FAPEC

CORE 2016.0

Designed to address the needs of massive data handling for professionals and large organizations.

All-in-one
data compression solution

Universal high-performance lossless data compressor for scientific data, raw images and video, text, and any kind of data in general.

Lossless and fixed-quality lossy compression

for monochrome and multi-band images, also including many-band images such as hyperspectral data. FAPEC can also be configured for lossless or lossy compression of raw video.

science	image	video	text	medical

TECHNICAL
FEATURES

ANSI C API for file and memory buffer compression
FAPEC has been implemented in ANSI C for best compatibility with almost any computing platform, not only for typical on-ground computing systems but also for legacy, embedded and space systems.

Automatic or highly-configurable operation
FAPEC Core 2016.0 includes a fast auto-configuration stage to make its operation simple. The manual options allow to natively handle sample sizes of 4 to 28 bits with a variety of pre-processing capabilities. Text compression is also supported, with ratios and speeds similar to those achieved with *gzip*.

Command-line program for Linux, Windows and Mac OS
Compatible with Linux, Windows and Mac, from old 32-bit computers to cutting-edge 64-bit systems, also supporting Big Endian processors such as PowerPC.

Space technology heritage

Designed and implemented fulfilling the extremely tight requirements of satellite payloads.

Free evaluation licenses

Get started by downloading and testing FAPEC with a 3 months free license.

Minimal data loss in case of corruption
FAPEC runs in chunks of 1 KB (for better error resiliency) to 384 MB (for better performance). Files from a few KB up to some TB can be handled.

Fast outlier-resilient compression
The patented FAPEC entropy coding core reaches excellent compression efficiencies even for data with high levels of noise and statistical outliers.

Get answers to your questions about using FAPEC Core 2016.0

If you have questions or want to learn more, Dapcom experts are here to help.
fapec@dapcom.es

Flexible modular FAPEC software

✓ **Library for integration in your own program.** Available in the form of a command-line executable, as well as a dynamic library with a simple API, allowing to embed FAPEC compression and decompression in your data handling software seamlessly, either working on files or memory buffers.

✓ **Low computing and memory requirements.** FAPEC features highly configurable lossless and lossy data compression with very low computing requirements without compromising the compression ratios achieved. It offers excellent speeds even in old computers.

✓ **License-enforced** privacy option for compressed files. You can choose to be the only one able to decompress your files.

Lossless data compression ratios

Compression ratio

- Science data
- Monochrome pictures
- Earth observation colour pictures
- Raw professional photography
- Medical images and data
- Many-band earth observation images
- Raw video

Lossless compression speed

Throughput (MB/s)

FAPEC ZIP RAR 7ZIP

Fapec time vs. Zip time

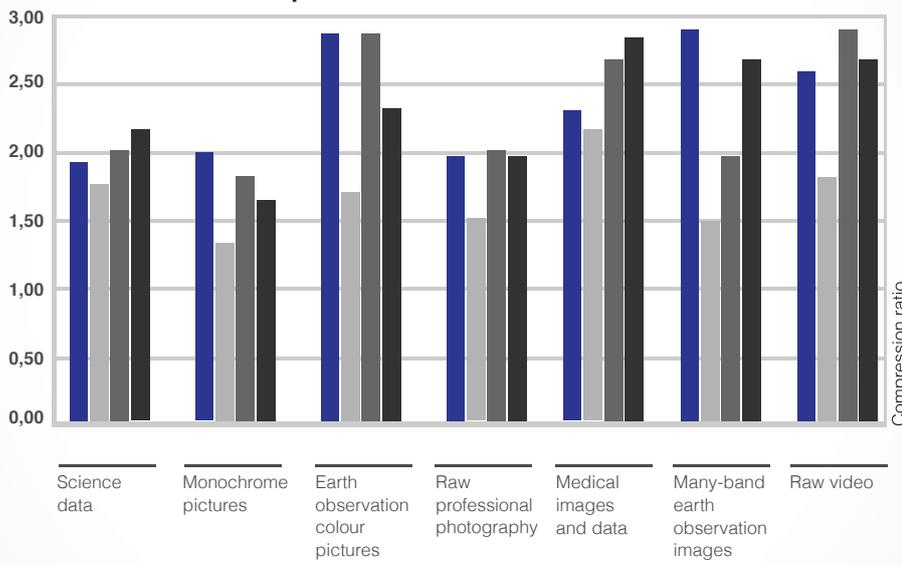17% 55% 22% 16% 17% 19% 47%

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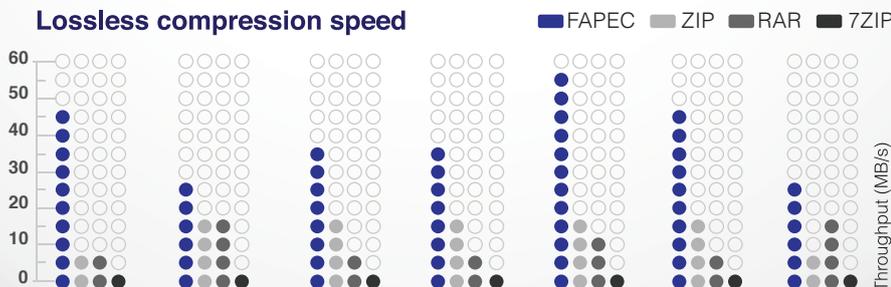**w w w . d a p c o m . e s**