

LEONARDO ELECTRONICS

# KOMPIX

PROVIDING INFORMATION  
ADVANTAGE IN A CONGESTED  
ELECTROMAGNETIC ENVIRONMENT

Kompix is a proven and in-service information exchange software application focused on the transfer of imagery over a range of challenging communication networks.

Kompix provides an intuitive user interface designed for in-field operations, employing a market-leading compression algorithm.

Kompix provides a rapid information exchange capability through the reduction of data file size (typically >80%); this minimises the operator's time on-air and, greatly reduces the likelihood of intercept and detection.

Kompix operates across all Internet Protocol-enabled communications networks as a Windows or Android application, it delivers critical front-edge decision-making information to the tactical commander.

## KOMPIX CAPABILITY

- Market leading compression algorithm that reduces the data of an image by >80%, whilst maintaining good image quality
- The quality of mission information is retained in the compressed image
- Significant reduction in information transfer times
- Significant reduction in data bandwidth usage
- Enables information exchange for operators in disadvantaged and congested communication environments
- Enables an operator to stay 'off grid' for longer, maintaining radio silence
- Intuitive user interface
- Provides editing and overlay capability to add operational context to captured images prior to transmission

## KOMPIX FEATURES

- Image Gridding - Areas of an image that contain critical information are selected by the user; these areas are not compressed prior to transmission
- Image Mark Up - The image is annotated by the user and is stored as a layer to the original image. Only the annotated layer is transmitted
- Link Recovery - The ability to deal with intermittent links without needing to retransmit the complete image every time the link drops out
- Push/Pull - Additional Information may be pushed by the sender, or requested/pulled by the recipient
- Android and Windows-based operating system software
- The ability to send a range of data types other than imagery such as text documents and presentations

## KOMPIX IMAGE GRIDDING



Original image 10.9 MB. Important areas identified by the sender on the Kompix application prior to transmission.



Transmitted image 98 kB. Heavily compressed outside the gridded areas of low importance to reduce overall image to 98 kB whilst retaining critical information content within the gridded areas.

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

## KOMPIX PERFORMANCE

Recorded over an in-service UHF Satcom bearer, comparing end to end transfer times of legacy compression tools (NXPowerLite) versus Kompix; this includes the processing time for data compression, transfer over the bearer, followed by de-compression at the receiver end. Following the transmission of compressed data files using Kompix the clarity and detail is maintained, comparable to the original data set.

For more information:  
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