CATANA CORPORATION

CVC Image

Catana Versatile Compression Series

Real-time High-speed Lossless Image Compression Library

Image Compression   **CVC Image** : Facilitates complaints handling on autonomous driving control

Event Data Recorder (EDR) application

Captured in a real car environment   SSD   Computer
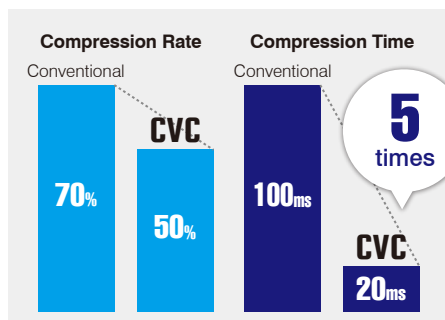
Images from automotive cameras
Compressed by CVC

SSD

Full HD 30fps 1.2TB/day   0.6TB/day   Accident Analysis / Complaints Handling

Compression Rate
Conventional

CVC

70%

50%

Compression Time
Conventional

5 times

100ms

CVC

20ms

* image

Overwhelming real-time processing that is practical in the field

Previously, it was difficult to store long-haul travel data due to the rate limitation of HDD/SSD. CVC Image can compress image data five times faster than before, enabling long-haul image data storage. In addition, it reduces the data size by more than half, helping facilitate complaints handling on autonomous driving control.

Supported environment

CVC Image supports wide variety of environments used in embedded devices:

■ OS: Windows, Linux, uITRON, T-Kernel, VxWorks, non-OS system and more

■ CPU: Intel family, Renesas H8 series, SH family, ARM family and more

* Cannot read from or write to a file in an environment that does not support any file systems.

CVC Image **Features**

Conventional methods

✗ Run slow and take too long time to complete.

✗ Processing speed highly depends on the type of input data.

✗ Not suitable for embedded applications due to large software size.

✗ Lower compression ratio depending on the data contents.

✗ Freewares may involve ambiguous licenses.

✗ General compression means easy decompression.

CVC Image

○ Achieves overwhelmingly faster compression than conventional methods.

○ Stable processing speed and virtually real-time processing.

○ Small-scale software implementation makes it ideal for embedded applications.

○ Higher compression ratio than conventional methods.

○ Machine-independent source code fits any execution environments.

○ Highly secure due to our proprietary process.

○ Includes a free license for a dedicated library for decompression.

Use Cases / Recommended Uses

Exhaustive storage of image data from visual inspection systems (for automotive, electronics, etc.).

Exhaustive storage of food inspection images.

Exhaustive storage of drug inspection images.

Exhaustive storage of inspection image data of continuums (for example, sheets and panels).

Securing bandwidth and storage of camera data from autonomous driving and advanced safety systems.

Image data compaction in clouds and data centers.

Introducing CVC Series

CVC Image
Real-time high-speed lossless data compression library optimized for images. Suitable for exhaustive storage of images.
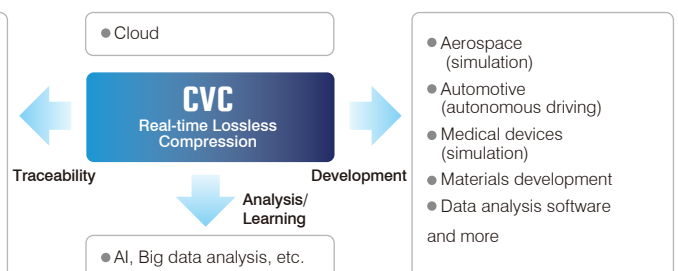
CVC Wave
Real-time high-speed lossless data compression library that enables fast and highly-efficient compression for various type of waveforms.

CVC Codec
IP library that implements CVC compression with FPGA.

- Consumer electronics
- Automotive
- Semiconductors / LCD panels
- Sheets / Printed materials
- Foods
- Pharmaceutical / Medical devices
- Agricultural products

and more

● Cloud

CVC
Real-time Lossless Compression

Traceability

Development

Analysis/ Learning

● AI, Big data analysis, etc.

- Aerospace (simulation)
- Automotive (autonomous driving)
- Medical devices (simulation)
- Materials development
- Data analysis software

and more

Distributor

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