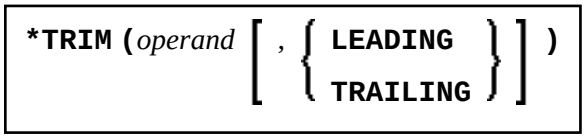
*TRIM - Remove Leading and/or Trailing Blanks



Format/length: same as *operand* (A, U or B)/DYNAMIC.

This chapter covers the following topics:

- Function
- Restrictions
- Syntax Description
- Examples

Function

The Natural system function `*TRIM` removes all leading and/or trailing blanks from an alphanumeric or a binary string. The content of the operand is not modified. When using a dynamic variable as operand, the length of this variable is adapted according to the result.

The `*TRIM` system function may be specified as an operand in any position of a statement wherever an operand of format A, U or B is allowed.

Restrictions

When using the system function `*TRIM`, the following restrictions apply:

- `*TRIM` must not be used where a target variable is expected.
- You may not nest `*TRIM` in a system function.
- If the operand is a static variable, it is not possible to remove trailing blanks using `*TRIM`, because for static variables the remaining trailing positions of the variable memory are filled with space characters.

Syntax Description

Operand Definition Table:

Operand	Possible Structure					Possible Formats											Referencing Permitted	Dynamic Definition
operand	C	S	A			A	U	B									yes	no

Syntax Element Description:

*TRIM(*operand*, LEADING)	**Remove Leading Blanks** When the keyword LEADING is used as a second argument, all leading blanks are removed from the string contained in *operand*.
*TRIM(*operand*, TRAILING)	**Remove Trailing Blanks** When the keyword TRAILING is used as a second argument, all trailing blanks are removed from the string contained in *operand*.
*TRIM(*operand*)	**Remove Both Leading and Trailing Blanks** When no keyword is used as a second argument, both the leading and the trailing blanks are removed from the string contained in *operand*.

Examples

The following examples are provided below:

- Example 1 - Using an Alphanumeric Argument
- Example 2 - Using a Binary Argument

Example 1 - Using an Alphanumeric Argument

```
DEFINE DATA LOCAL
/*****************************
/* STATIC VARIABLE DEFINITIONS
/*****************************
1 #SRC  (A15) INIT <'  ab  CD  '>
1 #DEST (A15)

/* FOR PRINT OUT WITH DELIMITERS
1 #SRC-PRN  (A20)
1 #DEST-PRN (A20)

/*****************************
/* DYNAMIC VARIABLE DEFINITIONS
/*****************************
1 #DYN-SRC (A)DYNAMIC INIT <'  ab  CD  '>
1 #DYN-DEST (A)DYNAMIC

/* FOR PRINT OUT WITH DELIMITERS
1 #DYN-SRC-PRN  (A)DYNAMIC
1 #DYN-DEST-PRN (A)DYNAMIC

END-DEFINE

PRINT 'static variable definition:'
PRINT '--------------------------'
```

```
COMPRESS FULL ':' #SRC ':' TO #SRC-PRN LEAVING NO SPACE
PRINT ' '
PRINT ' 123456789012345      123456789012345'

MOVE *TRIM(#SRC, LEADING) TO #DEST
COMPRESS FULL ':' #DEST ':' TO #DEST-PRN LEAVING NO SPACE
DISPLAY #SRC-PRN #DEST-PRN '*TRIM(#SRC, LEADING)'

MOVE *TRIM(#SRC, TRAILING) TO #DEST
COMPRESS FULL ':' #DEST ':' TO #DEST-PRN LEAVING NO SPACE
DISPLAY #SRC-PRN #DEST-PRN '*TRIM(#SRC, TRAILING)'

MOVE *TRIM(#SRC) TO #DEST
COMPRESS FULL ':' #DEST ':' TO #DEST-PRN LEAVING NO SPACE
DISPLAY #SRC-PRN #DEST-PRN '*TRIM(#SRC)'

PRINT ' '
PRINT 'dynamic variable definition:'
PRINT '----------------------------'
COMPRESS FULL ':' #DYN-SRC ':' TO #DYN-SRC-PRN LEAVING NO SPACE
PRINT ' '
PRINT ' 1234567890           12345678'

MOVE *TRIM(#DYN-SRC, LEADING) TO #DYN-DEST
COMPRESS FULL ':' #DYN-DEST ':' TO #DYN-DEST-PRN LEAVING NO SPACE
DISPLAY (AL=20) #DYN-SRC-PRN #DYN-DEST-PRN '*TRIM(#SRC, LEADING)'

MOVE *TRIM(#DYN-SRC, TRAILING) TO #DYN-DEST
COMPRESS FULL ':' #DYN-DEST ':' TO #DYN-DEST-PRN LEAVING NO SPACE
DISPLAY (AL=20) #DYN-SRC-PRN #DYN-DEST-PRN '*TRIM(#SRC, TRAILING)'

MOVE *TRIM(#DYN-SRC) TO #DYN-DEST
COMPRESS FULL ':' #DYN-DEST ':' TO #DYN-DEST-PRN LEAVING NO SPACE
DISPLAY (AL=20) #DYN-SRC-PRN #DYN-DEST-PRN '*TRIM(#SRC)'

PRINT ' '
PRINT '":" := delimiter character to show the start and ending of a string!'
END
```

Output of Example 1:

```
#SRC-PRN             #DEST-PRN
-------------------- ----------------------

static variable definition:
----------------------------

 123456789012345         123456789012345
:  ab  CD       :       :ab  CD         :     *TRIM(#SRC, LEADING)
:  ab  CD       :       :  ab  CD       :     *TRIM(#SRC, TRAILING)
:  ab  CD       :       :ab  CD         :     *TRIM(#SRC)

dynamic variable definition:
----------------------------

 1234567890              12345678
:  ab  CD  :            :ab  CD  :            *TRIM(#SRC, LEADING)
:  ab  CD  :            :  ab  CD:            *TRIM(#SRC, TRAILING)
:  ab  CD  :            :ab  CD:              *TRIM(#SRC)

':' := delimiter character to show the start and ending of a string!
```

Example 2 - Using a Binary Argument

```
DEFINE DATA LOCAL
/*****************************
/* STATIC VARIABLE DEFINITIONS
/*****************************
1 #SRC  (B10) INIT <H'2020FFFF2020FFFF2020'>
1 #DEST (B10)

/*****************************
/* DYNAMIC VARIABLE DEFINITIONS
/*****************************
1 #DYN-SRC (B)DYNAMIC INIT <H'2020FFFF2020FFFF2020'>
1 #DYN-DEST (B)DYNAMIC
END-DEFINE

FORMAT LS=100

PRINT 'static variable definition:
PRINT '--------------------------'
MOVE *TRIM(#SRC, LEADING) TO #DEST
PRINT #SRC #DEST '*TRIM(#SRC, LEADING)'

MOVE *TRIM(#SRC, TRAILING) TO #DEST
PRINT #SRC #DEST '*TRIM(#SRC, TRAILING)'

MOVE *TRIM(#SRC) TO #DEST
PRINT #SRC #DEST '*TRIM(#SRC)'

PRINT ' '
PRINT 'dynamic variable definition:'
PRINT '--------------------------'

MOVE *TRIM(#DYN-SRC, LEADING) TO #DYN-DEST
PRINT #DYN-SRC #DYN-DEST '    *TRIM(#SRC, LEADING)'

MOVE *TRIM(#DYN-SRC, TRAILING) TO #DYN-DEST
PRINT #DYN-SRC #DYN-DEST '    *TRIM(#SRC, TRAILING)'

MOVE *TRIM(#DYN-SRC) TO #DYN-DEST
PRINT #DYN-SRC #DYN-DEST '        *TRIM(#SRC)'

PRINT ' '

PRINT 'hex."20" := space character'
END
```

Output of Example 2:

```
static variable definition:
---------------------------

2020FFFF2020FFFF2020 0000FFFF2020FFFF2020     *TRIM(#src, leading)
2020FFFF2020FFFF2020 00002020FFFF2020FFFF     *TRIM(#src, trailing)
2020FFFF2020FFFF2020 00000000FFFF2020FFFF     *TRIM(#src)

dynamic variable definition:
---------------------------

2020FFFF2020FFFF2020 FFFF2020FFFF2020         *TRIM(#src, leading)
```

```
2020FFFF2020FFFF2020 2020FFFF2020FFFF         *TRIM(#src, trailing)
2020FFFF2020FFFF2020 FFFF2020FFFF             *TRIM(#src)

hex.'20' := space character
```