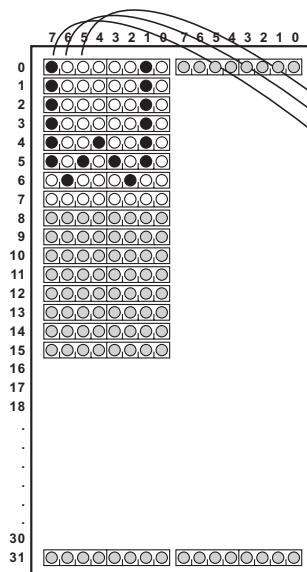


# **GRAPHIC\_ROTATE**

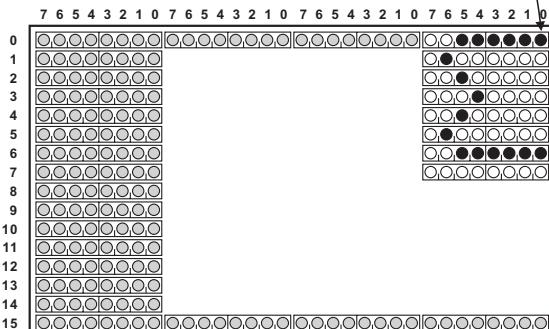
**Graphic\_Rotate ( Src, Destin\$, Width, Height )**

Function: Rotates a graphic 90° to the right.

Screen-Format: 16 x 32 Pixel



After +90° Rotation:  
Screen-Format: 32 x 16 Pixel



## **GRAPHIC\_ROTATE**

### **Parameters:**

Src

	B	W	L	S	F	
Src	●	●	●	●	-	Source graphic (STRING or FLASH address, e.g. Datalabel)
Destin\$	-	-	-	●	-	Destination with rotated pixels
Width	●	●	●	-	-	Format width in pixels: 1 ... nnnn
Height	●	●	●	-	-	Format height in pixels: 1 ... nnnn

Source graphic (STRING or FLASH address, e.g.  
Datalabel)

Destination with rotated pixels

Format width in pixels: 1 ... nnnn

Format height in pixels: 1 ... nnnn

**No function value**

Src\$ and Destin\$ must not be the same string

The source graphic must have a width multiple of 8, but GRAPHIC\_ROTATE processes all widths and heights, even if they are not a multiple of 8. In this case the length of source and destination can vary:

Screen-Format: 8 x 9 Pixel

	7	6	5	4	3	2	1	0
0	●	○	○	○	○	○	●	○
1	●	○	○	○	○	○	●	○
2	●	○	○	○	○	○	●	○
3	●	○	○	○	○	○	●	○
4	●	○	○	○	○	○	●	○
5	●	○	○	○	○	○	●	○
6	○	●	○	○	○	○	○	●
7	○	○	○	○	○	○	○	○
8	○	○	○	○	○	○	○	○

After +90° Rotation:  
Screen-Format: 9 x 8 Pixel

	7	6	5	4	3	2	1	0
0	○	○	○	●	●	●	●	○
1	○	○	●	●	●	●	●	○
2	○	○	○	●	●	●	●	○
3	○	○	○	○	●	●	●	○
4	○	○	○	○	○	●	●	○
5	○	○	○	○	○	○	●	○
6	○	○	○	○	○	○	○	●
7	○	○	○	○	○	○	○	○

## GRAPHIC\_ROTATE

Screen-Format: 9 x 8 Pixel

7 6 5 4 3 2 1 0								
0	○	○	●	●	●	●	●	●
1	○	○	●	○	○	○	○	○
2	○	○	●	○	○	○	○	○
3	○	○	●	○	○	○	○	○
4	○	○	●	○	○	○	○	○
5	○	○	●	○	○	○	○	○
6	○	○	●	●	●	●	●	●
7	○	○	○	○	○	○	○	○

After +90° Rotation:

Screen-Format: 8 x 9 Pixel

7 6 5 4 3 2 1 0								
0	●	○	○	○	○	○	○	○
1	●	○	○	○	○	○	○	○
2	●	○	○	○	○	○	○	○
3	●	○	○	○	○	○	○	○
4	●	○	○	●	○	○	○	○
5	●	○	●	●	●	●	●	●
6	○	●	○	●	○	●	○	●
7	○	○	○	○	○	○	○	○
8	○	○	○	○	○	○	○	○

The fastest way to rotate a graphic 180° is to mirror the graphic with the function **GRAPHIC\_MIRROR**. A rotation of 270° to the right or 90° to the left can be processed with a mirror (180°) and one rotation (90°).

Example of 90° rotation:

```
graphic_rotate(Src$, Dst$, width, height)
```

Example of 180° rotation:

```
graphic_mirror(Src_Dst$, width, height, 3)
```

## **GRAPHIC\_ROTATE**

Example of 270° rotation:

```
graphic_rotate(Source$, Destination$, width, height)
newWidth = (height + 7) BITAND $FFFFFFF8H
newHeight = width
graphic_mirror(Destination$, newWidth, newHeight, 3)
```

## Documentation History

### Documentation History

Version of Documentation	Version of TAC/TA2	Description / Changes
003	1.150	SRC in FLASH