



Rocket Uniface Library 10.4

Extracting Values From String Data

When you are working with data stored as a string, you can extract substrings from the total string. This extraction is done by specifying the offset within the string, indicating from which position you want to extract the substring.

The format for this is:

Source [Start { : Num | , End }]

Table: String Extraction Parameters

Parameter	Meaning
Start	Position number from which to start extracting.
, End	Position number at which to stop extracting.
: Num	The number of positions to extract from start .

Remember to take great care in the naming of local variable used as the string extraction parameter. A single lettered variable name of one of the following letters, IFRYMDHNSTAWX, will generate a warning. They will be ignored as they represent a mathematical or date function (see previous sections). These mathematical and date functions have precedence before any other values.



Note: Using string extraction on a string containing Uniface frame markers will not copy the frame markers. You must copy the whole string with an assignment statement.

Rules for String Extraction

The following rules apply when string extraction is performed:

- The first position in the string is always numbered 1.
- The resulting string is always empty (that is, an empty string is returned) if any of the following are true:
 - *Start*, *End*, or *Num* is less than 1
 - *Start* is greater than *End*
 - *Start* is greater than the available number of characters
- *Start*, *End* or *Num* can be a constant, a variable, **\$status**, **\$result**, or an expression. For example, the following is a legal statement:

```
$1 = NAME[$result+1]
```

- If *End* or *Num* has a value greater than the available character positions, the characters are extracted to the end of the string.
- If string extraction is used on a nonstring source (for example, on a Date or Numeric field), the value is first converted to string format according to the default display format.
- If string extraction is applied to a field containing subfields, for the purposes of the extraction, Uniface treats the contents of the complete field as a single string (including the subfield separators as part of the string).
- If string extraction is applied to a string that contains operators and opening braces (such as +, -> and {}), these are treated as strings unless the expression is enclosed in parentheses.
- String extraction always has a lower priority than indirection. For example, the following statement combines

indirection and string extraction:

```
$2 = @$1[2:5]
```

is equivalent to the following statements:

```
$TEMP$ = @$1  
$2 = $TEMP$[2:5]
```

Other ProcScript Instructions

In addition to string extraction, Uniface provides the **\$length** and **\$scan** instructions. The **\$length** instruction determines the length of a string and the **\$scan** instruction returns the starting position of a string or pattern in the source string.

Table: Examples using string extraction

Statement	Meaning	Result
NAME = "HOLLERITH"		
\$1 = NAME[4,8]	Extract positions 4 through 8	LERIT
\$1 = NAME[3:3]	Extract positions 3 through 5	LLE
\$10 = 2		
\$1 = NAME[\$10:4]	Extract positions 2 through 5	OLLE
\$1 = NAME[3]	Extract positions 3 though 9	LLERITH
length NAME	Get length of NAME	9
\$1 = NAME[\$result]	Extract last character of NAME	H
scan NAME, "LL?"	Get position of string matching 'LL?'	3
\$10 = \$result+2	Get position of character following 'LL'	5

Statement	Meaning	Result
\$1 = NAME[\$10:1]	Extract character following 'LL'	E
\$1 = "AMSTER123DAM"	\$1 contains letters and numbers	
scan \$1,"#"	Get position of first digit in \$1	7
if (\$result > 0)	\$1 contains numeric data	
\$3 = \$1[\$result]	Remove leading nondigits in \$1	123DAM
\$2 = \$number(\$3)	Convert to number	123
else		
\$2 = ""	No numeric data in \$1	
endif		
Numeric t_start		
t_start = 3		
\$1 = NAME[t_start]	Extracts position 3 through 9	LLERITH