December 14, 1993

Pegasus Imaging Corp. 4350 W. Cypress Street Suite 908 Tampa, FL 33607

(813) 875-7575 (813) 875-7705 FAX

IMPACJ Windows Demo Windows IMJVIEW version 1.10

This software is being released as a shareware viewer of PIC's IMPACJ image files. IMPACJ is a DCT (Discrete Cosine Transform, like JPEG) compression algorithm that will compress 24 bit color and 8 bit grayscale images. IMPACJ has been optimized for speed and compressed image quality. The compression factors are user controlled through luminance, chrominance, and color subsampling options. IMPACJ is a symmetrical software only compression / decompression product. This means that compression times equal decompression times for a given image on a given machine, and that the product does not require any special compression hardware.

If you are interested in obtaining a combination Windows IMPACJ compressor and viewer along with updates and new features contact Pegasus at the above phone number or address.

Windows Viewer/Compression combination at a CompuServe members' discounted price of \$75 USD.

# **IMAGE QUALITY**

At compression time the IMPACJ compressor uses our color reduction and palette optimization algorithms to create 256 color and 16 color palettes to be included in the IMJ header. This allows users who have lower color (less than 24 bit) VGA cards to get excellent results when viewing full color IMJ images.

Due to the flexibility of the IMPACJ compression factors, the compressed image quality is completely user controlled.

### COMPRESSION FACTORS

IMPACJ compression allows for seperate luminance and chrominance compression values ranging from 0 to 1000. 0 being a very low compression factor and 1000 being very high compression. The user may also choose to perform color subsampling or full color sampling. Settings of 0, 0 for luminance, chrominance and full color sampling will provide a near lossless image compression. In fact we are currently using this "near-lossless" mode for an X-Ray image archival database.

### **SPEED**

Slow speed at viewing time has historically been the most compelling reason NOT to use a DCT compression algorithm. IMPACJ has overcome

this speed problem and decompresses 640 x480 images to the screen in any of its modes (true color, 236 color, 16 color) in less than 2 seconds on a '486 33.

#### **FUTURE ENHANCEMENTS**

IMPACJ is continually evolving to provide image users with additional functionality. Planned future enhancements include JFIF compatibility, thumbnails included in the image file, and standard conversions to / from other popular formats in the viewer programs. Pegasus relies on our customers to provide us with their invaluable feedback to determine which features are most needed.

## **DEVELOPERS**

Pegasus is currently able to provide IMPACJ code to developers in the form of DOS obj's and Windows DLL's. Our future plans call for VBX versions and MAC and OS/2 versions of all our code. We are always interested in forming mutually beneficial relationships with other imaging software developers. To that end Pegasus is willing to provide custom versions of all of our imaging utilities. Please call to discuss how we can work together!

Release 1.10 of our Windows IMJVIEW software highlights significant speed improvements of the IMJ decompression code. You may continue to view IMJ files compressed with the earlier versions of the compression software. This disk does NOT contain an IMPACJ compressor.

This release of IMPACJ features:

IMJVIEW.EXE - A Windows version of PIC's IMPACJ viewing software. You may use this package to view IMJ format images. Be sure to experiment with the "Image Options" that are applicable to your video setup. In particular please note the quality of our 16 color images and the dithering speed & quality.

Our intention in providing this software is to demonstrate the quality of the underlying decompression and color mapping code. This is not a production release package, and as such there may be some problems, or "bugs" in the user interface. Please do not allow these problems to reflect on the quality of the lower level image compression, decompression, dithering, and color mapping code.

We hope you enjoy the speed improvements in the viewer and look forward to your comments and questions.

Thank you.
Pegasus Imaging Corp.

### OTHER PEGASUS PRODUCTS

IMPACJ is the lossy compression algorithm in PIC's IMPAC family of image compression products. IMPAC4 provides lossless compression of low color images (4 bits per pixel) and is perfect for maps, comics, presentations, etc. IMPAC4 can compress 16 color files to IM4 file sizes of less than 1 bpp. IMPAC4 will decompress 640x480 16 color images

to the screen in less than 1 second on a 486 class PC.

IMPAC1 is a "beyond G4" compression alorithm for 1 bit per pixel document images. This software can provide up to to 4:1 compression gains over FAX G4 compression.

IMPACG is PIC's Group III and Group IV TIF image compression code. IMPACG is a very fast implementation of these algorithms, and, like all our code is available to developers in many forms including executable, object, and source.