

KONGSBERG

DAPCOM
Data services

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Best **KMALL** **compression** in the market

- ✓ Multi-platform
- ✓ Low CPU and RAM requirements

High-performance professional data compression software

Tailored algorithms for
optimum compression of

**KMALL, KMWCD
and WCD data.**

Additional algorithms for **CSV**, time
series, images and audio.

Support from DAPCOM Data Services, technological spin-off company from UPC and UB

Systems and software engineering
for high-performance massive
data handling and analysis.

Patented data compression
technology with Space heritage:
ESA-Gaia (catalogue from 2 billion
stars), Spire (satellite data
compression).



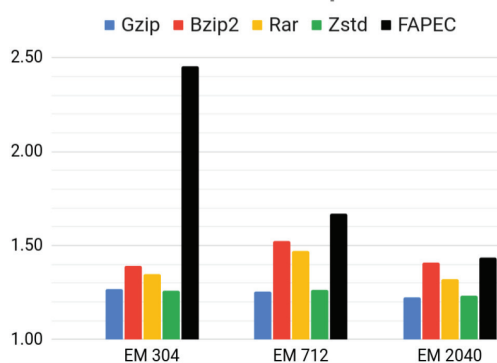
UNIVERSITAT DE
BARCELONA

Spin-off

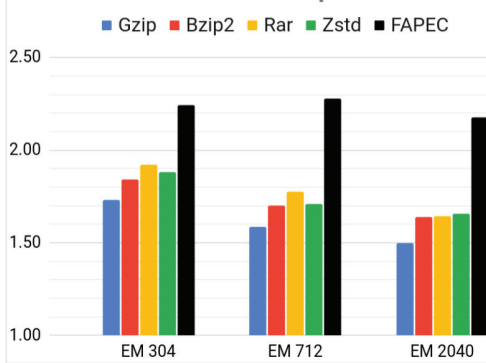


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DE CATALUNYA
BARCELONATECH

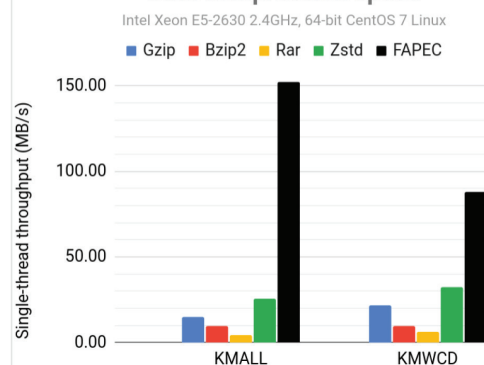
Lossless KMWCD compression ratio



Lossless KMALL compression ratio



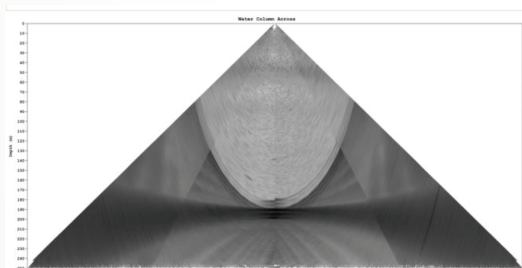
Data compression speed



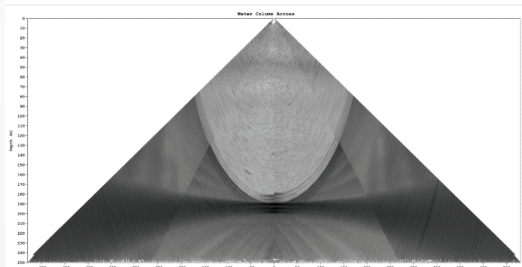
Additional product features:

- ✓ **Multi-threading**, for even faster operation.
- ✓ **Resiliency** in case of file corruption, minimizing data loss.
- ✓ **Encryption**: XXTEA and AES-256.
- ✓ **Lossy compression option** for watercolumn datagrams.

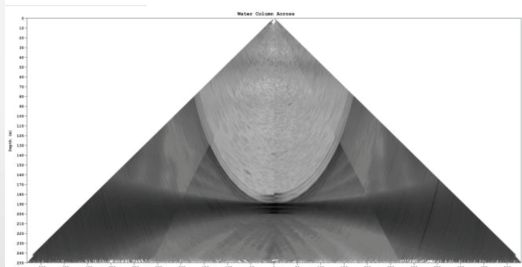
EM304 example:



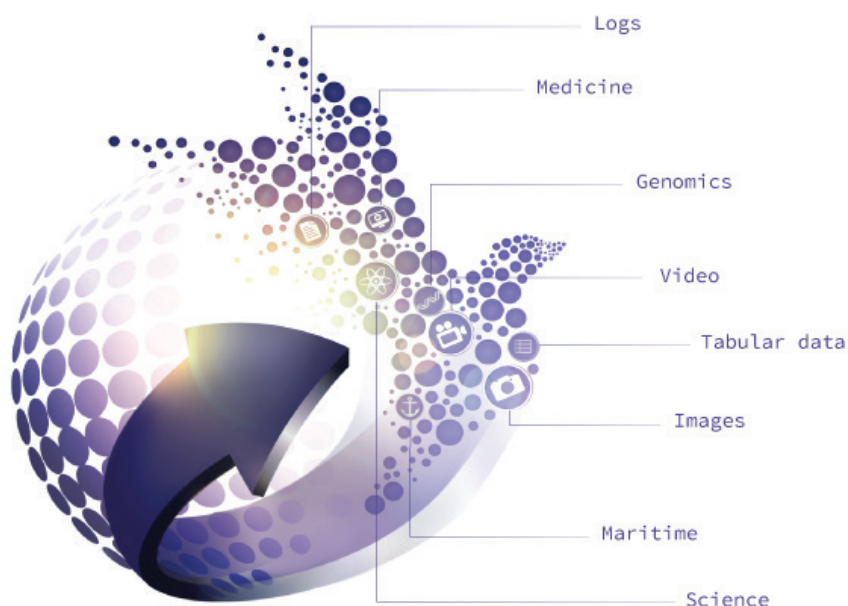
Lossless: Gzip ratio 1.27
FAPEC ratio 2.45



Lossy, 51dB PSNR, MaxDiff 1.0:
FAPEC ratio 3.08



Lossy, 43dB PSNR, MaxDiff 3.0:
FAPEC ratio 4.53



Usage and integration:

- ✓ **CLI**: invoke FAPEC binaries from your scripts
- ✓ **API**: integrate the FAPEC library in your programs
- ✓ **C, Python and Java wrappers**

```
[fapec@dapcom kmall]$ fapec -dtype kmall 0019_20210409_094804.kmall
```

```
FAPEC Archiver - 21.0.0 (2021-09-20)  
(c) 2013-2021 DAPCOM Data Services S.L. - https://www.dapcom.es  
64/64 bit LE Restricted license for:  
John D. Tester
```

```
Compressing 1 file into 0019_20210409_094804.kmall.fapec with 14 threads...  
[1/1] 0019_20210409_094804.kmall (450.8 MB)...  
100.0% 1228.5 MB/s ratio 2.21
```

```
Done: 450.8 MB compressed to 204.0 MB (ratio 2.2103) in 0.4 seconds (1228.1 MB/s)
```