". The function key itself is not deleted.

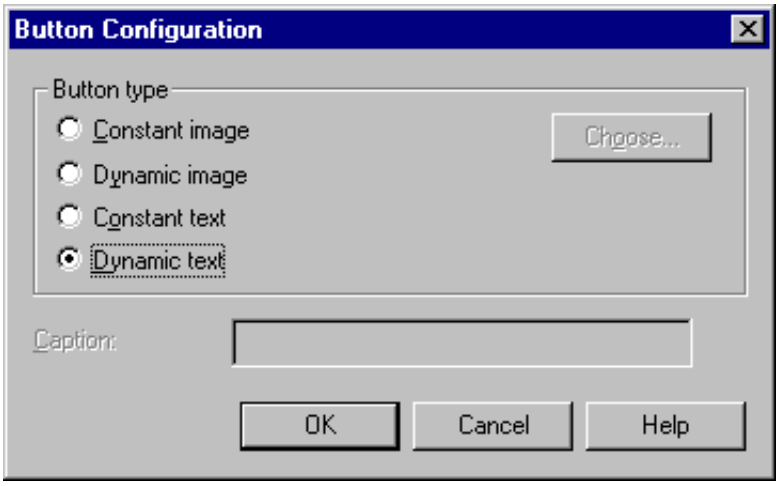
Overview of Options



This dialog box contains the same information as the dialog box that is shown for the buttons in the main dialog. The only exception is that buttons cannot be put outside the frames. See the section Buttons for Main Dialog for detailed information on the options in this dialog box.

Defining the Content of a Push Button

The "Button Configuration" dialog box appears when you select a function key in the "Buttons in the child dialogs" dialog box and choose the **Edit** button.



See the section Buttons for Main Dialog for detailed information on the options in this dialog box.

Child Window

Convert the popup windows in the character screens to child windows.

The following topics are covered below:

- Maintaining the Child Window Rules
- Overview of Options

Maintaining the Child Window Rules

You have to define a pattern for each popup window that you want to convert to a child window.

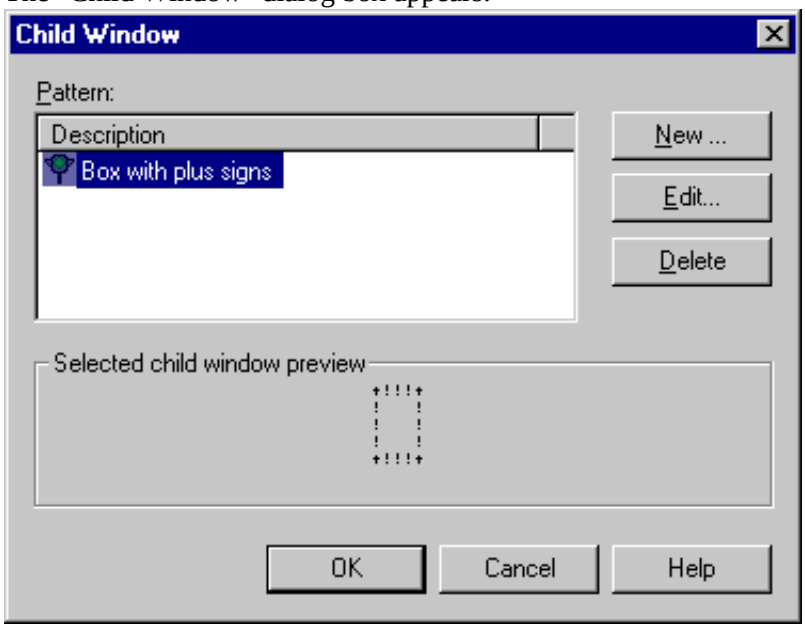
Warning:
Do not define the same patterns for the Child Window rule and the Group Box rule.

If there is more than one child window on a screen and one of the child windows completely overlaps another child window, the overlapped child window is removed. When the bigger window is moved, the child windows below are no longer displayed.

When the server is a UNIX or OpenVMS machine and Natural statements have been used to create the popup windows, it is not necessary to define this rule. In this case, child windows are detected automatically. However, if the popup windows have been drawn in the Natural map, you have to define this rule so that the popup windows can be converted to child windows.

To display all defined Child Window rules

- From the **Basic** menu, choose **Child Window**.
  The "Child Window" dialog box appears.



When patterns have already been defined, the description of each pattern is shown in this dialog box.

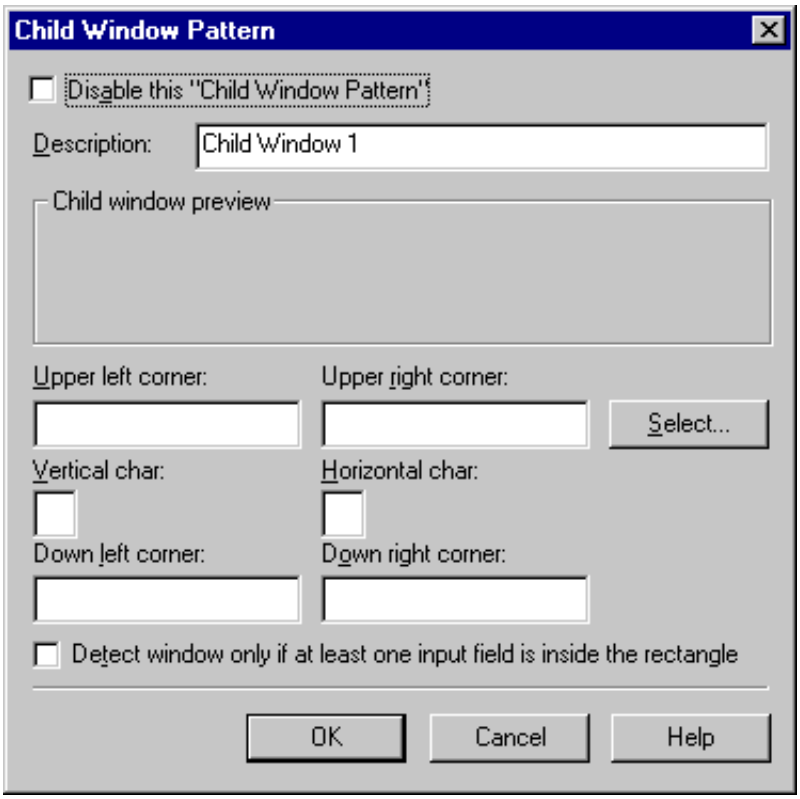
When you select a description, the defined pattern is shown at the bottom of the dialog box.
The color red in the symbol to the left of a description indicates that this rule has been disabled. A symbol with the color green indicates that the rule is enabled.
The following command buttons are available:

New	Add a new Child Window rule (see below).
Edit	Modify the selected pattern for a Child Window rule. Alternative: double-click a pattern for a Child Window rule.
Delete	Delete the selected Child Window rule.

To add a Child Window rule

1. Display the "Child Window" dialog box as described above.
2. Choose the **New** button.
   The "Child Window Pattern" dialog box appears.
3. Specify all required information as described below.
4. Choose the **OK** button.

Overview of Options



Disable this Child Window Pattern

When this check box is selected, this rule is disabled.

Description

Enter a description for this pattern. A default description is automatically provided.

Child window preview

Depending on the characters you enter in the following text boxes, this region shows how the popup window in the character screen is to look like.

Upper left corner

Defines the character that is used in the character screen to indicate the upper left corner of the popup window. You can enter one or more characters in this text box.

Upper right corner

Defines the character that is used in the character screen to indicate the upper right corner of the popup window. You can enter one or more characters in this text box.

Vertical char

Defines the character that is used in the character screen to indicate the vertical lines of the popup window. You can only enter one character in this text box.

Horizontal char

Defines the character that is used in the character screen to indicate the horizontal lines of the popup window. You can only enter one character in this text box.

Down left corner

Defines the character that is used in the character screen to indicate the lower left corner of the popup window. You can enter one or more characters in this text box.

Down right corner

Defines the character that is used in the character screen to indicate the lower right corner of the popup window. You can enter one or more characters in this text box.

Select

This command button invokes the "Characters selector" dialog box. Instead of typing the characters in the corresponding text boxes, you can also select them from this dialog box. Before choosing a character, position the cursor in the appropriate text box.

Detect window only if at least one input field is inside the rectangle

When this check box is selected, a popup window is only converted to a child window if one or more input fields are detected inside the popup window. When this check box is not selected, all rectangles in the screen with the same format as defined in this rule are transformed to child windows.

Control Attributes

Define the control size and special characters used in your legacy application.

The following topics are covered below:

- Maintaining the Control Attributes Rule
- Overview of Options

Maintaining the Control Attributes Rule

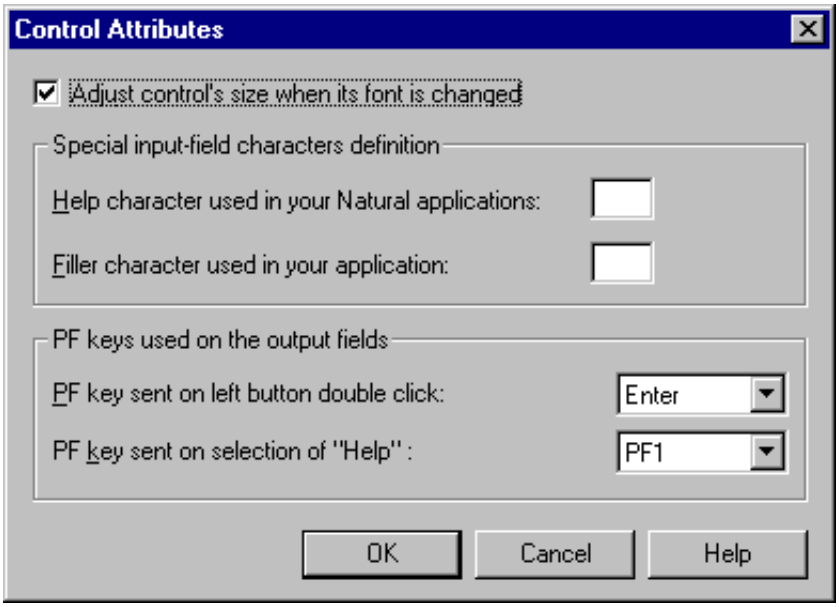
When you define this rule, you have to consider the following:

- If you are working in a UNIX or OpenVMS environment and your Natural application supports field help, you have to know which character is used as the help character.
- In Windows applications, edit boxes do not contain filler characters. If your legacy application uses filler characters, you should remove them using this rule.

To define the control attributes

1. From the **Basic** menu, choose **Control Attributes**.
   The "Control Attributes" dialog box appears.
2. Specify all required information as described below.
3. Choose the **OK** button.

Overview of Options



Adjust control’s size when its font is changed

When this check box is selected, the size of a control is automatically increased or reduced according to the font that has been defined for the text in this control.

Help character used in your Natural applications

Only applies when your legacy application is running in a UNIX or OpenVMS environment. In this text box, specify the help character that is used in your Natural application. When the user works with the viewer and moves the mouse pointer to a field for which field help has been defined, a question mark is automatically shown with the mouse pointer. When the user then clicks such a field using the right mouse button, the defined help character is sent to the Natural application and field help is displayed.

Filler character used in your application

In mainframe, UNIX and OpenVMS applications, filler characters are used to differentiate between unprotected and protected fields. Under Windows these filler characters are not required. When you specify the filler character that is used in your legacy application in this text box, the filler characters are no longer shown.

The following example shows a mainframe input field:

```
Name.......:_______________
```

When you do not define the filler character, the viewer displays the corresponding control as follows:

However, when you define the filler character, this control looks like a regular Windows edit box:

PF key sent on left button double-click

Select the PF key that is to be sent to the legacy application when the user double-clicks the screen using the left mouse button. By default, the ENTER key is sent.

PF key sent on selection of "Help"

Select the PF key that is to be sent to the legacy application when the user clicks the right mouse button and chooses "Help" from the resulting context menu. By default, the PF1 key is sent.

Delete Characters

Define the characters that will not be displayed by the viewer.

You can define output fields that are to be deleted and thus not shown in the viewer. If one, and only one, of the characters defined for this rule is contained in an output field, this output field will not be shown. If the output field contains other characters in addition to this character (either defined or undefined), this rule will not be applied. This rule can be used, for example, to delete fields containing the underscore (_) character. Blanks are ignored.

Example:

The following characters have been defined in the "Delete Characters" dialog box:

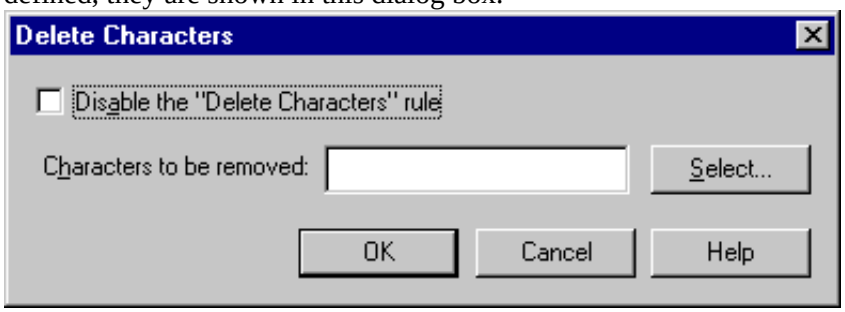
```
.*<>
```

The following table gives examples for fields that may appear in the character screen and informs you whether they are removed by the above definition.

Field in the Character Screen	Remove Characters
<*************>	No
<<<<<<<<<<<	Yes
>>>>>>>>>>>	Yes
* * * * * * **	Yes
<**.<<<*** >>>**	No
.....	Yes
U.N.I.C.E.F.	No

To define the characters that are to be deleted

1. From the **Basic** menu, choose **Delete** > **Characters**.
   The "Delete Characters" dialog box appears. When characters to be deleted have already been defined, they are shown in this dialog box.



2. Either type the characters to be removed in the text box or choose the **Select** button to select them from the "Characters selector" dialog box.
   Or, if the defined characters are no longer to be removed, select the "Disable the Delete Characters rule" check box.
3. Choose the OK button.

Delete Lines

Delete lines so that they are not displayed by the viewer.

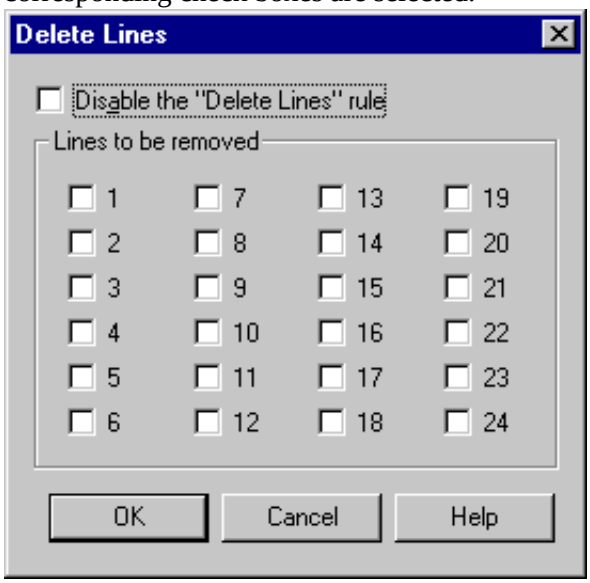
You can delete any line (1 to 24) of the character screen. For example, you can delete the lines at the top of a screen if you want to place an image with your company logo in this position. You can also delete a line displaying a user ID and then place a dynamic image with a picture of this user in the same position.

This rule shrinks the dialog so that the following lines of the character screen are automatically moved up when displayed with the viewer.

If a line contains an input field, it is not deleted.

To define the lines that are to be deleted

1. From the **Basic** menu, choose **Delete > Lines**.
   The "Delete Lines" dialog box appears. When lines to be deleted have already been defined, the corresponding check boxes are selected.



2. If you want to remove (additional) lines, select the corresponding check boxes.
   Or, if the defined lines are no longer to be removed, select the "Disable the Delete Lines rule" check box.
3. Choose the **OK** button.

Delete Prompt

Define the prompts that will not be displayed.

The following topics are covered below:

- Maintaining the Delete Prompt Rules
- Overview of Options

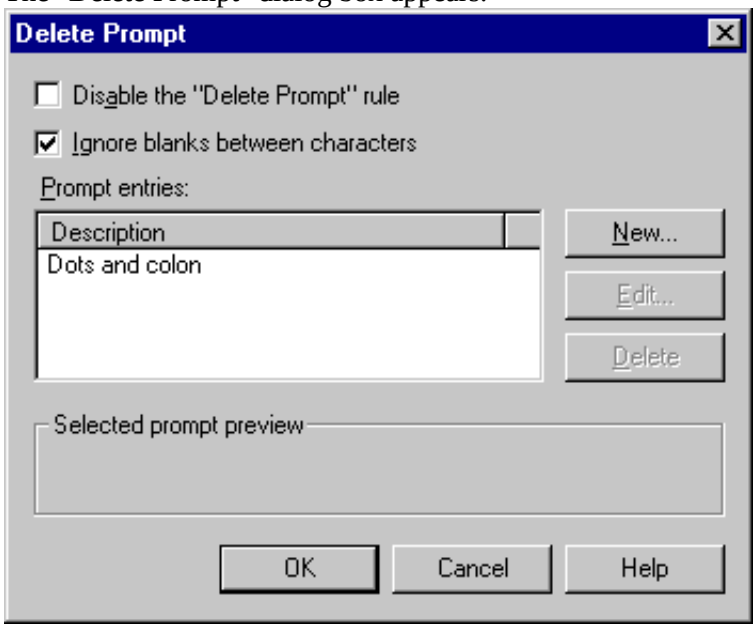
Maintaining the Delete Prompt Rules

This rule is useful, if you want to remove the prompt characters, consisting of filler and ending characters, from the label of a field. In the following example, "." is the filler character and ":" is the ending character:

```
NAME .....:
```

To display all defined Delete Prompt rules

1. From the **Basic** menu, choose **Delete > Prompt**.
   The "Delete Prompt" dialog box appears.



   When prompt entries have already been defined, the description of each entry is shown in this dialog box. When you select a description, the defined prompt is shown at the bottom of the dialog box.
2. Select the "Disable the Delete Prompt rule" check box, if you want to disable all defined Delete Prompt rules. Otherwise, proceed as described below.
3. Select the "Ignore blanks between characters" check box, if the defined prompts are to be deleted even if they contains blanks. For example:

```
Name . . . .        :
```

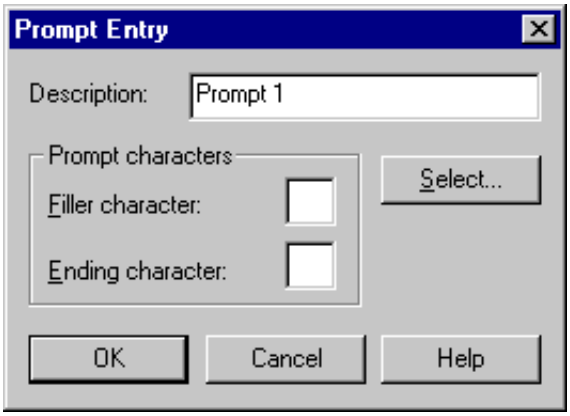
The following command buttons are available:

New	Add a new Delete Prompt rule (see below).
Edit	Modify the selected pattern for a Delete Prompt rule. Alternative: double-click a pattern for a Delete Prompt rule.
Delete	Delete the selected Delete Prompt rule.

To add a Delete Prompt rule

1. Display the "Delete Prompt" dialog box as described above.
2. Choose the **New** button.
   The "Prompt Entry" dialog box appears.
3. Specify all required information as described below.
4. Choose the **OK** button.

Overview of Options



Description

Enter a description for this prompt. A default description is automatically provided.

Filler character

Defines the character that is used as the filler character in the character screen.

Ending character

Defines the character that is used as the ending character in the character screen.

Select

This command button invokes the "Characters selector" dialog box. Instead of typing the characters in the corresponding text boxes, you can also select them from this dialog box. Before choosing a character, position the cursor in the appropriate text box.

Dialog Attributes

Define VGA screen support and the size of the dialogs. The dialog size only applies to parents windows, not to child windows.

The following topics are covered below:

- Maintaining the Dialog Attributes Rule
- Overview of Options

Maintaining the Dialog Attributes Rule

When you define this rule, you have to consider the following:

- Check whether the viewer will run when the screen resolution is 640x480.
- Check whether it is better to define a constant or variable size for the dialogs.

To define the dialog attributes

1. From the **Basic** menu, choose **Dialog Attributes**.
   The "Dialog Attributes" dialog box appears.
2. Specify all required information as described below.
3. Choose the **OK** button.

Overview of Options

Support standard VGA screens (640x480)

It is recommended that you select this check box when VGA screens are used. When this check box is not selected, it may happen that a dialog is larger than can be displayed on the VGA screen.

Variable size

When this option button is selected, the height of each dialog is adjusted to its contents. If the last rows of the dialog do not contain any controls, they are removed. This option does not affect the width of the dialog.

Constant size

When this option button is selected, each dialog is shown with the size you specify using the "Rows" and "Columns" spin boxes.

Font and Colors

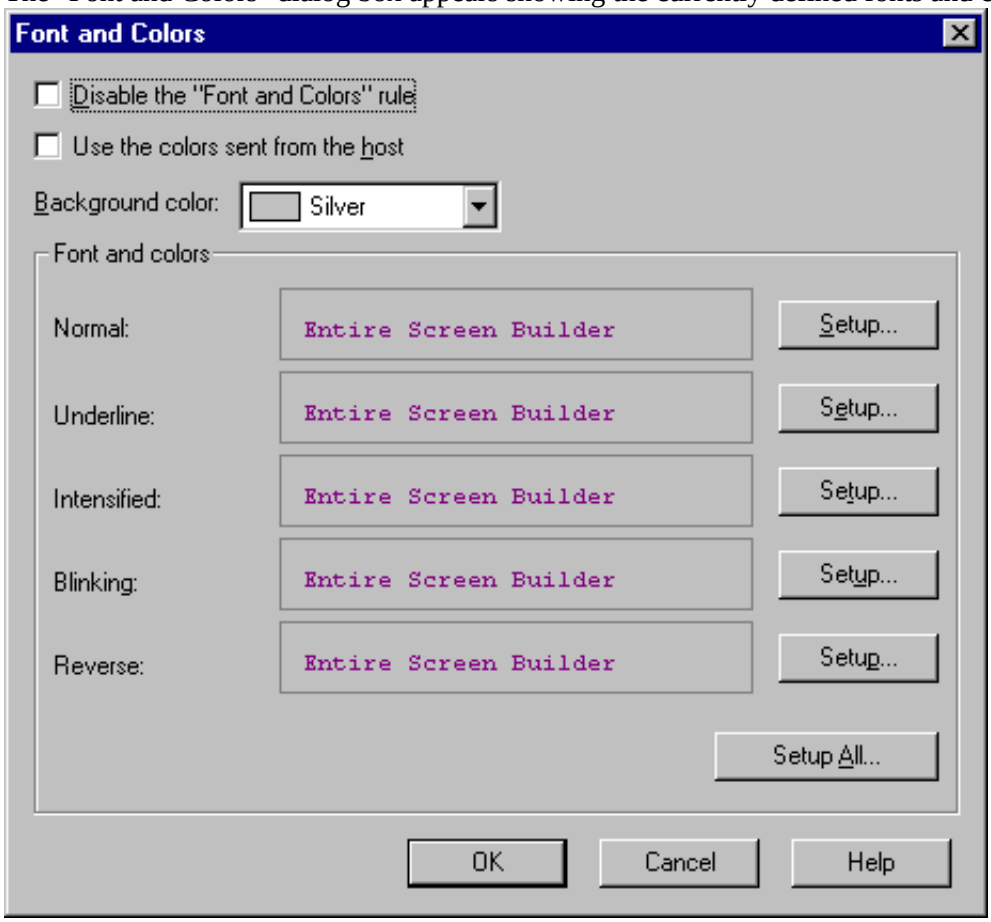
Define the background color for the dialogs, and the font, style, size and/or color for the following attributes: normal, underline, intensified, blinking and reverse.

You can also define that the colors are used as sent from host. The following applies for the different operating systems:

- Mainframe
  Foreground and background colors are taken from the color scheme that has been defined using the System Management Hub. See Color Schemes in the Administration documentation.
  The font is taken from the "Normal" option in the "Font and Colors" dialog box (see below).
  Blinking is not supported - this attribute is ignored.
- UNIX and OpenVMS
  The foreground color taken from Natural.
  The backgound color is taken from the "Font and Colors" dialog box (see below).
  The font is taken from the "Normal" option in the "Font and Colors" dialog box (see below).

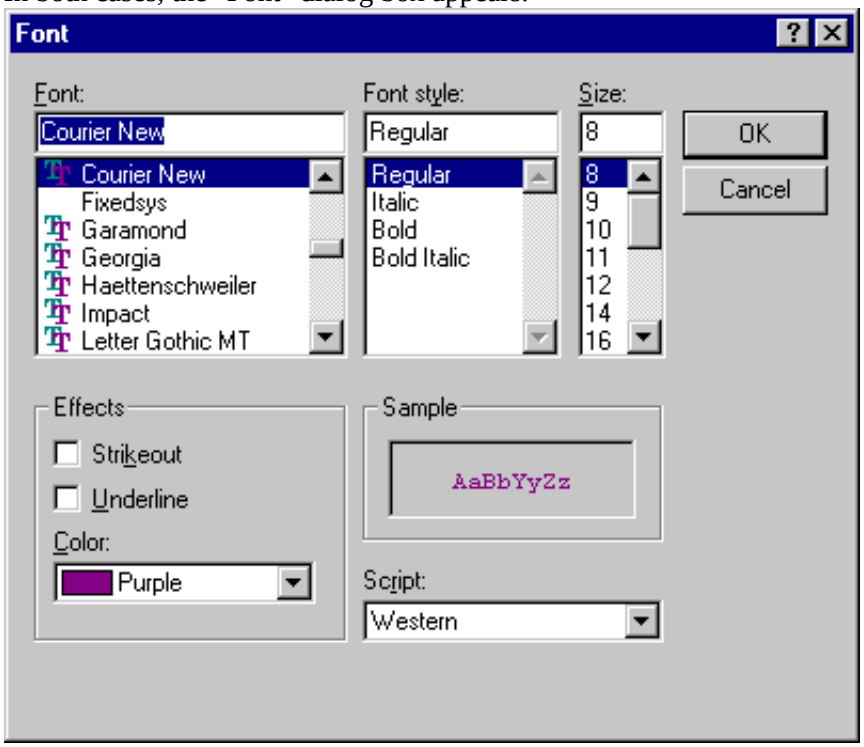
To modify font and/or color

1. From the **Basic** menu, choose **Font and Colors**.
   The "Font and Colors" dialog box appears showing the currently defined fonts and colors.



2. If you want to disable the current settings, select the "Disable the Font and Colors rule" check box.
   Or, if you want to change the font and/or color, proceed as described below.

3. If you want to use the colors that are sent from the host, select the corresponding check box. In this case, the only option that is available in the "Font and colors" group box is "Normal".
4. If you want to define the background color for the dialogs, select the desired color from the corresponding drop-down list box.
   When you select "System" from the drop-down list box, the background color as defined under Windows will be used.
   When you select "Custom..." from the drop-down list box, the "Color" dialog box appears and you can select additional colors or define custom colors. The currently defined color is shown next to "Custom...".
5. If you want to define different fonts and/or colors for the different attributes, choose the corresponding **Setup** button for an attribute.
   Or, if you want to define the same font and/or color for all attributes, choose the **Setup All** button.
   In both cases, the "Font" dialog box appears.



6. Specify all required options and choose the **OK** button.
   The "Font and Color" dialog box now shows the new settings for the attributes.
7. Choose the **OK** button to close the "Font and Color" dialog box.

Frames

Define up to four dialogs for which extended rules have been defined. These dialogs are used as frames.

The frames can be placed at the top, bottom, left and right of the dialog containing the basic rules. This is helpful, for example, if you always want to place the same image at the top of a dialog and the same buttons for the PF keys at the bottom of a dialog. The end-user cannot see that different frames are used.

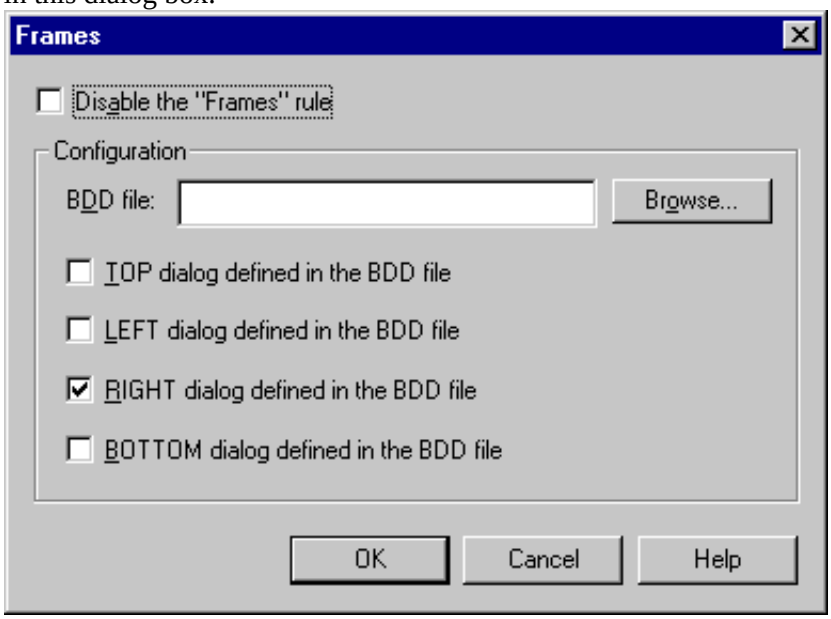
The dialogs to be used as frames must be contained in a BDD file. The dialogs must be named as follows (the quotation marks are part of the name):

- "TOP"
- "LEFT"
- "RIGHT"
- "BOTTOM"

See Building the BDD File in the section Defining the Rules Using the SDK for further information.

To define the Frames rule

1. From the **Basic** menu, choose **Frames**.
   The "Frames" dialog box appears. When frames have already been defined, this information is shown in this dialog box.



2. If the defined frames are no longer to be shown, select the "Disable the Frames rule" check box.
   Or modify the information in this text box as described below.
3. In the "BDD file" text box, specify the path to the BDD file.
   Or choose the **Browse** button to select the BDD file from the "Open" dialog box.
4. Select the corresponding check box for each dialog that is to be used as a frame.
5. Choose the **OK** button.

Function Keys

Define the detection logic for the function keys in the character screens. To do so, you have to define the number of lines (from the bottom of the screen) that are to be searched for function keys and the pattern for detection.

It is not necessary to define this rule when the host is a UNIX or OpenVMS machine and the function keys have been defined using Natural statements. In this case, the function keys are detected automatically by Natural UNIX and Natural OpenVMS. However, if the function keys have been defined manually in the Natural map, you must also define the function keys using this rule.

When function keys are detected on a screen, they are removed from the character screen. They are then added to the PF keys toolbar.

The following topics are covered below:

- Maintaining the Function Keys Rule
- Overview of Options

Maintaining the Function Keys Rule

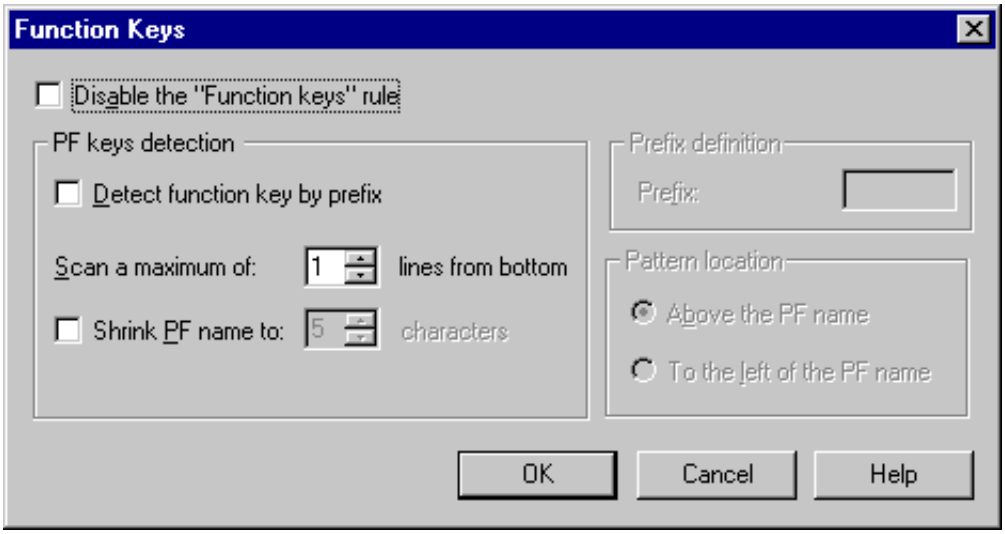
If you do not define the Function Keys rule, function keys cannot be detected by the following rules:

- Buttons for Main Dialog
- Buttons for Child Dialogs

To define the Function Keys rule

1. From the **Basic** menu, choose **Function Keys**.
   The "Function Keys" dialog box appears.
2. Specify all required information as described below.
3. Choose the **OK** button.

Overview of Options



Disable the Function Keys rule

When this check box is selected, this rule is disabled.

Detect function key by prefix

When this check box is selected, you can define a prefix (see below).

You must select this check box, if you want to detect the following:

- function keys on mainframe screens, and
- function keys that have been added manually to Natural UNIX and Natural OpenVMS screens.

Scan a maximum of *n* lines from bottom

The number of lines from the bottom of the screen that are to be searched for the functions keys. For example, when you specify 4, the last 4 lines of the screen are searched.

Shrink PF name to *n* characters

When this check box is selected, the PF key name is truncated to the number of characters specified in the spin box.

Prefix

Only available if the "Detect function key by prefix" check box has been selected. This is a case-sensitive string that is considered as an indicator of a possible function key. For example, if the function keys are named PF1 to PF24, you have to specify "PF" in this text box.

Pattern location

Only available if the "Detect function key by prefix" check box has been selected. Specify the location of the PF key number by selecting the corresponding option button:

- Above the PF name. For example:

```
PF1---PF2---PF3---
Help        Exit
```

- To the left of the PF name. For example:

```
PF1 = Help  PF3 = Exit
```

Function Keys Toolbar

Display a toolbar with buttons for function keys (PF keys and ENTER key).

The following topics are covered below:

- Maintaining the Function Keys Toolbar Rule
- Overview of Options
- Defining An Image for a Toolbar Button

Maintaining the Function Keys Toolbar Rule

You can define an image for each button that is to be shown in the function keys toolbar.

The following applies when you have used the Function Keys rule to define the location of the PF keys and if the check box "Show all defined buttons with constant image" (see below) is **not** selected: if you do not define an image, the PF key numbers are shown on the toolbar button. The PF key name is automatically shown as a tooltip. For example:

However, if you define an image and tooltip for a toolbar button, this information overwrites the PF key number and name.

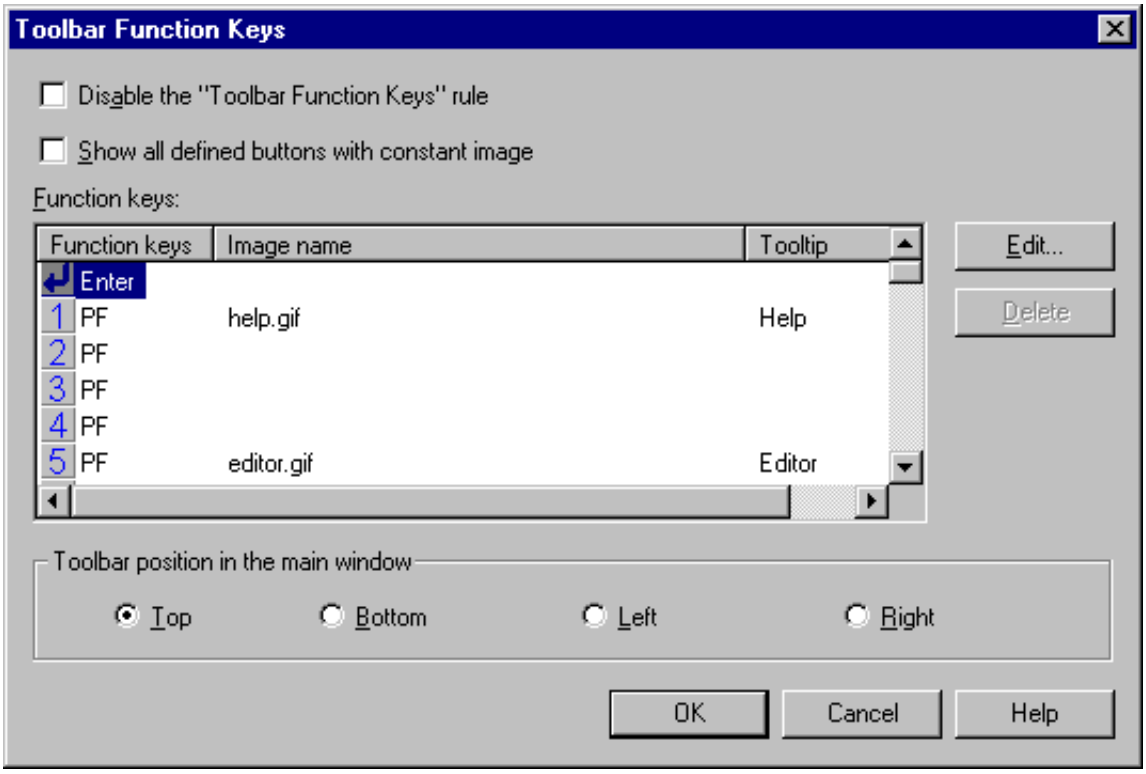
If the check box "Show all defined buttons with constant image" is selected, the Function Keys rule is not considered. In this case, toolbar buttons are only shown for the PF keys for which an image has been defined in the "Toolbar Button" dialog box.

To display all defined toolbar buttons

- From the **Basic** menu, choose **Toolbar > Function Keys**.
  The "Toolbar Function Keys" dialog box appears. When images and tooltips have already been defined for a toolbar button, this is shown in this dialog box.
  The following command buttons are available:

Edit	Modify the toolbar button definition for the selected function key. Alternative: double-click a function key. See Defining An Image for a Toolbar Button.
Delete	Delete the toolbar button definition for the selected function key. The function key itself is not deleted.

Overview of Options



Disable the Toolbar Function Keys rule

When this check box is selected, the defined function key toolbar is no longer shown.

Show all defined buttons with constant image

When this check box is selected, all toolbar buttons for which you have defined an image are shown.

When this check box is not selected, only the PF keys that are detected on the character screen are shown. A prerequisite for this is that the location of the PF keys has been defined with the Function Keys rule. For example, when you have defined an image for PF1 and this PF key is not detected on the character screen, a toolbar button is not shown for this PF key.

Toolbar position in the main window

Select an option button to define the position in the window (top, bottom, left or right) at which the toolbar is to be shown.

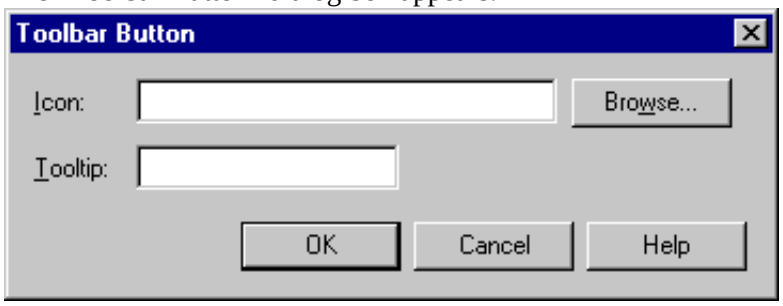
Defining An Image for a Toolbar Button

A toolbar button can be any GIF, JPG or BMP file with 19x19 pixels in size.

See General Information on Image Files in the SDK documentation.

To define an image for a toolbar button

1. Display the "Toolbar Function Keys" dialog box as described above.
2. Select the function key for which you want to define an image.
3. Choose the **Edit** button.
   The "Toolbar Button" dialog box appears.



4. In the "Icon" text box, specify the path to the image in the rules repository (relative to the root folder of the rules repository) that is to be shown on the toolbar button.
   Or choose the **Browse** button to select the file from the "Open" dialog box.
5. In the "Tooltip" text box, specify a short description that is to appear when the user moves the mouse pointer over this toolbar button.
6. Choose the **OK** button.

Group Box

Convert boxes in the character screens to group boxes.

The following topics are covered below:

- Maintaining the Group Box Rules
- Overview of Options

Maintaining the Group Box Rules

You have to define a pattern for each box that you want to convert to a group box.

Warning:
Do not define the same patterns for the Group Box rule and the Child Window rule.

Two types of pattern are available:

- One for detecting all characters that are used to make up the box.
- Another for using diagonal detection (the upper left and the lower right corners). If you want to place a title in the group box, you have to define the title mark character. With diagonal detection you have to modify the map of your legacy application: insert an output field in the upper left corner and another output field in the lower right corner. Set the Natural attribute "no display" for both fields. It is important that you use characters that are not used in your legacy application.

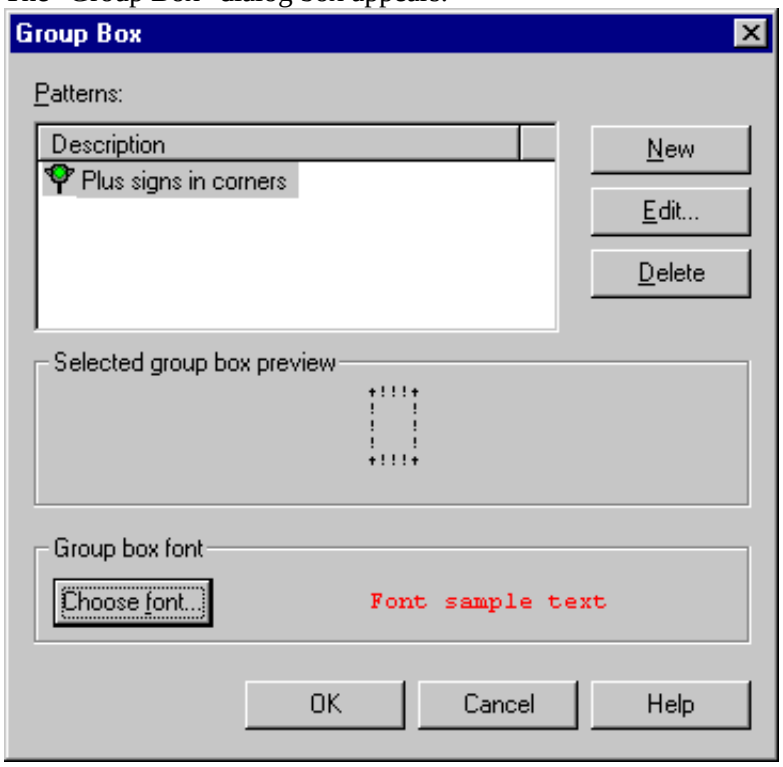
Example for Diagonal Detection:

In the following example, the character { is used for the upper left corner and } is used for the lower right corner. The hash character (#) is used as the title mark.

```
SOFTWARE AG    *** EMPLOYEE MANAGEMENT ***              21/04/99
NSWEMPA1              ADD EMPLOYEES                     17:45:09
------------------------------------------------------------------

{ #PERSONAL DATA

CODE......:_____________
NAME......:_____________  SURNAME........:____________________
MARITAL ST:__             DATE OF BIRTH..:__ __ __
                                                              }
{ #ADDRESS

ADDRESS...:________________ CITY......:_____________________
COUNTRY...:___ POST CODE.:________
                                                              }
{ #COMPANY DATA

DEPARTMENT.....:___________
CATEGORY.......:___________
                                                              }
```

To display all defined Group Box rules

- From the **Basic** menu, choose **Group Box**.
  The "Group Box" dialog box appears.



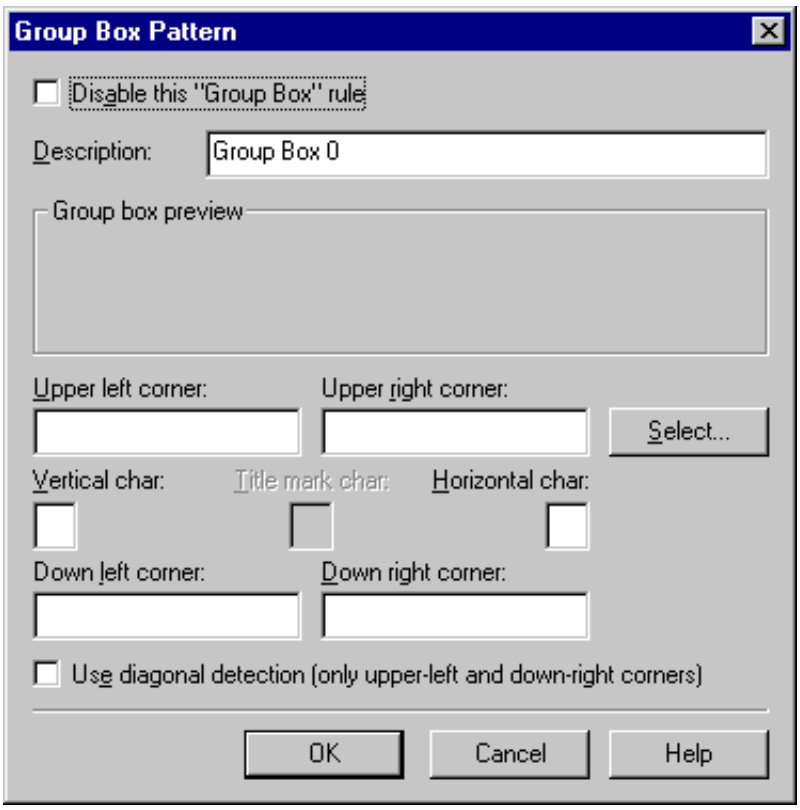
When patterns have already been defined, the description of each pattern is shown in this dialog box. When you select a description, the defined pattern is shown as a preview.
The color red in the symbol to the left of a description indicates that this rule has been disabled. A symbol with the color green indicates that the rule is enabled.
The following command buttons are available:

New	Add a new Group Box rule (see below).
Edit	Modify the selected pattern for a Group Box rule. Alternative: double-click a pattern for a Group Box rule.
Delete	Delete the selected Group Box rule.
Choose font	Invoke the "Font" dialog box in which you can define the font and/or color for the title that is shown in the frame of the group box. The currently defined font and color, which applies to all defined patterns, is shown next to this command button.

To add a Group Box rule

1. Display the "Group Box" dialog box as described above.
2. Choose the **New** button.
   The "Group Box Pattern" dialog box appears.
3. Specify all required information as described below.
4. Choose the **OK** button.

Overview of Options



Disable this Group Box rule

When this check box is selected, this rule is disabled.

Description

Enter a description for this pattern. A default description is automatically provided.

Group box preview

Depending on the characters you enter in the following text boxes, this region shows how the box in the character screen is to look like.

Upper left corner

Defines the character that is used in the character screen to indicate the upper left corner of the box. You can enter one or more characters in this text box.

Upper right corner

Not available when the "Use diagonal detection" check box is selected.

Defines the character that is used in the character screen to indicate the upper right corner of the box. You can enter one or more characters in this text box.

Vertical char

Not available when the "Use diagonal detection" check box is selected.

Defines the character that is used in the character screen to indicate the vertical lines of the box. You can only enter one character in this text box.

Title mark char

Only available when the "Use diagonal detection" check box is selected.

Defines the character that is used in the character screen to detect the group box title. You can only enter one character in this text box.

Horizontal char

Not available when the "Use diagonal detection" check box is selected.

Defines the character that is used in the character screen to indicate the horizontal lines of the box. You can only enter one character in this text box.

Down left corner

Not available when the "Use diagonal detection" check box is selected.

Defines the character that is used in the character screen to indicate the lower left corner of the box. You can enter one or more characters in this text box.

Down right corner

Defines the character that is used in the character screen to indicate the lower right corner of the box. You can enter one or more characters in this text box.

Use diagonal detection (only upper-left and down-right corners)

When this check box is selected, you can define the title mark character. In this case, it is only possible to define the upper left and down right corners.

Select

This command button invokes the "Characters selector" dialog box. Instead of typing the characters in the corresponding text boxes, you can also select them from this dialog box. Before choosing a character, position the cursor in the appropriate text box.

Image

Display images in the dialog.

The following topics are covered below:

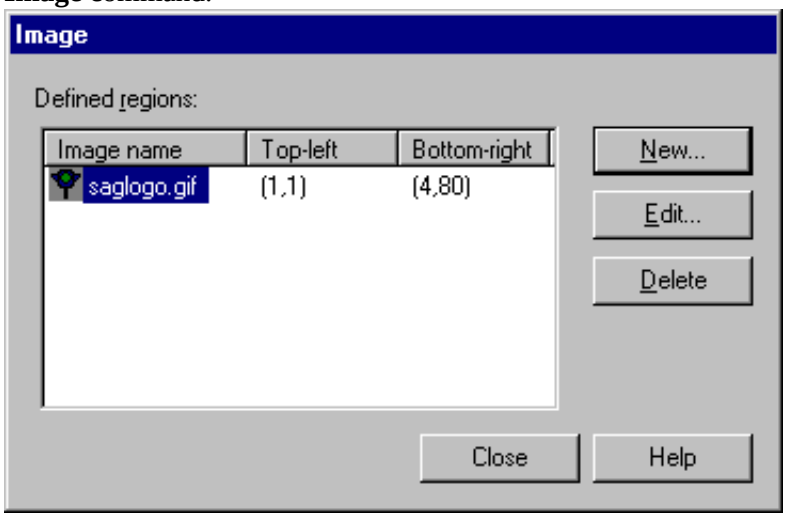
- Maintaining the Image Rules
- Overview of Options
- Defining Constant and Dynamic Images

Maintaining the Image Rules

The images can be stored in any folder of the rules repository. See General Information on Image Files in the SDK documentation.

To display all defined Image rules

- From the **Basic** menu, choose **Image**.
  The "Image" dialog box appears. When this dialog box is shown, a check mark is shown next to the **Image** command.



  When images have already been defined, the defined regions are shown in this dialog box. The scope window then shows the outlines of all defined images.
  The color red in the symbol to the left of each defined region indicates that this rule has been disabled. A symbol with the color green indicates that the rule is enabled.

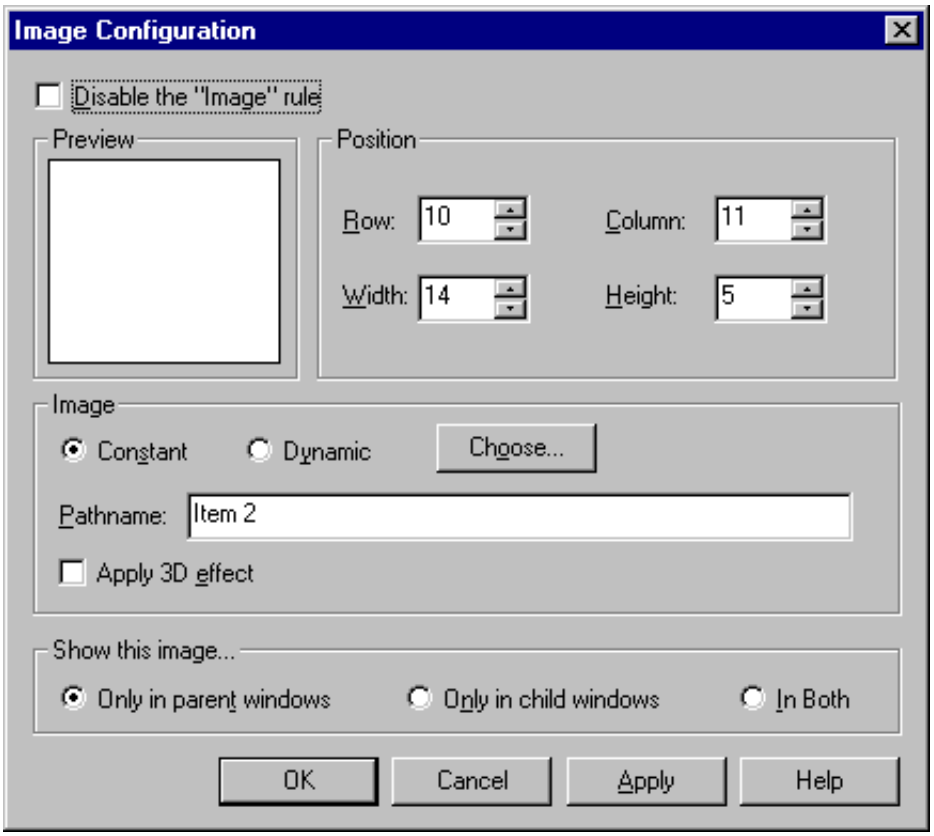
The following command buttons are available:

New	Add a new Image rule (see below).
Edit	Modify the selected Image rule. Alternative: double-click an Image rule.
Delete	Delete the selected Image rule. Alternative: choose **Delete** from the **Edit** menu or press DEL to delete the selected Image rule.

To add an Image rule

1. Make sure that the screen file that is to be used as a template is shown in the scope window.
2. Display the "Image" dialog box as described above.
3. Choose the **New** button.
4. In the scope window, use the mouse to select the region that is to contain the image.
   The "Image Configuration" dialog box appears.
5. Specify all required information as described below.
6. Choose the **OK** button.

Overview of Options



Disable the Image rule

When this check box is selected, this Image rule is disabled.

Preview

Only applies to constant images. Shows the image defined in the "Pathname" text box.

Position

The dialog position (row, column, width and height) at which the image is to be inserted. This is the region that has been selected using the mouse. Using the spin buttons, you can manually adjust the values.

Constant / Dynamic / Pathname

Select one of the following option buttons: "Constant" or "Dynamic". See the description below for further information.

Apply 3D effect

When this check box is selected, the image is shown with a 3D effect.

Show this image

Select an option button to define whether the image is to be shown

- only in parent windows,
- only in child windows, or
- in both parent and child windows.

Defining Constant and Dynamic Images

A constant image always shows the content of the same file.

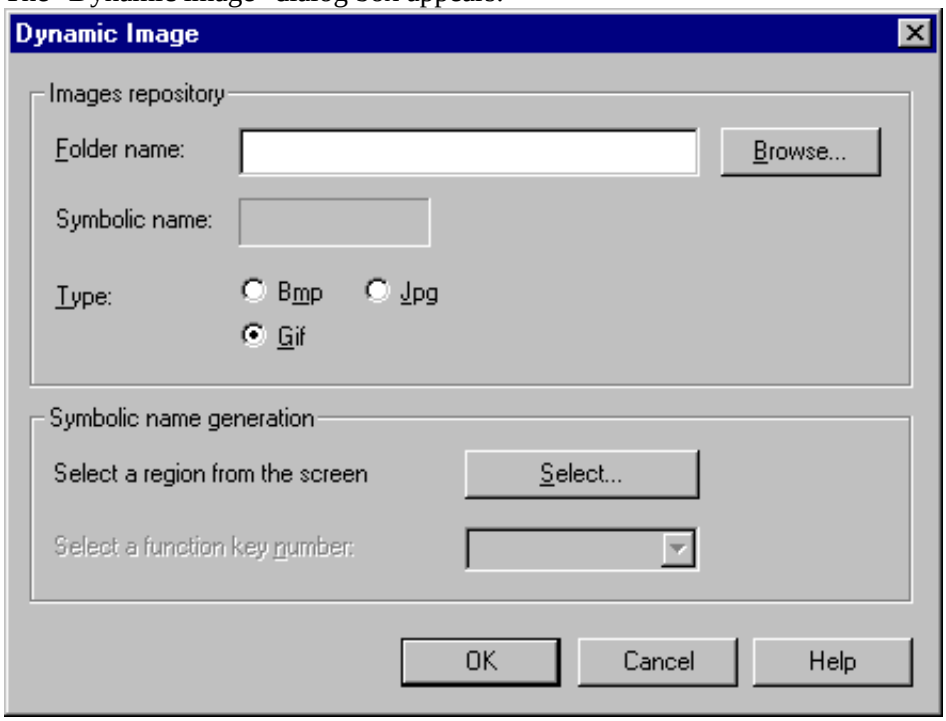
A dynamic image shows the content of a file that has the same name as the string that is found in the defined region of the screen. For example, when the content of this field is a user ID, an image that has the same name as this user ID will be displayed.

To define a constant image

1. Select "Constant" option button.
2. Choose the **Choose** button.
   The "Open" dialog box appears.
3. Select the desired image.
4. Choose the **Open** button.
   The path is now shown in the "Pathname" text box.

To define a dynamic image

1. Select the "Dynamic" option button.
2. Choose the **Choose** button.
   The "Dynamic image" dialog box appears.



   Specify a folder in your rules repository (relative to the root folder of the rules repository), or choose the **Browse** button to select the folder from a dialog box.
   This is the folder containing your image files.
3. Select the desired type (Bmp, Gif or Jpg).
   This is the extension of the image files that are to be used.
4. Choose the **Select** button.
5. Select a region in the scope window.
   The content of this region is then used to display an image with the same name as the character found in the defined region. The location of the defined region is now shown in the "Symbolic name" text box. It is enclosed in percent (%) signs.

   Note:
   The "Select a function key number" drop-down list box is not available for this rule.

6. Choose the **OK** button.
   The path is now shown in the "Image Configuration" dialog box.

Item

Move text from the character screen to the title bar or status bar.

The following topics are covered below:

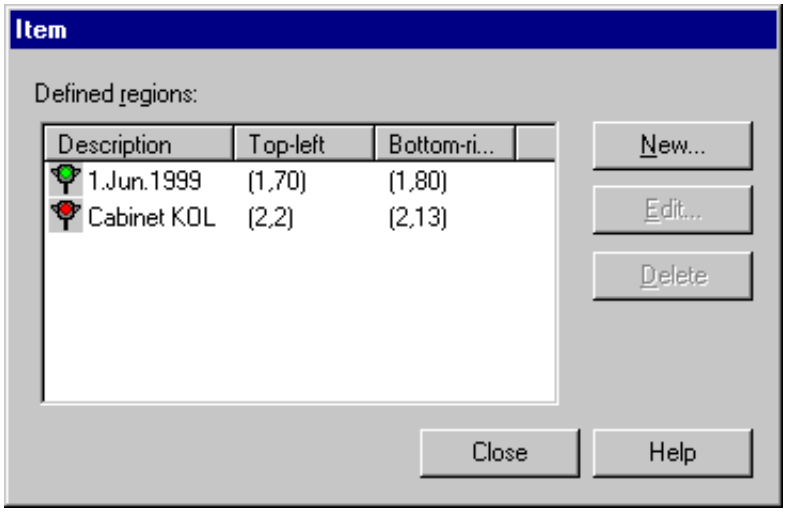
- Maintaining the Item Rules
- Overview of Options

Maintaining the Item Rules

You have to specify the region which contains the desired text. The text in the defined region will no longer be shown in its original position. It can be moved to the status bar, the window title or the dialog title. It is also possible that specific regions are not shown at all.

To display all defined Item rules

- From the **Basic** menu, choose **Item**.
  The "Item" dialog box appears. When the "Item" dialog box is shown, a check mark is shown next to the **Item** command.



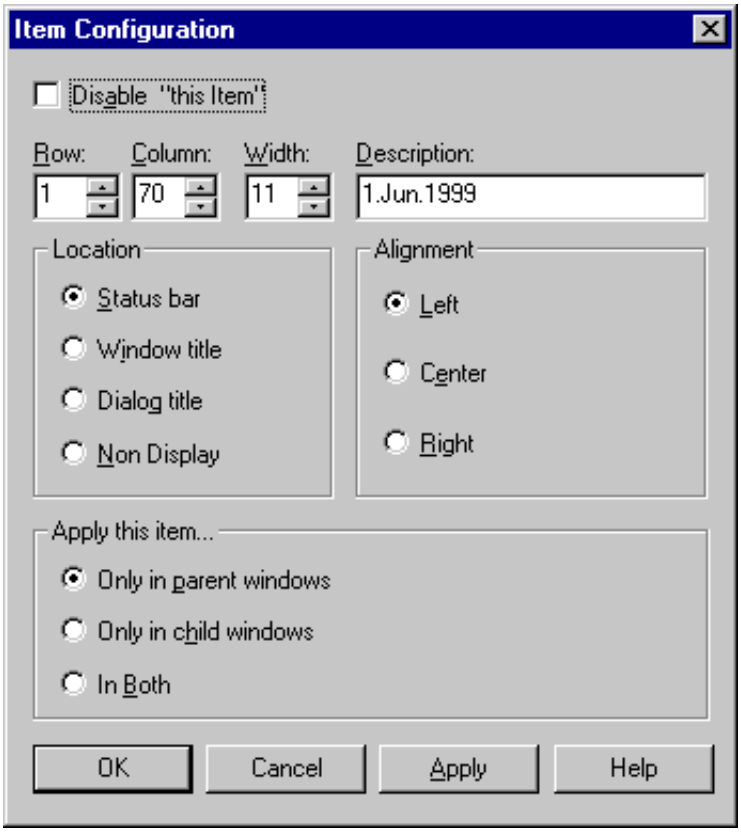
When items have already been defined, the defined regions are shown in this dialog box. The scope window then shows the outlines of all defined items.
The color red in the symbol to the left of each defined region indicates that this rule has been disabled. A symbol with the color green indicates that the rule is enabled.
The following command buttons are available:

New	Add a new Item rule (see below).
Edit	Modify the selected Item rule. Alternative: double-click an Item rule.
Delete	Delete the selected Item rule. Alternative: choose **Delete** from the **Edit** menu or press DEL to delete the selected Item rule.

To add an Item rule

1. Make sure that the resource file that is to be used as a template is shown in the scope window.
2. Display the "Item" dialog box as described above.
3. Choose the **New** button.
4. In the scope window, use the mouse to select the region in which this rule is to be applied.
   The "Item Configuration" dialog box appears.
5. Specify all required information as described below.
6. Choose the **OK** button.

Overview of Options



Disable this Item

When this check box is selected, this Item rule is disabled.

Row / Column / Width

The position of the selected region. Using the spin buttons, you can manually adjust the values.

Description

The text found in the selected region is automatically provided as a description. This helps to identify the different Item rules.

Location

Select one of the following option buttons to specify where the text found in the defined region is to be shown:

- **Status bar**
  The text is shown at the left, center or right of the status bar, depending on the option button selected in the "Alignment" group box.
- **Window title**
  The text is shown in the title bar of the viewer window (instead of "Entire Screen Builder" which is shown by default).
- **Dialog title**
  The text is shown in the title bar of the viewer window. When a window title has also been defined, it is shown behind the window title.
- **Non Display**
  The text is not shown at all.

Alignment

Only available when the option button "Status bar" is selected. Select one of the option buttons in this group box to specify whether the text is to be shown at the left, center or right of the status bar.

Apply this item

Select one of the following option buttons to specify where this rule is to be applied:

- Only in parent windows
- Only in child windows
- In both

Lines

Convert lines in the character screens to Windows lines. For example:

The following topics are covered below:

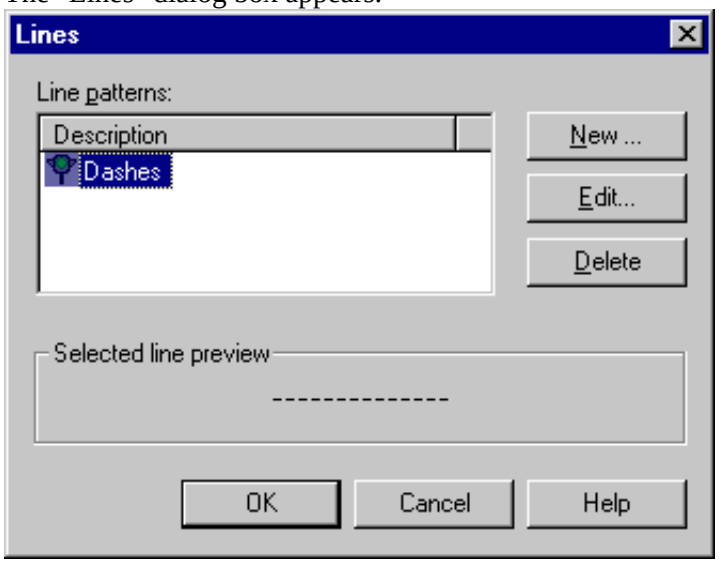
- Maintaining the Lines Rules
- Overview of Options
- Examples

Maintaining the Lines Rules

You have to define a pattern for each line that you want to convert to a Windows line.

To display all defined Lines rules

- From the **Basic** menu, choose **Lines**.
  The "Lines" dialog box appears.



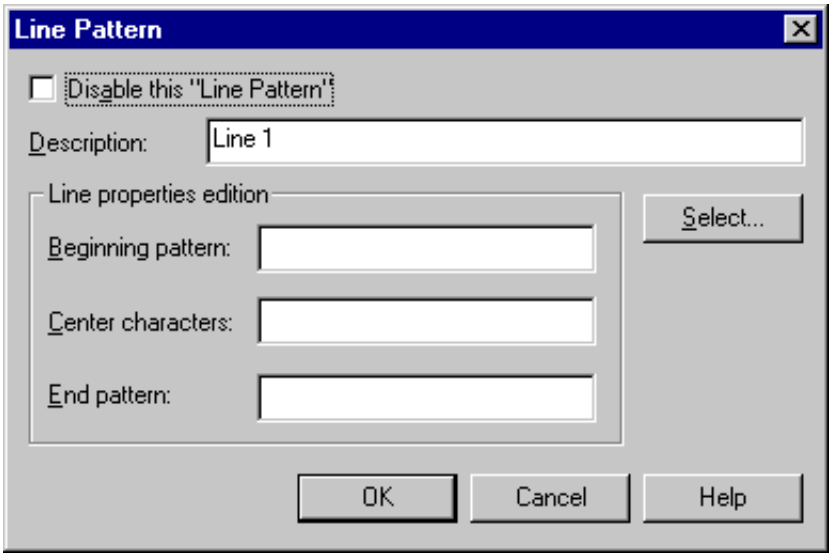
When patterns have already been defined, the description of each pattern is shown in this dialog box.
When you select a description, the defined pattern is shown at the bottom of the dialog box.
The color red in the symbol to the left of a description indicates that this rule has been disabled. A symbol with the color green indicates that the rule is enabled.
The following command buttons are available:

New	Add a new Line rule (see below).
Edit	Modify the selected pattern for a Line rule. Alternative: double-click a pattern for a Line rule.
Delete	Delete the selected Line rule.

To add a Line rule

1. Display the "Lines" dialog box as described above.
2. Choose the **New** button.
   The "Line Pattern" dialog box appears.
3. Specify all required information as described below.
4. Choose the **OK** button.

Overview of Options



Disable this Line Pattern

When this check box is selected, this rule is disabled.

Description

Enter a description for this pattern. A default description is automatically provided.

Beginning pattern

Defines the character that is used in the character screen for the beginning of the line. You can enter one or more characters in this text box.

Center characters

Defines the character that is used in the character screen for the center of the line. You can enter one or more characters in this text box.

End pattern

Defines the character that is used in the character screen for the end of the line. You can enter one or more characters in this text box.

Select

This command button invokes the "Characters selector" dialog box. Instead of typing the characters in the corresponding text boxes, you can also select them from this dialog box. Before choosing a character, position the cursor in the appropriate text box.

Examples

The following table gives examples for defining the rules for different types of line:

	Example 1	Example 2
Line in character screen	----------	<<<======>>>
Beginning pattern	--	<<<
Center characters	-	=
End pattern	-	>>>

Hint:
If you want to prevent dashes or hyphens to be converted to lines, enter one or more minus characters as the beginning, center or end pattern.

Map Detection

Identify a screen in which rules are to be applied in map scope. This rule is only available in application scope.

The following topics are covered below:

- Maintaining the Map Detection Rules
- Overview of Options

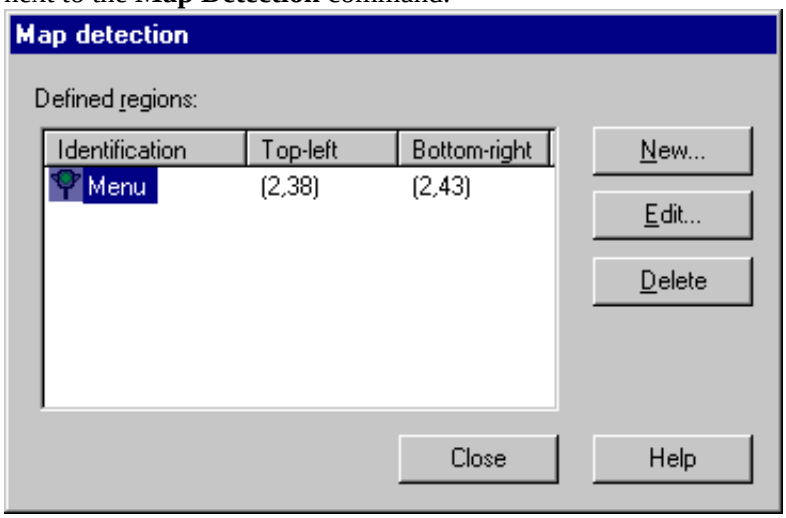
Maintaining the Map Detection Rules

You have to define the region in the screen that is to be used to detect the screen.

When a screen that has been defined with the Map Dectection rule is detected, the rules defined for application scope are not applied. Instead, the rules defined for map scope (i.e. for this screen) are applied.

To display all defined Map Detection rules

- From the **Basic** menu, choose **Map Detection**.
  The "Map Detection" dialog box appears. When this dialog box is shown, a check mark is shown next to the **Map Detection** command.



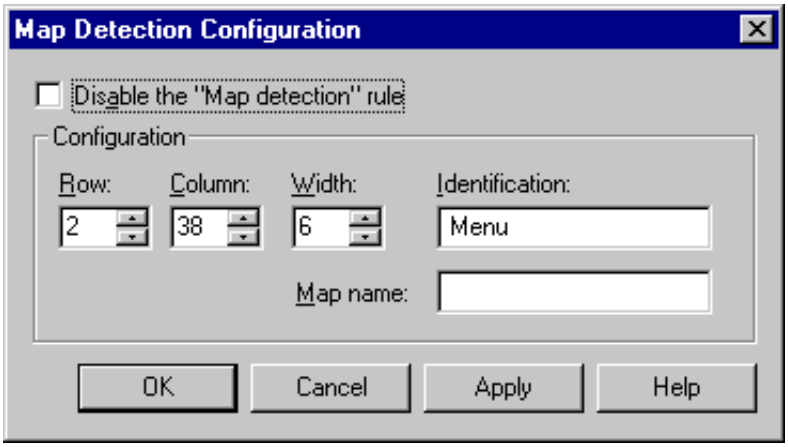
  When Map Detection rules have already been defined, the identification for each region is shown in this dialog box. The scope window then shows the outlines of all defined Map Detection rules.
  The color red in the symbol to the left of a defined region indicates that this rule has been disabled. A symbol with the color green indicates that the rule is enabled.
  The following command buttons are available:

New	Add a new Map Detection rule (see below).
Edit	Modify the selected Map Detection rule. Alternative: double-click a Map Detection rule.
Delete	Delete the selected Map Detection rule. Alternative: choose **Delete** from the **Edit** menu or press DEL to delete the selected Map Detection rule.

To add a Map Detection rule

1. Make sure that the resource file that is to be used as a template is shown in the scope window.
2. Display the "Map Detection" dialog box as described above.
3. Choose the **New** button.
4. In the scope window, use the mouse to select the region which contains the string that is to be used to detect the screen.
   The "Map Detection Configuration" dialog box appears.
5. Specify all required information as described below.
6. Choose the **OK** button.

Overview of Options



Disable the Map Detection rule

When this check box is selected, this Map Detection rule is disabled.

Row / Column / Width

The position of the string that is to be used to detect the screen. This is the region that has been selected using the mouse. Using the spin buttons, you can manually adjust the values.

Identification

This is the string that has been selected using the mouse. This string is used to detect the screen on which the rules for map scope are to be applied.

Map name

Specify the name that is to be used for map scope. The name can be up to 8 characters long. An "ini" file with this name is created in the folder that has been created for application scope. This map name is then available in the "Open Scope" dialog box. See Using Different Scopes in the SDK documentation for further information.

You can now close the current application scope and open map scope. All rules that you define in map scope are written to the "ini" file that has been created for this map.

Message Line

Display the message line in the status bar or in a specific line of the dialog.

If the message line contains an input field, it is not moved to another position.

Note for BS2000:
On BS2000 hosts there may be an input field at the end of the message line. To remove this input field, use the Natural commands `%t=9756` and `%KN`. To change this back, use `%t=9750` and `%KS`.

The following topics are covered below:

- Maintaining the Message Line Rule
- Overview of Options

Maintaining the Message Line Rule

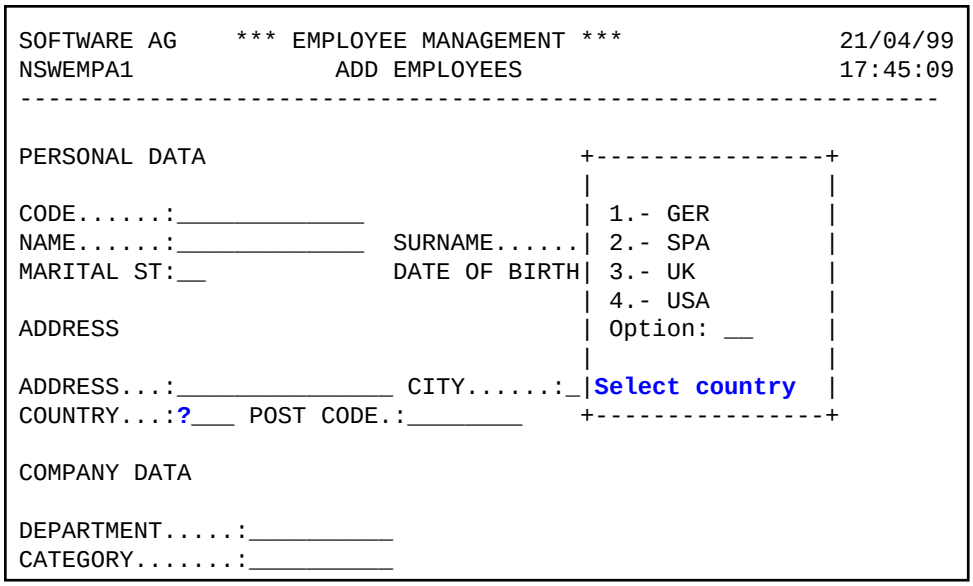
The text from the message line can be moved to the status bar or to a specific line of the dialog.

The viewer needs to know where the message line is shown in the character screen so that it can be moved to the status bar or a specific line in the dialog.

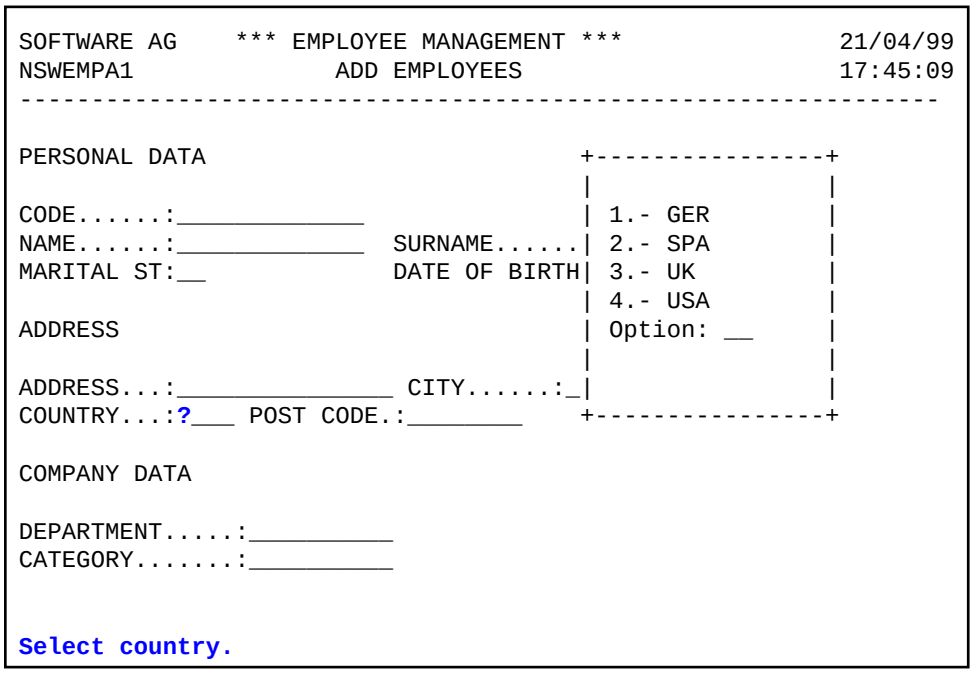
Example 1 - The message line appears in the bottom of the main screen:

```
SOFTWARE AG    *** EMPLOYEE MANAGEMENT ***              21/04/99
NSWEMPA1             ADD EMPLOYEES                      17:45:09
-----------------------------------------------------------------

PERSONAL DATA

CODE......:_____________
NAME......:_____________  SURNAME........:___________________
MARITAL ST:__             DATE OF BIRTH..:__ __ __

ADDRESS

ADDRESS...:_______________ CITY......:_____________________
COUNTRY...:___ POST CODE.:________

COMPANY DATA

DEPARTMENT.....:__________
CATEGORY.......:__________


CODE field is mandatory.
```

Example 2 - The message line appears in the bottom of a child window (help routine):



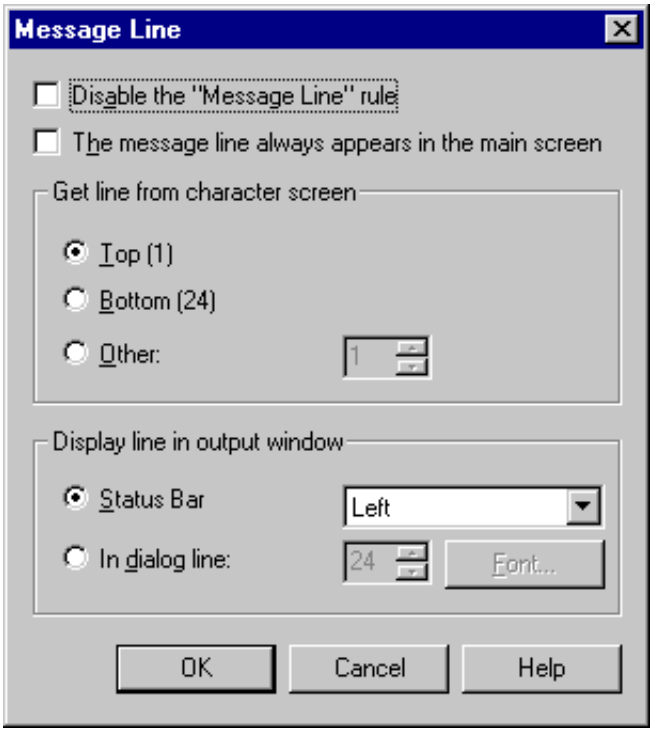
Example 3 - The message line appears in the bottom of the main screen (help routine):



To define the Message Line rule

1. From the **Basic** menu, choose **Message Line**.
   The "Message Line" dialog box appears.
2. Specify all required information as described below.
3. Choose the **OK** button.

Overview of Options



Disable the Message Line rule

When this check box is selected, the Message Line rule is disabled.

The message line always appears in the main screen

When this check box is selected, the viewer assumes that the message line is always shown in the main screen. When this check box is not selected, the Application Viewer gets the message line from the last detected main screen or child window.

Get line from character screen

So that the message line can be detected on a mainframe, you have to specify its location in the character screen. Select one of the following option buttons:

- **Top**
  The message line is located in the first line of the screen.
- **Bottom**
  The message line is located in the 24th (i.e. the last) line of the screen.

- **Other**
  Use the spin box to specify the number of any other line (1 to 24).

When working with Natural UNIX or Natural OpenVMS, the message line is detected automatically.

Display line in output window

Select one of the following option buttons to specify where the message line is to appear:

- **Status bar**
  The information from the message line is shown in the status bar of the Application Viewer. Use the drop-down list box to specify whether the message line is to appear at the left, right or center of the status bar.
- **In dialog line**
  The information from the message line is shown in a specific line of the dialog. Use the spin box to specify the number of the line (1 to 24). If you want to define another font and/or color for the message line, choose the **Font** button and specify all required options in the resulting "Font" dialog box.

User Exit

Define a DLL containing user exits.

When a user exit has been defined, the viewer will then call the functions NSWBefore and NSWAfter for each received and sent screen. See the User Exits documentation for further information.

To define the DLL containing the user exits

1. From the **Basic** menu, choose **User Exit**.
   The "User Exit" dialog box appears. When a DLL has already been defined, the corresponding path is shown in this dialog box.

2. To define a DLL, specify the path to the DLL in the text box, or choose the **Browse** button to select the DLL from the "Open" dialog box..
   Or, if the defined DLL is no longer to be used, select the "Disable the User Exit rule" check box.
3. Choose the **OK** button.