Kompix Image Compression Software

Radios: PRR

Kompix is a state-of-the-art software application designed to significantly reduce the bandwidth requirements currently required when transferring still imagery across any bearer. It significantly outperforms any other compression product on the market in terms of retained image quality.

Kompix introduces a significant uplift in operational tempo, due to reduced transfer times and reduced bandwidth usage, providing signficant cost savings over Satcom bearers. The application achieves high quality reproduction of imagery, even at compression ratios greater than 90%.

It offers operational and cost benefits by achieving substantial reductions in the transmission size of files containing imagery. This is particularly useful when sending bandwidth-hungry imagery over low bandwidth or expensive links.

Features

- Significant reduction in transfer times (circa 85%)
- Significant reduction in bandwidth usage (circa 95%)
- Significant reduction in bandwidth costs
- Ability to effectively transfer larger files in the same time as with current methods
- Enables the disadvantaged user - markedly enhances use of low bandwidth links
- Bearer and media-agnostic
- Simple and quick to integrate with in-service architectures and systems
- Works with and enhances systems such as Steelhead, as used by the UK's Military Forces
- Comprehensive Application Programming Interface (API) enables easy integration with other applications
- Easy to install application
- Application sold as a license

Kompix integrates seamlessly with the environment found on a PC. Based around a plug-in extension to an email client, the user does not have to become involved in activating the compression capability since it happens automatically when emails are sent. Those receiving the emails and also in possession of Kompix are automatically presented with the decompressed file ready to view. Kompix can therefore be incorporated within a current capability without requiring any change to operational processes.

Kompix has been designed to be integrated within the company's Intelligent Information Dissemination (I2D) product set. I2D has been in service with the UK MoD since 2007, providing a vital role supporting the transfer of various essential information types, whilst providing significant bandwidth savings. However, this is not a military specific capability and the system will provide significant benefits to any user or organisation.

Typical file sizes and transfer times are shown in the table below. These figures were recorded over a UHF SATCOM bearer. The time comparisons are for the original transfer time using the legacy compression algorithms versus the transfer time using Kompix.

The comparisons are end-to-end and include the processing time for removing images from documents, compressing, replacing, transferring over the bearer and then de-compressing at the receiving end.

Following the transfer of such highly compressed images, Kompix provides unbeatable clarity and detail. The pictures below show how a 2MB image has been compressed down to 81KB using standard Jpeg compression and as a direct comparison the same image compressed down to 81KB using the Kompix compression algorithm. Even at 42KB, the Kompix image still retains very good detail.

File	Transfer Time Original System	Transfer Time using Kompix	Percentage Time Saved
54KB Biotrac Image	1min 46secs	31secs	70.8%
1.14MB Image	38mins 39secs	2mins 23secs	93.9%
1.47MB Map	1hr 5mins 52secs	1min 38secs	97.5%
2.02MB Image	1hr 8mins 33secs	5mins 19secs	92.2%
Text + 56KB Image	2mins 50secs	1min 4secs	62.4%
Text + 1MB Image	33mins 41secs	3mins 15secs	90.4%
Presentation + 56KB Image	21mins 54secs	2mins 13secs	89.9%
Presentation + Images	33mins 13secs	3mins 28secs	89.6%

Example of Image Compression

2MB original image

42KB Kompix compression

Reproduced Kompix image

Partnered Supplier

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