

## Introduction

A machine manufacturer often delivers a machine to a country where English is understood but where it is not the native language. By means of the text editor, SYMPAS provides the possibility to translate a complete text into a language other than English. The instruction `DISPLAY_TEXT_2` allows a field engineer from the country of manufacture to switch back to the original language and to operate and maintain the machine using this language.

## Advantages of this Procedure

- The person setting up the machine in the country of the operator can create the text himself.
- If it turns out that a text is unsatisfactory, the person setting up the machine has the possibility to modify the text at any time. This way, expensive software updates are not necessary anymore.
- No translation costs for the machine manufacturer.
- The translation is unambiguous because the translator is familiar with the functions of the machine.

## Application

The SYMPAS text editor can be used for all PROCESS-PLCs available by Jetter (Mikro, PASE-E, NANO, DELTA). The text editor is written as platform-independent SYMPAS function and can therefore also be integrated into already existing SYMPAS programs.

Two SYMPAS files for the DELTA controller family are attached to this application note. These two files can be executed directly:

- Textedit.ppd
- Textedit.sym

## Integration into own Programs

In order to integrate the functions into own programs, select the function block (without the main program at the end of the source text) and save it with the SYMPAS instruction "*Save block...*".

A new data suffix must then be assigned to this source text block according to the target controller family:

Target controller family	File suffix
DELTA	.ppd
Mikro	.ppm
NANO-A	.pna
NANO-B	.pnb
NANO-C	.pnc
PASE - E	.ppe
PC-PPLC	.ppc

The file suffix of the symbol file Textedit.sym is not modified.

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Import the source code block to your own program with the SYMPAS instruction "*Load block...*".  
Likewise, import the symbol file to your own symbol file.  
Do not forget to adapt the symbol definitions (e.g. the special flags for keys F1 to F5) to your controller if they differ.

Call the text editor from your program using the instruction shortcut "*TE*" which creates a function call "`Texteditor [pTextStart=...]`". The text editor needs the indirectly addressed start register number of a predefined text register as parameter.  
(For more information on text registers, please refer to [APN\\_007\\_Textregister\\_e.pdf](#))

## Operation



The length of a text cannot be modified by means of the text editor.

The user can only create longer texts when the original text contains an according number of space characters.

The display on user interfaces and display units is optimized with two lines and 24 characters per line but can be adapted to individual requirements at any time. The SYMPAS text editor is operated using the following five function keys:

- F1:** One character to the left (if the cursor is positioned on the first character, it jumps to the last one); the key has no repeat function
- F2:** One character to the right (if the cursor is positioned on the last character, it jumps to the first one); the key has no repeat function
- F3:** Scroll characters forward; the key has a repeat function
- F4:** Scroll characters backward; the key has a repeat function
- F5:** Exit

## Internal Operating Principle of the Text Editor

The address of a text register is indirectly transferred as parameter to the SYMPAS main function `TextEditor`.



The text in the text register specified here will really be modified!

Therefore it is advisable to create a DA file of all sentences of the text upon delivery of the machine.

Within the `TextEditor` function, local variables are used (the variable name starts with a lowercase *v*) which do not affect the user register memory of the controller.

The `TextEditor` function itself calls functions that work with local variables. When doing so, a parameter is transferred (parameters are indicated by a lowercase *p* at the beginning).  
Therefore, it is necessary to integrate all functions belonging to the SYMPAS TextEditor into the own program.

Below a list with all functions relevant to the SYMPAS TextEditor:

SYMPAS function	Task	Return value
CharPlus	Scroll forward by one character	ASCII code of the next character
CharMinus	Scroll backward by one character	ASCII code of the previous character
CursorRight	Move cursor to the right by one character	Cursor position on the right of the cursor
CursorLeft	Move cursor to the left by one character	Cursor position on the left of the cursor
WriteChar	Replace the character defined by two parameters by the character that is also transferred as parameter	None
GetChar	Read the ASCII code of the character that is defined by two parameters	ASCII code of the character defined by two parameters
Byte	Determine the byte of the character at the cursor position that is transferred as parameter	0: least significant byte, 1: middle byte, 2: most significant byte
Register	Determine the register number in which the character where the cursor position transferred as parameter is located	Register number in which the character where the cursor position transferred as parameter is located
TextEditor	Edit text	None

The current cursor position is indicated by a blinking block.

Scroll the characters forward and backward using the F3 and F4 keys. Characters 32 (space character) to 122 (lowercase z) are available for selection. This selection can be expanded via the program.

The two characters underscore (clear screen) and dollar sign (delete until end of line) cannot be displayed and can therefore not be selected.