

## CHAR type variables

**CHAR** (*character*) types are suitable for storing a single letter each. The original CHAR uses codes from the ancient **ASCII** character mapping table. This table contains a mix of 255 different characters (letters, numbers, control characters, graphic symbols). Its advantage is that it requires only 1 byte, but its disadvantage is that the character set is quite limited; for example, Hungarian or Chinese accented characters are mostly excluded.

The extended version of CHAR is **WCHAR** (wide-character), which has a 2-byte length but can be used more broadly with its (**UNICODE**) UCS-2 mapping. Up to 65,535 character mappings can be encoded with 16 bits; UNICODE does not fully utilize this range.

When declaring an operand of data type WSTRING you can define its length using square brackets (for example WSTRING[10]). If you do not specify a length, the length of the WSTRING is set to 254 characters by default.

Type	Name	Bit	Code table	Value range HEX	Value range DEC	Example
<b>CHAR</b>	character	8	ASCII	0 .. FF	0 .. 255	'P', CHAR#'P'
<b>WCHAR</b>	Wide character	16	UCS-2	\$0000 - \$D7FF	0 .. 55.295	WCHAR#'Ó'

## Special characters

A character string can also contain special characters. The escape character \$ is used to identify control characters, dollar signs and single quotation marks.

Character	Hex	Meaning	Example
<b>\$L or \$l</b>	000A	Line feed	'\$LText', '\$000AText'
<b>\$N</b>	000A and 000D	Line break The line break occupies 2 characters in the character string.	'\$NText', '\$000A\$000DText'
<b>\$P or \$p</b>	000C	Page feed	'\$PText', '\$000CText'
<b>\$R or \$r</b>	000D	Carriage return (CR)	'\$RText', '\$000DText'
<b>\$T or \$t</b>	0009	Tab	'\$TText', '\$0009Text'
<b>\$\$</b>	0024	Dollar sign	'100\$\$t', '100\$0024t'
<b>\$'</b>	0027	Single quotation mark	'\$'Text\$', '\$0027Text\$0027'

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