

Terminal Emulation

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- Modifying the Font
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See also SPoD-Specific Limitations and Considerations in the Natural Single Point of Development documentation.

Purpose of the Terminal Emulation

The terminal emulation enables you to test a complete application inclusive of its character output, without having to leave Natural Studio.

A screen output of an executed program will automatically cause the terminal emulation window to be opened and to be closed again when the program terminates (logically, the development server session reaches the NEXT level). The terminal emulation window cannot be closed manually using the Close button.

Natural for Mainframes utilities for which Natural Studio does not offer a graphical user interface are made available by the terminal emulation. Entering the corresponding system command in Natural Studio's command line will automatically open the terminal emulation window.

Working in the Terminal Emulation Screen

In the terminal emulation screen, you can use both mouse and keyboard. To change the cursor position, use the standard keys (e.g., TAB or the arrow keys) or the mouse. To use a host function key, press the terminal emulation key assigned to this function key. To simulate the Enter key, double-click at any position in the terminal emulation screen. Otherwise, you can use your keyboard to enter data as normal.

Transferring Data Using the Clipboard

Using the commands from the **Edit** menu, you can copy or cut a terminal emulation screen (or part of it) and paste it somewhere else (for example, in another terminal emulation screen or in a PC application, such as, Microsoft Word). You can also copy or cut text from a PC application and paste it in a terminal emulation screen. Cut or copied data is stored on the Windows clipboard.

You must first select the desired text before you can use the **Cut**, **Copy** or **Append Copy** command.

The following rules apply for a terminal emulation screen:

- You can only cut text from unprotected fields. If protected fields have been selected, they are copied.
- When you use the **Cut** or **Copy** command, the content of the clipboard is deleted and replaced with the new text. If you want to add data to the clipboard, you must use the **Append Copy** command.
- When you use the **Append Copy** command, the content of the clipboard is not deleted. The selected text is inserted behind already existing text on the clipboard. When you then choose the **Paste** command, the whole content of the clipboard is inserted at cursor position.

- You can only paste text into unprotected fields. If the field is not long enough, it is filled up to its maximum size and the remaining text is inserted in the next unprotected field. Example: the text to be pasted is DISPLAY and the cursor is located in a two character long input field. In this case, only the first two characters (DI) are pasted into the input field.

Unless indicated otherwise, the left mouse button is always used. The **right** mouse button is used to select the **Edit** menu commands from a context menu.

▶ **To select part of a terminal emulation screen**

1. Move the mouse pointer to the beginning of the text you want to select.
2. Press and hold down the left mouse button.
3. Drag the mouse until all desired text is selected.
4. Release the mouse button.
This clears any previous selection. You can now cut, copy or append the selected text.

▶ **To select the entire content of the terminal emulation screen**

- From the **Edit** menu, choose **Select All**.
Or press CTRL+A.
A box outline is shown around the terminal emulation screen.
You can now cut, copy or append the selected text.

▶ **To clear the selection**

- Click another screen position.
The existing selection is canceled.

▶ **To delete the selection**

- From the **Edit** menu, choose **Clear**.
Or press DEL.
The selection is deleted (except protected fields). It is not transferred to the clipboard.

▶ **To copy the selection and append it after existing text in the clipboard**

- From the **Edit** menu, choose **Append Copy**.
The selection is copied to the clipboard and appended after already existing text.

▶ **To cut the selection and transfer it to the clipboard**

- From the **Edit** menu, choose **Cut**.
Or press CTRL+X.
Or click the following toolbar button:



The selection is deleted and transferred to the clipboard. Exception: protected fields are not deleted; they are copied.

▶ **To copy the selection to the clipboard**

- From the **Edit** menu, choose **Copy**.
Or press CTRL+C.
Or click the following toolbar button:



▶ To paste the content of the clipboard into a terminal emulation screen

1. Move the cursor to the position at which the text is to be inserted.
2. From the **Edit** menu, choose **Paste**.
Or press CTRL+V.
Or click the following toolbar button:



The content of the clipboard is inserted at cursor position.

Modifying the Font

You can define another font to be used for the current session directly from the terminal application. Your new font definition is stored for the next session.

▶ To modify the font

- From the **Session** menu, choose **Font**.
The "Fonts" dialog box appears:

The "Fonts" dialog box lets you define the font that is to be used for terminal emulation.

Font	The list box shows all installed monospaced fixed fonts and TrueType (scalable) fonts.
Size	The sizes available for the selected font are displayed in this list box. For a TrueType font, one or more entries named "TrueType" can be shown. Select one of these entries to display the corresponding style in the "Sample" field.
Adjust the font size to the window size	This feature applies to raster fonts only. For TrueType fonts, automatic resizing is always enabled. Select this check box to adjust the size of the selected font to the window size. Adjusting the font size is done by increasing or reducing the spacing between characters and lines. This may result in truncated characters.

Modifying the Color Scheme

You can define another color scheme to be used for the current session directly from the terminal application. Your modifications are stored for the next session.

▶ To activate another color scheme

1. From the **Session** menu, choose **Color**.
The "Color Selection" dialog box appears.
The active color scheme is indicated by an arrow.
2. Select the color scheme you want to activate.
3. Choose the **OK** button.

Command Buttons

Besides activating another color scheme, you can also create, modify, delete or duplicate a color scheme directly from the terminal application. To do so, use one of the following command buttons in the "Color Selection" dialog box:

Modify	Modifies the selected color scheme. You can only modify the color scheme which is currently active. If you select another color scheme, you are asked whether you want to make the selected color scheme active in order to continue.
New	Creates a new color scheme. Specify a name for the new color scheme in the resulting dialog box and choose the OK button. You are then asked whether you want to make the new color scheme active in order to modify it.
Delete	Deletes the selected color scheme. You are asked to confirm the deletion.
Duplicate	Creates a copy of the selected color scheme. Specify a name for the copy in the resulting dialog box and choose the OK button. You are then asked whether you want to make the copy active in order to modify it.

Printing the Contents of the Terminal Emulation Screen

You can print the contents of the terminal emulation screen on a printer that is defined under Windows.

▶ To preview the screen to be printed

1. From the **Session** menu, choose **Print Preview**.
The print preview window appears.
2. Optionally: use the **Zoom In** and **Zoom Out** buttons to view the information in this window. Or choose the **Print** button to invoke the "Print" dialog box.
3. To return to the terminal emulation screen, choose the **Close** button.

▶ To print the screen contents

1. From the **Session** menu, choose **Print**.
Or press CTRL+P.
The "Print" dialog box appears.
2. Choose the **OK** button to print the current screen.

Terminal Emulation Keys

Keys such as PF1 to PF24, PA1 to PA3, etc. that start a terminal function can be invoked either by clicking the corresponding symbol or by using a combination of keys on the keyboard, for example:

▶ To choose the CLR (clear) key using the PC keyboard

- Press CTRL+F1.

▶ To choose the PF1 key using the PC keyboard

- Press F1.

▶ To choose the PF13 key using the PC keyboard

- Press SHIFT+F1.

Terminal Keyboard	PC Keyboard		
	SHIFT	CTRL	(Single) Key
CLR		X	F1
ENTR		X	F2
EEOF		X	F3
ERI		X	F4
INS		X	F5
NLIN		X	F6
HOME		X	F7
PA1		X	F8
PA2		X	F9
PA3		X	F10
PF1-12			F1-F12
PF13-24	X		F1-F12
RESET		X	F11

Using Non-Latin Character Sets

By default, the terminal emulation uses a latin character set. You can define a different character set (e.g. Cyrillic) to be used for the terminal emulation.

To use a different character set

1. From the menu bar, choose **Tools > Options** and select the "Workspace" tab.
2. From the "Translation Table" selection box, select the desired character set.
3. Choose the **OK** button.

Your new definition is immediately active and is stored for the next session. In addition, you may have to modify the font of the terminal emulation accordingly, see Modifying the Font.