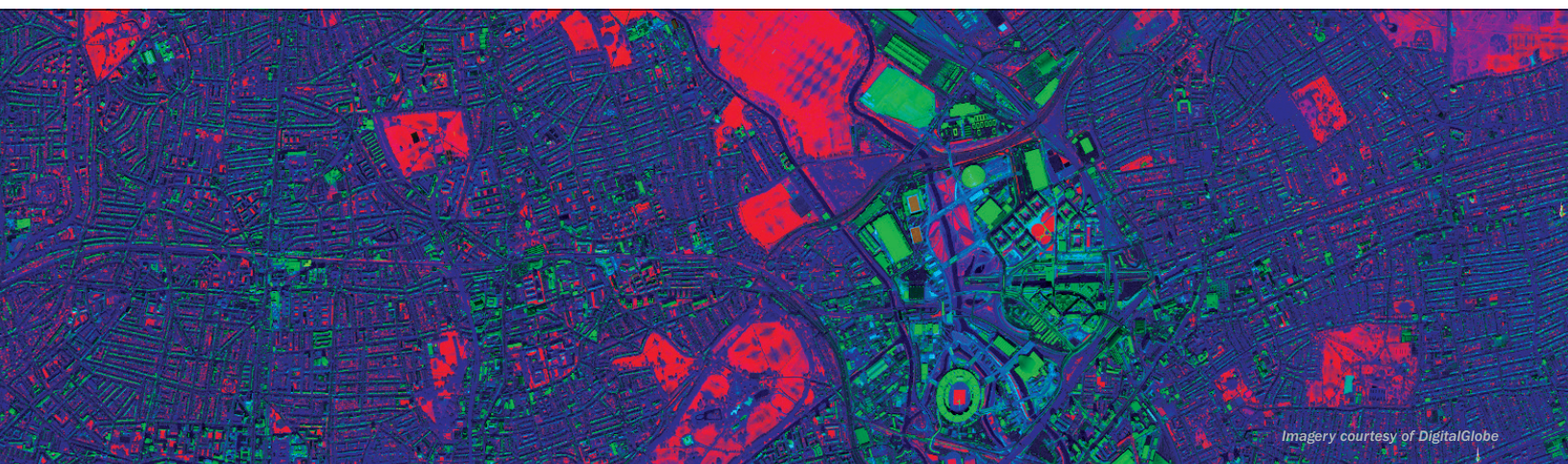


SOCET GXP® AT-A-GLANCE

SPECTRAL CAPABILITIES



Imagery courtesy of DigitalGlobe

ANOMALY DETECTION

- Gaussian mixture
- Global
- Local

ATMOSPHERIC CORRECTION

- Dark subtraction
- AAIC atmospheric correction
- Internal average relative reflectance
- Reflectance calibration (empirical line method)

BAND COMPOSITES

BAND MATH

BAND RATIOS

- Customized band ratios
- Normalized Difference Vegetation Index (NDVI)
- Normalized Difference Water Index (NDWI)

BAND STATISTICS

CHANGE DETECTION

CLASSIFICATION RASTER REFINEMENT

- Includes real-time algorithms:
 - Cluster
 - Fill
 - Filter

COLORIZATION (SINGLE BAND)

- Dynamic look-up table creation

COMPONENTS ANALYSIS

- Independent components analysis
- Minimum noise fraction
- Principal components analysis
- Spectral unmixing

CONVOLUTION FILTERS

- Edge detection
- Sharpen
- Smooth

DECORRELATION

GENERATE VECTORS

- Customized auto-attribution (area, perimeter, etc.)
- Supervised classifications and colorization bins

HISTOGRAM MANIPULATION AND TRANSFORMS

- Adjusted linear %
- Equalization
- Fixed multiplier
- Invert pixels (individual or all bands)
- Linear %
- Linear 2%
- Linear fixed
- Linear piecewise
- Min/max
- Normalization
- Square root

IMAGE ENHANCEMENTS

- Brightness, contrast, gamma, saturation, and sharpness
- Dynamic Range Adjustment (DRA)
 - Lock DRA
- Pseudocolor/grayscale

IMAGE PRE-PROCESSING

- Basic destriping

MORPHOLOGICAL FILTERS

- Close
- Custom
- Dilate
- Erode
- Open

PAN SHARPENING

- Includes real-time algorithms:
 - Brovey
 - Ehlers fusion
 - IHS
 - IHS NIR

SCATTER PLOT

- Color by frequency
- Classify image from scatter plot
- Dynamic class color adjustment

SIGNAL-TO-NOISE RATIO CALCULATIONS

SPECTRAL BAND MASKS

SPECTRAL PROFILES

- Arbitrary
- Line
- Point
- Sample

SUPERVISED CLASSIFICATION

- Point and polygon pixel selection
- Real-time thresholding
- Spectral signatures
- USGS libraries included
- Eight matching algorithms included
 - Absolute correlation
 - Adaptive cosine estimator
 - Adaptive matched filter
 - Constrained energy minimization
 - Mahalanobis distance
 - Normalized Euclidean distance
 - Spectral angle mapper
 - Spectral similarity value

UNSUPERVISED CLASSIFICATION

- Dynamic class color adjustment
- Includes three algorithms:
 - ISODATA
 - K-means clustering
 - Tasseled cap

XPORT MULTIPOINT®

- Real-time simultaneous exploitation of multiple band combinations and spectral algorithms
- Up to 16 different views of the image

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