

WAP Pictus

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Requirements

Software and hardware requirements for WAP Pictus:

- Microsoft Windows 95, Microsoft Windows 98, Microsoft Windows NT or Microsoft Windows 2000
- SVGA (800x600) display or higher
- 2 MB of free hard disc space

Installation instructions

Run setup program and follow the installation information in the setup dialogs.

Getting started

Converting Bitmaps to WBMP

The source bitmap file must have 4 or 8 bpp.
(bpp = bits per pixel)

Converting JPEG images to WBMP

When you open a JPEG image, the WAP Pictus converts it automatically to a temporary bitmap. You can select the resolution of the wbitmap.

Features

Settings

- User preferences – You can select what type of dithering is used to convert BMP file to WBMP as well as select threshold value (for more information see appendix A)
- Directories – Your working and temporary directory path

Zoom

- You can zoom in and zoom out to view details of the image

Download

- You can download images from internet and work with them

Zoom\Resize

- You can easily make your image viewable in most WAP - enabled devices (Nokia 7110, Ericsson RS320, Ericsson RS380)

Batch Conversion

- You can convert many files at once, and create WML code for those images so converted images can be immediately visible on WAP enabled devices

Others

doubleclick the image to get image information

Chessboard icon – converts the image to a monochrome

in WAP Pictus you can save files as Bitmap (.bmp) or Wireless Bitmap (.wbm)

Appendix - Dithering methods

What is dithering

Dithering methods are used to display (or print) a high resolution image on a simple screen device (e.g. truecolor image on 16 color monitor), in this case to display image in monochrome.

Colors

Color palettes used in WAP Pictus:

- a) 1 bpp ==> |palette| = 2
- b) 4 bpp ==> |palette| = 16
- c) 8 bpp ==> |palette| = 256

(bpp = bits per pixel)

Dithering methods used in WAP Pictus

Thresholding

```
If (value of pixel > threshold value)  
    enable pixel;  
else  
    disable pixel;  
end if
```

Random

```
If (value of pixel > random value around the threshold)  
    enable pixel;  
else  
    disable pixel;  
end if
```

Matrix dithering

for displaying

for printing

```
If (value of pixel > matrix[row % 4][column % 4])  
    enable pixel;  
else  
    disable pixel;  
end if
```

Floyd – Steinberg

Fault distribution method.