JPGview for PalmOS®

User Manual Version 3.1

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1 Introduction

JPGview gives you the possibility to **view JPG Image** files stored on a external media (like Compact Flash, SD card, MMcard or Memory Stick) on your PDA.
New is also a **slideshow** function.

You can use it either to simply view and modify your images made by a Digital Camera, or just store and view Images without using the internal Memory of your Handheld device.

A great advantage of JPG files is the high compression level.
You can store more than 260 images in an acceptable quality with a resolution of 160x160 pixels on a small 4MB CF card!

If you are using aMail application like **SnapperMail**, you will like the feature **change the resolution and compression rate** of a JPG and send the images directly to the Email program.
Now you can send handy pictures from your vacation to your friends or update a web-page online with a cell phone.

In addition JPGview is able to **read the extended header** of JPGs coming from a digital camera. It shows data like aperture, exposure, EV compensation,....
Most of the actual Digicams store also a **thumbnail** picture as a part of the header (160x120 pixels). JPGview is able to use this thumbnail for a quick preview.
This preview in now also used in the image overview screen with a resolution of 40x30 pixels.

2 Hardware Requirements

To use JPGview you need to have a TRGpro® , HandEra 330®, Sony Clié® or a Palm (also Tungsten) device with a memory card (**required**!).

3 Installation

Simply use *PalmPilot Install Tool* to install the 'JPGview.prc' file onto your pilot and do a HotSync.

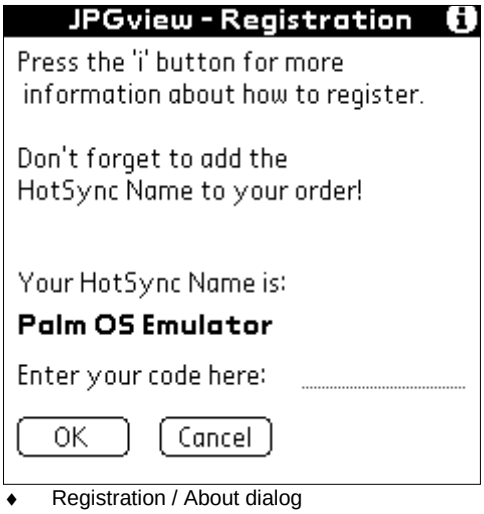
NOTE: Don't run JPGview from a CF card with AutoCF (TRGpro). Only form the internal Memory!

4 Shareware limitations / Registration window

There is no functional limitation for the unregistered version. You will only get a reminder message every time you start JPGview or convert a picture.

In addition JPGview does not store the ‘Use Thumbnail...’ flag. So you have to set it every time you enter the application ☺.

Registering JPGview will support the development of future enhancements and is good for all future releases. See also *Shareware registration* on page **Fehler! Textmarke nicht definiert.**.

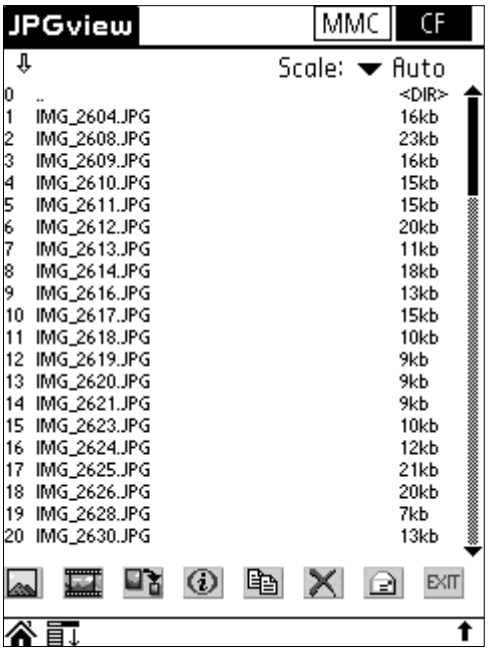


♦ Registration / About dialog

Press  for ‘about’ and copyright information on JPGview.

5 Main Directory View

Start the application by choosing the  icon from the Palm launcher.
You will see a table which shows all the JPGs and subdirectories of the CF card inserted. All other file types do not appear on this list.



♦ Main File Directory on HandEra 330



and Tungsten with thumbnail preview

Usage:

- Change into a subdirectory by selecting its name

  2 PALM <DIR>

- To go back to the upper directory select the '..' entry in the list

  0 .. <DIR>

- To mark a JPG for usage, just select it

  5 116-1650_IMG.jpg 11kb

- An image that was already loaded into the memory is marked with an *

  7 CLAUS2.JPG -kb *

To scroll in the file list use the Scroll Bar on the right or use the UP/DOWN keys or use your JogDial (HandEra/Sony only). 

5.1 Sort order

You can change the sort order of the filenames by selecting the symbol in the upper left corner: 

5.2 Change the scale ratio

By selecting the pull down Menu ‘Scale’ you are able to influence the scaling ration. There are several restrictions to large images: With OS 3.5.x images should not be larger then 64Kb.
If you get the message ‘Unable to allocate more memory’ you should decrease the image size!

Note: It’s highly recommended to use the option ‘Auto’

5.3 Select storage media



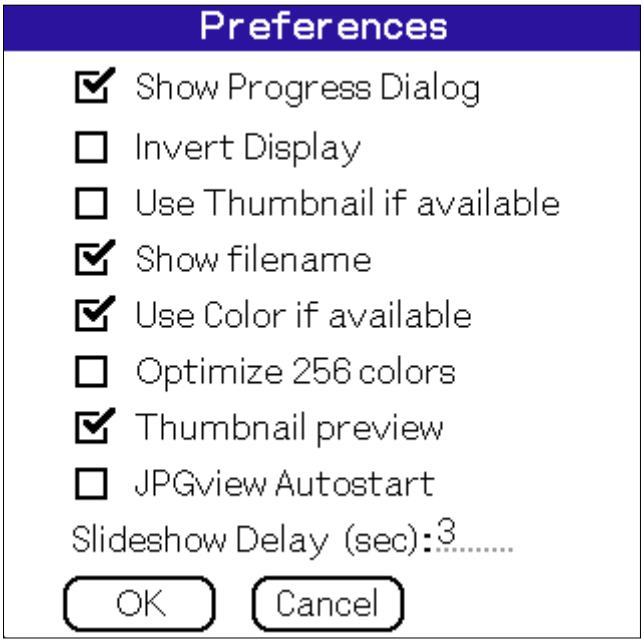
Depending on your device you will see one or more buttons at the top of the screen representing each found storage media type:

CF Compact Flash card
SD Secure Digital card
MMC MultiMedia card
MS Memory Stick
SM Smart Media card

On a HandEra you are able to switch between the SD/MMC and CF slot.

NOTE: Even if there is only 1 button you can use it to flush the image cache and re-read the card contents.

5.3.1 Preferences



Show Progress Dialog	-	shows the progress during a conversion
Invert Display	-	Picture is inverted; useful for backlight turned on
Use thumbnail if available	-	JPGview is able to read a JPG thumbnail picture that could be part of the JPG header. Most digital cameras write such a header. Usually the thumb has a resolution of 160x120 pixels. JPGview uses this thumbnail instead of the main picture if this flag is set. The conversion will be about 10 times faster!!
Show filename	-	Show filename in view mode
Use Color if available	-	Uses 8 or 16 Bit color, depending on your device

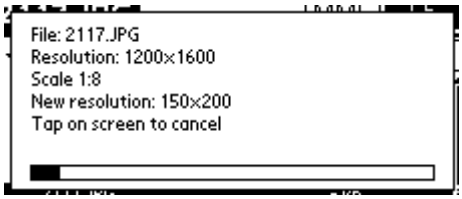
Optimize 256 colors	-	If your device can only display 256 colors at a time (OS < 4.0), JPGview optimizes the color palette. The result is a better quality, but it's slower to process  256 Col. optimized  256 Col. Standard
Thumbnail preview	-	Show preview pictures in the file overview
JPGview Autostart	-	JPGview will start automatically upon memory card insertion
Slideshow Delay	-	Delay in seconds after the image is calculated for showing the next image in slideshow mode

NOTE: The image quality is better if JPGview uses the main picture.
Not every type of thumbnail header is supported (right now).

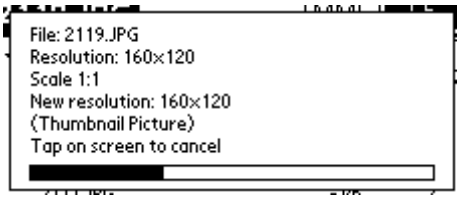
6 View JPGs

To view a JPG select it from the list and press the  button.

A dialog appears to inform you about the conversion progress:



♦ Conversion Progress



Conversion if JPGview uses the thumbnail pic

You can abort the conversion at any time. The scaling factor is determined automatically by the application or set to the value you selected.
Once the conversion is done you will see the image:



♦ Image View on HandEra 330



Use the arrow to go back to the file list.



Use the cross symbol to delete the actual picture.
JPGview will automatically load the next picture.



♦ Color on the Sony Clié

NOTE: If you get error messages about temporary files, please check if you have enough space on your storage media.
If the error still occurs deselect ‘Optimize 256 colors’ in the preferences and do not use progressive JPGs.

If the image if smaller than the screen resolution it’s automatically centered.

6.1 Progressive JPGs

JPGview allows you also the use of progressive JPGs.
However, it's not recommended to use them because they are more time intensive to calculate.

To process progressive JPGs, JPGview creates some temporary files in the */palm/programs/jpgview* directory.
These files are removed after the calculation is done.

Depending on the size of the picture it may take some seconds before you see the conversion progress.

INFO Progressive JPEG:
Progressive JPEG rearranges the stored data into a series of scans of increasing quality.
In situations where a JPEG file is transmitted across a slow communications link, a decoder can generate a low-quality image very quickly from the first scan, then gradually improve the displayed quality as more scans are received.
The final image after all scans are complete is identical to that of a regular (sequential) JPEG file of the same quality setting.
Progressive JPEG files are often slightly smaller than equivalent sequential JPEG files, but the possibility of incremental display is the main reason for using progressive JPEG.

To move an image tap into it, hold the stylus down and move the picture:



♦ Moving images if they do not fit onto the screen

When an image is loaded it is still in the internal memory even if you are back in the file window (image cache).
How many pictures are stored in the cache depends on the image size and the amount of memory available. Normally the cache can hold ~5 pictures.

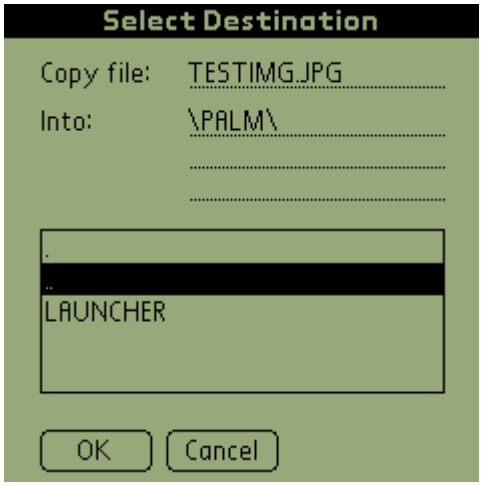
The application cleans up the cache when:
- the directory contents are refreshed (change the directory, switch to another window like the file info and back, ..)
- there is not enough memory available for the next action



When the image is shown you can jump to the next or previous picture by using the UP/DOWN key.

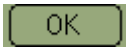
7 Copy JPGs

Select  in the main file view to copy a JPG into another directory.
A dialog comes up to let you select the destination:



♦ Select destination for copy

It is possible to change the destination file name in the upper input line.

Select the destination directory in the lower list box the same way as in the main file window and press  to copy the file.

8 Slideshow

To view all pictures of the actual path in a slideshow mode press the  button.

The first picture is either the first in the actual path if there is no file selected, or the one the current selection.

The time delay between the pictures is the setting in the preferences plus the time needed to calculate the image.

NOTE: To exit the slide show you only need to tap ONCE onto the screen.

If you have turned on the progress dialog, you will only see a small progress bar during slideshow operation:



9 Delete JPGs

To delete a JPG select it, and press  in the main file window.

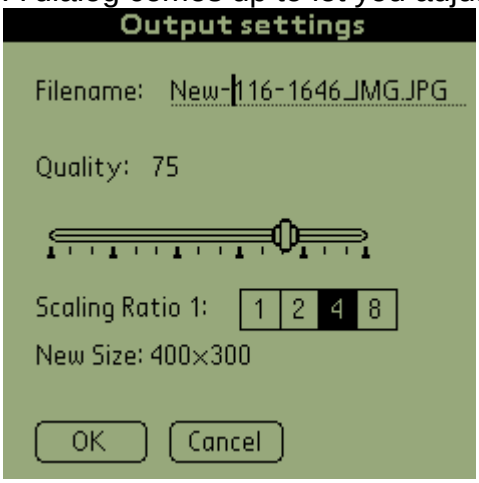
You need to confirm this action in the following dialog.

10 Resample JPGs

A nice function of JPGview is to write rescaled images back to the CF card. This might be useful if you want to send images with your cell phone or modem and do not want to transmit several hundreds of kilobytes.
In addition you are able to set the compression rate of the new JPG between 1 an 100. 100 means better quality and larger files. The most reasonable setting for this is between 65 and 85.
You can scale the image by setting the scale factor to 1:1, 1:2, 1:4 and 1:8 related to the original size.

Select  from the main file window.

A dialog comes up to let you adjust the settings described above:



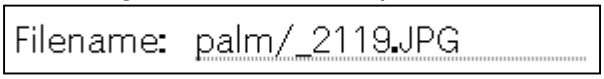
♦ Output settings

In this dialog you also change the destination file name. The default name is the original one with a leading '_'.

Press  to start the conversion procedure.

NOTE:
- An already existing file with the same name will be overwritten!
- The modified JPG has the same color depth as the original one!
- One some devices it's not possible to create a file in the root path.
  - ➔ Select a destination path under the */palm* directory
  - ➔ */palm* is the default path for **SONY** devices!

To change the destination path, enter it in the format {destpath}/{filename}



This path is always relative to the root path of your storage media!

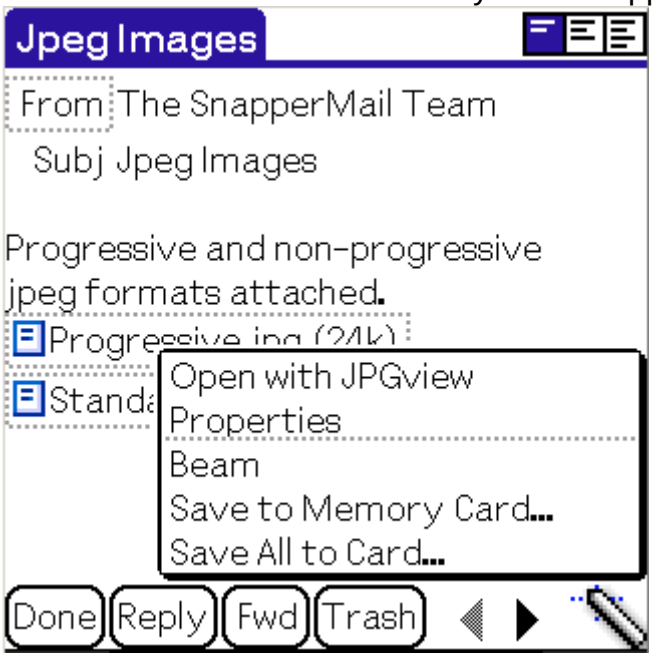
11 Send JPG's via Email

JPGview is able to send JPG Files directly to an Email application like SnapperMail. (see http://www.snappermail.com/palm/email/ for more information)
To send an image to SnapperMail select the File you want to send and press the button.
A progress dialog appears and SnapperMail will be activated automatically.

12 Receive Images via IrDa or from an other application

JPGview registers for JPG file types. This means that if you beam a JPG via Infrared from an other device like a DigiCam or Notebook, JPGview picks up the file, saves it to the memory card and displays the image.

You can also call JPGview directly from SnapperMail:

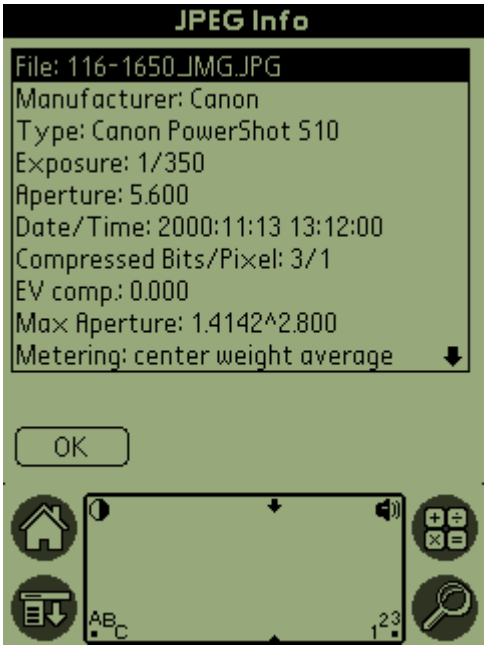


♦ SnapperMail

13 JPG File Information

Most of the actual digital cameras write a special file header with information about the camera settings with which the photo was taken.

Select  to take a look at this information.



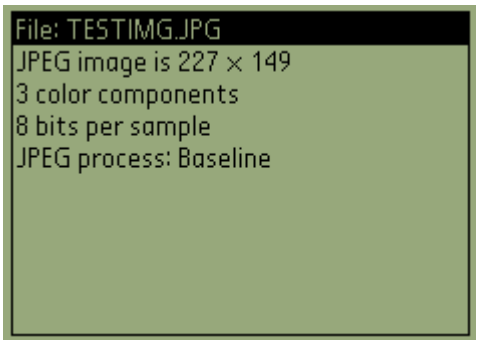
♦ Extended JPEG file info

JPGview is currently able to analyze the following contents:

- Manufacturer
- Camera Type
- Firmware version
- Exposure time
- Aperture
- Exposure Mode
- ISO speed
- Date/Time
- Compression in Bits per Pixel (rough estimate)
- EV compensation
- Distance
- Exposure metering method
- Light source, actually this means white balance setting.
- Flash
- Focal length of lens used to take image. Unit is millimeter.

Note: Not every field is filled by every camera!

You can also use the file info with any other JPG file. But you will see only the general informations:



♦ Regular file info

14 Use The Database



Right now you can save only one (your favorite☺) picture as a palm database.
To do so view the picture so that it is in the image cache and select *Save as Database* from the menu.
Now you can load the image independent from the inserted CF card at any time.

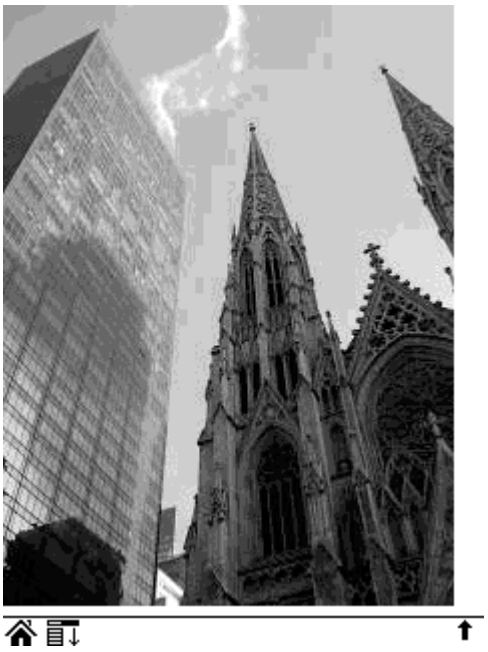
15 The HandEra 330®

Some features are only available on the HandEra 330 device.

JPGview is already able to use the higher resolution of the HandEra.

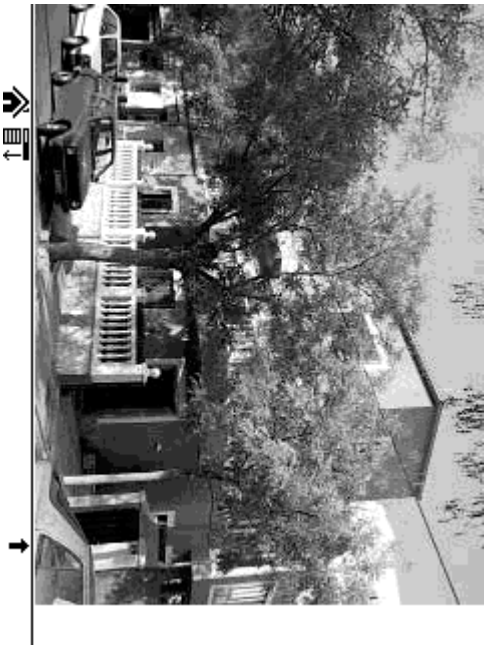
Full screen view

Full screen view is used automatically when a picture is shown.

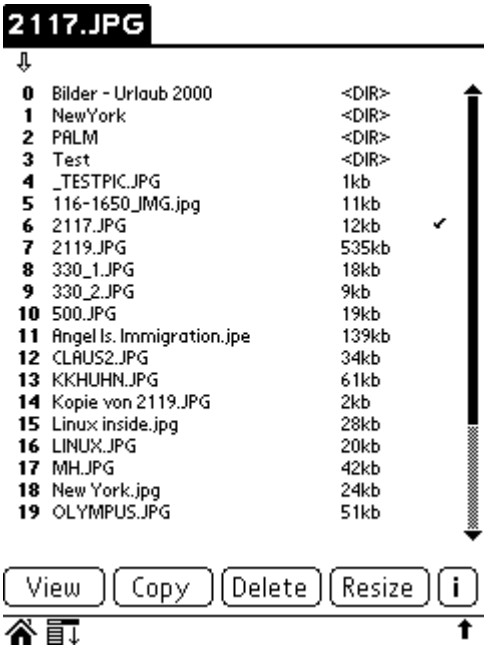


Landscape mode

The Application switches automatically to the landscape mode if the image is also in a landscape format and it is larger than the screen



Minimize the silk screen in the file window



16 Jog Dial

JPGview supports the HandEra 330 and Sony Clié Jog Dial for one hand operation.



It is used for the following functions:

Function	Picture view mode	Directory list mode
Up	View previous picture	Scroll one list item
Down	View next picture	Scroll one list item
Press	Exit view mode	View selected picture

17 Version History

Version: 3.10 — 31 December 04
- JPGview is now freeware

Version: 3.00 — 27 November 02
- Thumbnail preview
- Support for Palm OS 5 (Tungsten T)
- Supports the Exchange Manager -> Works with SnapperMail and allows direct beaming of JPEGs via IrDa from Digital Cameras/Notebooks
- fix for CASIO Exilim thumbnail view (and maybe also other brands)
- Some bug fixes

Version: 2.94 — 10 May 02
- Slideshow
- Better Jog Dial support
- Minor changes (exit view, icons, center image, ...)

Version: 2.92 — 10 November 01
- Some bug fixes (JPEG formats, file attributes)
- Font selection
- Improved progress dialog
- Improved speed

Version: 2.9 — Official Color release
- VFS improvements
- Adjustable scaling
- Improved progressive handling

Version: 2.7b — Public Beta
- Color support
- Sony Clié ® support

Version: 2.5b — 16 July, 01
- VFS support
- Some small bug fixes

Version: 2.1 — 21 June, 01
- Bug fix with long filenames in the file info window
- Adjustable sort order of filenames
- Some Handera improvements

Version: 2.01 — 9 June, 01
2nd Official release
- Small bug fixes
- Using JPG thumbnails

Version: 2.0b 1 June, 01

2nd Unofficial beta release

- Enhanced File information for Digicanms
- Write rescaled pics back to the CF card
- Image cache
- New file list
- And many other things....

Version: 1.0 10 May, 01

1st Official release

- View JPG files in any Path of the CF
- Automatic scaling
- Standard and progressive JPG's
- Inverted view (e.g. for Backlight)
- Copy JPG's to any path of the CF
- Delete JPG's

18 Contact

If you discover new bugs, have ideas for future versions or just comments please contact me by e-mail at:

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19 JPGview Copyright Notice

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The author assumes no responsibility for any damage or loss resulting from the use or misuse of this software.

Special thanks to everyone who gave me support to develop this application or just wrote useful comments!

And some very special thanks to:
Michael Walton (from HandEra), Ken Zemach, Thomas Lienhard, ...