

Scaling images

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- `$image.scale(image, scaleWidth, scaleHeight)`
- `$image.scale(image, scaleFactor)`

Scaling Quality

There are two scaling methods that you can use to scale an image using a given factor. For example, Method 1 provides height and width parameters (`scaleWidth` and `scaleHeight`), while Method 2 provides a single parameter that will scale both axes equally (`scaleFactor`). These three parameters must be positive real numbers.

`$image.scale(image, scaleWidth, scaleHeight)`

Return an image icon for an element.

	Name	Type	Description
Parameter(s)	image	com.nomagic.magicreport.Image	An image object for the element icon.
	scaleWidth	java.lang.Double	The width parameter of the image.
	scaleHeight	java.lang.Double	The height parameter of the image.
Return	-	com.nomagic.magicreport.Image	The resized image object for the element icon.

`$image.scale(image, scaleFactor)`

Return an image icon for an element.

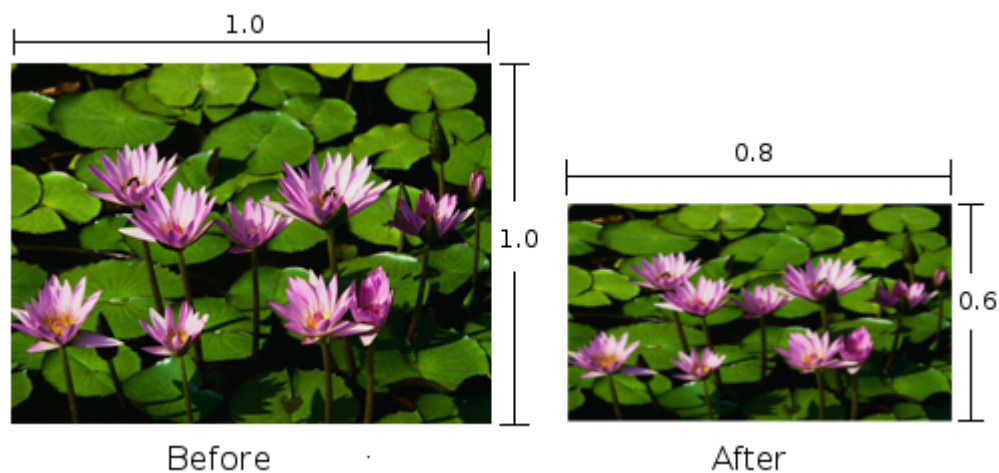
	Name	Type	Description
Parameter(s)	image	com.nomagic.magicreport.Image	An image object for the element icon.
	scaleFactor	java.lang.Double	The scaling parameter of the image.
Return	-	com.nomagic.magicreport.Image	The resized image object for the element icon.

Use `$image.scale($diagram.image, 0.5)`, for example, to scale down the image to half the original size. The following photos show the result.




Results of using the image scale function.

Use `$image.scale($diagram.image, 0.8, 0.6)` to scale the image's width down to 80% and height to 60%. The following photos show the result.



Results of using the image scale function.

**Alternative scaling methods**
The images used in generated reports can also be scaled by specifying the **Exported Image Size** property in one of the following locations:

- The **Properties** dialog, which is used to define image export properties for the **Save as Image** functionality.
- The **Environment Option** dialog. To open the dialog, in the main menu, select **Options Environment**. Image export properties are located

Scaling Quality
under the **General** group.

Because the image tool provides several methods for scaling images, the quality of the scaled image depends on the algorithm that is used. To set the image scaling quality, `$image.setScalingQuality()` code must be inserted before scaling images. For example:


```
$image.setScalingQuality(5)  
$image.scale(0.5)
```

The code above will set the image scaling quality to 'highest'. The possible values are from 1 to 5, where 5 is 'highest' and 1 is 'lowest'. The following table provides the description of each value.

Value	Description
1	'lowest' – Use one-step nearest neighbor interpolation.
2	'low' – Use one-step bi-cubic interpolation.
3	'medium' – Use multi-step, bi-linear interpolation.
4	'high' – Use area average image scaling algorithm.
5	'highest' – Use a lossless transformation when the template is ODF, DOCX, or RTF; otherwise, area average image scaling algorithm will be used instead.

Sample pictures from different image scaling qualities with their sizes scaled down to 50% are indicated in the pictures below (ranging from the value 1 'lowest' to 5 'highest'):

\$image.setScalingQuality(1)



Tips on Drawing and Creating Model Elements

Drawing Shapes

Different size shapes drawing

From the diagram toolbar, select the button to draw an element. Click on the diagram pane and drag mouse with the pressed mouse button. When element bounds will be of the desired size, release the mouse button.


Naming elements

You may quickly edit the name of any selected model element simply by pressing any letter key.

Existing element creation in diagram

1. You may drag element from Browser to diagram, or
2. Draw an element and press F2 or Space. The list of already existing elements appears. Select the name and element with the same data will be created.

\$image.setScalingQuality(2)



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\$image.setScalingQuality(3)



Tips on Drawing and Creating Model Elements

Drawing Shapes

Different size shapes drawing

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Different results of using the image set scaling quality function.

\$image.setScalingQuality(4)

Tips on Drawing and Creating Model Elements



Drawing Shapes

Different size shapes drawing

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Existing element creation in diagram

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2. Draw an element and press **F2** or **Space**. The list of already existing elements appears. Select the name and element with the same data will be created.

\$image.setScalingQuality(5)

Tips on Drawing and Creating Model Elements



Drawing Shapes

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Different results of using the image set scaling quality function.