



**TMS VCL UI Pack SVG
DEVELOPERS GUIDE**

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Supported SVG features, elements

TMS VCL UI Pack supports SVG files and can import and render SVG. SVG support is limited to

- Uncompressed SVG files in XML format

SVG supported elements:

- circle
- clipPath
- defs (limited to predefined style, no gradients, no paths, only single fill/stroke parameters)
- ellipse
- g
- image (limited to base64 encoded string value)
- line
- path
- pattern (no gradients, no paths, only single fill/stroke parameters)
- polygon
- polyline
- rect
- style

Within the style element supported parameters are:

- fill (no gradients)
- stroke (no gradients)
- stroke-width
- opacity

Within the primitives (line, polygon, polyline, rect, path) supported parameters are:

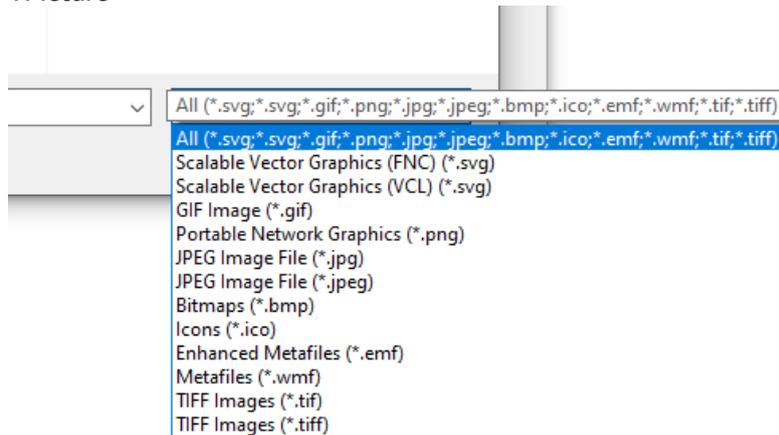
- fill (no gradients)
- stroke (no gradients)
- stroke-width
- transform (scale, rotate, translate, matrix)

With SVG support in TMS VCL UI Pack we aim for smaller SVG icon sets that can be used to target normal and high DPI applications. When scaling, SVG will scale accordingly and still render sharp at different resolutions. SVG support has been added to avoid the need for numerous icons for each different scale / resolution.

Adding SVG support to your application

SVG support can be added to your application by using the TPicture default designtime open file dialog. When the open file dialog is shown at designtime, an option is available for picking SVG files.

TPicture



Runtime support includes LoadFromFile, LoadFromStream, SaveToFile, SaveToStream as this is the case with other file image types such as PNG, JPG, GIF, BMP, ICO,

Grayscale

After loading an SVG, there is a runtime option to apply grayscale to an SVG. This way you can enhance your application with disabled states even with only one icon loaded into the component. Below is a sample applied to a TImage.



```
(TImage.Picture.Graphic as TAdvSVGBitmap).SVG.GrayScale := True;
```

After setting the property you'll need to call a repaint instruction:

```
Image1.Invalidate;
```

TVirtuallmageList (Rio and newer)

Starting from Rio, TVirtuallmageList is supported and can attach a separate image collection. This has been added to have a way to support high DPI images in controls.

With TMS VCL UI Pack, we have added an extension to the base image collection to add support for SVG. The TAdvSVGImageCollection component is registered separately and can be attached to the TVirtuallmageList component. The TVirtuallmageList component is responsible for generating images depending on the resolution. With SVG, you can attach a single list of SVG files via the TAdvSVGImageCollection and your application will have auto-scaled images based on SVG for each resolution.

With SVG, there is no need to specify multiple icons with various sizes and you don't need to worry about the resolution.