

SelectFocus™

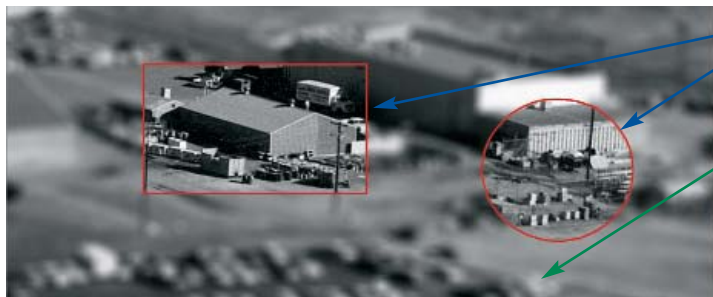
selectable ROI image compression software

SelectFocus is a state-of-the-art, region-of-interest-based image compression tool that incorporates a modified JPEG2000 coder/decoder (codec) to provide efficient compression of imagery with multiple regions of interest (ROIs). The well-structured and intuitive graphical user interface (GUI) provides users with the functionality for viewing, annotating, and compressing imagery files, and for transmitting the imagery over any IP-based network.

SelectFocus was designed specifically for the transmission of critical imagery over ultra-low-bandwidth links, such as a single 2.4-kbps Iridium® channel, by allowing objects or regions of interest to be compressed at higher resolution, while the background is compressed at lower resolution. This coding methodology dramatically reduces the bandwidth required to transmit the imagery, while preserving its target-specific utility.

Features

- Supports both uniform and region-of-interest-based image compression
- Fully selectable compression ratio supports any application and bandwidth
- Supports an arbitrary number of ROIs, which enables all pertinent targets within an image to be selected
- ROI contours can be drawn either freehand, rectangular, or oval
- ROI contours selected at the transmitter are displayed at the receiver to alert the user to selected targets
- Fully adjustable apportionment of bits between ROIs and background allows the quality of the ROIs and the background to be adjusted to suit the user's needs
- Custom GUI supports viewing and editing of multiple images simultaneously. Custom image tree display organizes all open images by scene and by compressed size, allowing one-touch selection of any open image file
- Fully integrated transmit and receive mechanism enables one-touch image transmission to any networked user



Higher bit rate is assigned to the target information

Lower bit rate (user selectable) is applied to the background

General Dynamics SelectFocus™ Selectable ROI Image Compression Software

As a major provider of services, solutions, and support to U.S. and foreign governments, General Dynamics C4 Systems has developed SelectFocus Selectable ROI Image Compression software for commercial and government users. General Dynamics' SelectFocus Compression Software provides multiple ROI compression capabilities to allow users to preserve relevant features or targets for further analysis.

General Dynamics' SelectFocus Compression Software reduces the bandwidth/storage requirements of digital imagery, while preserving the target-specific utility of the imagery, and facilitates the rapid transmission of image data over connections of extremely limited bandwidth.

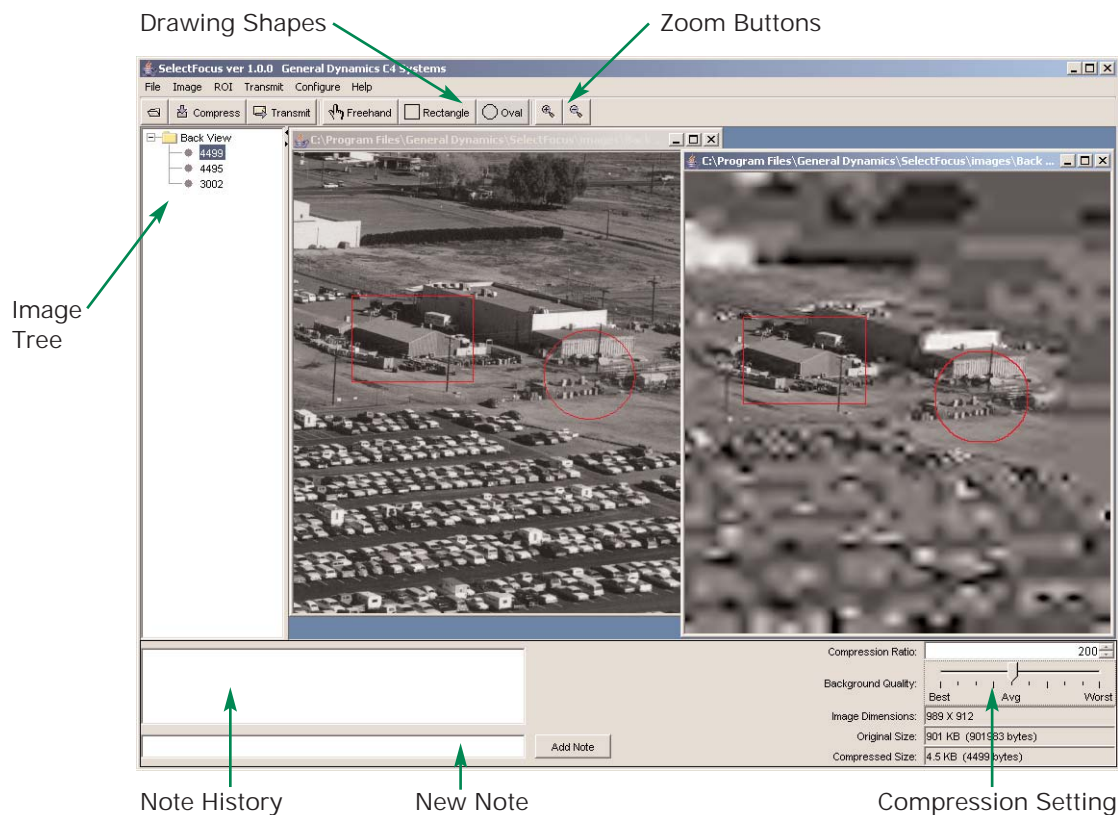
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SelectFocus™ Selectable ROI Image Compression Software

Performance Characteristics

<i>System Requirements</i>	Windows 9x/NT/2K/XP
<i>Supported Image File Format</i>	tiff, tif, gif, jpg, png, and pgm format
<i>Compression Scheme</i>	Modified JPEG2000 uniform and ROI-based compression
<i>Supported ROI Contour Shapes</i>	Freehand, Rectangle, or Oval
<i>Image Manipulation Functions</i>	Zoom In and Zoom Out
<i>Image File Management</i>	Custom Image Tree display
<i>Text Annotation</i>	Text notes can be added to any image and transmitted as part of the image header

Image Recompression Previously compressed images can be recompressed, and new ROIs and notes can be added



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8201 E. McDowell Road, MD H2036, P.O. Box 1417 • Scottsdale, AZ 85252-1417
Tel (480) 726-1048 • Toll Free (877) 449-0600 • FAX (480) 449-0559
Email: customer.service@gdds.com • <http://www.gdds.com/satelliteservices>
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