

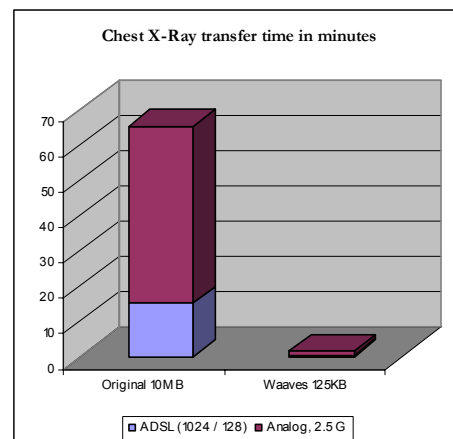
WAAVES for sharing and storing medical images

WAAVES medical versions have been defined according to your needs

WAAVES is the most powerful medical image compression solution clinically tested. Available with cryptography solutions, you can compress and encrypt automatically images attached to your e-mails. Patient records embedding images are shared without transfer overtime and with maximum security.

WAAVES medical quality has been clinically tested by radiologists

The clinical study *Image compression in chest radiography: To the limit and beyond* Pr. Guy Frija, Dr Catherine Lefort and *alter* published during the French Radiologist Congress (JFR – Paris – October 2004) indicates: “A chest X-Ray can be compressed [with WAAVES] 80 times on average without introducing diagnosis bias.”



WAAVES solutions help optimizing compression

Based on a quality index, WAAVES compression optimizes the ratio quality vs. file size based for every kind of exam without altering image resolution and depth, always minimizing transfer time.

Medical image becomes as easy to share as a prescription

WAAVES is available for Windows, Mac OS X and Symbian.

Images can be exported to other graphical file format

WAAVES allows you to import and export images from and to main graphical file format like Bmp, Jpeg, Tiff as well as images embedded in Dicom.

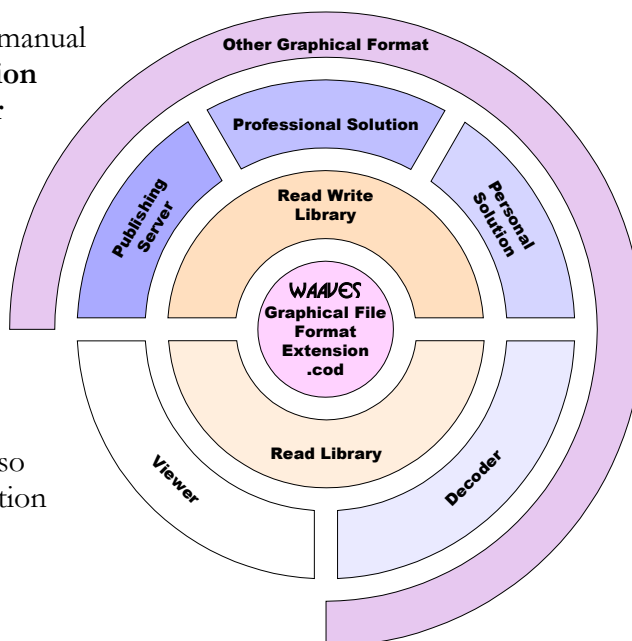
A scalable range suited to the various needs

Scalable, the range of software is available for Windows, Mac OS X and Symbian. It covers the various needs and eases image storage, transfer, exchange and sharing.

The **Personal Solution** allows manual compression. The **Professional Solution** includes batch process and the **Publisher Server** automates the whole process.

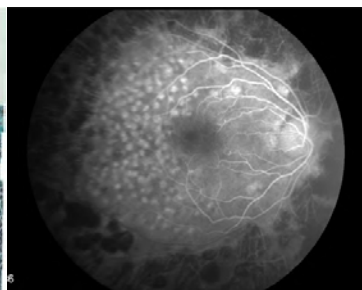
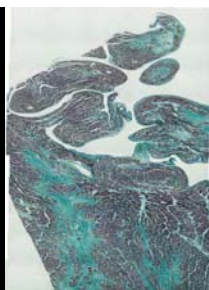
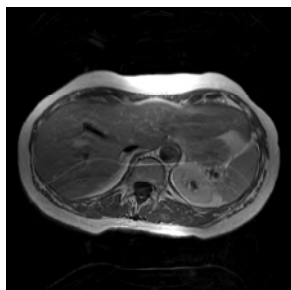
The **Viewer** reads WAAVES file format and display images on the various computer solutions and cellular phones. **Decoders** also allow converting WAAVES images to several graphical file formats.

This range is built on top of 2 **libraries** also available separately allowing WAAVES integration in various third party applications.



Summary of characteristics

	Viewer	Decoder	Personal Solution	Professional Solution	Publishing Server
Mains features:					
▶ WAAVES Display:	✓	✓	✓	✓	✓
▶ Others format display:	✗	✓	✓	✓	✓
▶ Compression:	✗	✗	✓	✓	✓
▶ Exportation:	✗	✓	✓	✓	✓
▶ Batch process	✗	✗	✗	✓	✓
▶ Tasks automation	✗	✗	✗	✗	✓
▶ Dicom read	✗	✓	✓	✓	✓
Technical characteristics:					
▶ Colors:	24 bits (Millions)				
▶ Grayscale:	8, 10, 12, 14 or 16 bits				
▶ Compression:	Lossless (reversible) or lossy mode with a quality index				
▶ Directory processing:	✗	✗	✗	✓	
▶ Rules System:	✗	✗	✗	✗	✓
▶ Profile management :	✗	✗	✗	✗	✓
Options:					
▶ Mobility:	✓	✓	✓	✓	✗
OSes:					
▶ Windows	✓	✓	✓	✓	✓
▶ Mac OS X	✓	✓	✓	✓	✓
▶ Symbian v. 6.x	✓	✗	✗	✗	✗



Resolution 512 x 512
 Gray scale 65,536 (16 bits)
 WAAVES file size 12 KB
 Compression rate 41

Resolution 4,098 x 5,667
 Colors millions (24 bits)
 WAAVES file size 147 KB
 Compression rate 462

Resolution 1,536 x 1,024
 Gray scale 256 (8 bits)
 WAAVES file size 19 KB
 Compression rate 80

Resolution 1,976 x 1,576
 Gray scale 1,024 (10 bits)
 WAAVES file size 5 KB
 Compression rate 1,260

CIRA - Société de Compression d'Images en Réseaux et Applications

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Software Publisher: CIRA is one of the pioneers in the application of wavelet theory technology for digital imaging. CIRA's product line encompasses all types of professional digital imaging and transmission markets, and makes embedding automatic compression functionality an easy task for all application types.

European Communities have awarded WAAVES "European IST Prize Nominee".

CIRA - SARL nominal capital 10 000 € – RCS Paris B 420 950 313 – APE 722
 Non commercial information – Specifications can change at sight – W25 Sol X US Medical 050301