



HEXAGON

SAR Capabilities in ERDAS IMAGINE and M.App X

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SAR Capabilities in ERDAS IMAGINE and M.App X

These feature comparison matrices indicate which product contains which SAR functionality. For example, ALOS PALSAR imagery can be directly read with IMAGINE Essentials, IMAGINE Advantage or M.App X products. But Time-Series Coherence Change Detection (CCD) requires IMAGINE SAR Interferometry.

Note that ERDAS IMAGINE product tiers are cumulative, so IMAGINE Advantage includes all functionality from IMAGINE Essentials, and both IMAGINE Professional and IMAGINE Photogrammetry products include all functionality from both IMAGINE Essentials and IMAGINE Advantage.

SAR Data Importers

Feature	Tiers of ERDAS IMAGINE		
	IMAGINE Essentials	IMAGINE Advantage	M.App X
RADARSAT-1 multiple formats	●	●	
ERS-1, -2 multiple formats	●	●	

SAR Data Direct Read

Feature	Tiers of ERDAS IMAGINE		
	IMAGINE Essentials	IMAGINE Advantage	M.App X
ALOS PALSAR multiple formats	●	●	●
COSMO-SkyMed	●	●	●
EnviSAT ASAR	●	●	●
KOMPSAT-5	●	●	●
PAZ1	●	●	●
RADARSAT-2	●	●	●
RISAT-2	●	●	●
Sentinel-1	●	●	●
SICD-formatted NITF data	●	●	●
TanDEM-X	●	●	●
TerraSAR-X	●	●	●

SAR Data Visualization

Feature	Tiers of ERDAS IMAGINE		ERDAS IMAGINE Add-Ons	
	IMAGINE Essentials	IMAGINE Advantage	IMAGINE SAR Feature	M.App X
Drag-and-drop data loading to the viewer	●	●		
Visualize Complex data as magnitude or phase	●	●		
Combine with other geospatial data in the same display	●	●		
Overlay multiple feature and image data types	●	●		●
On-the-fly geocoding and reprojection of SAR data	●	●		●
Radar Image Chain (requires IMAGINE SAR Feature license)			●	

Radar Interpreter Functions (File to File)

Feature	Tiers of ERDAS IMAGINE		
	IMAGINE Essentials	IMAGINE Advantage	M.App X
View/Edit SAR Metadata		●	
Radiometric Conversion (Beta-0)		●	
Terrain Correction (Sigma-0)		●	
Radar Shadow Mask		●	
Brightness Adjustment		●	
Texture Analysis		●	
Radar Incoherence		●	
Polarimetric Classification		●	
Sentinel-1 Orbit Correction		●	
Sentinel Bursts from Swaths		●	
AutoEnhance		●	
Magnitude Change Detection		●	
Time-Series DinSAR Displacement Service Request		●	

Sensor merge		●	
Texture enhancement		●	
Traditional Speckle Suppression		●	
Edge enhancement		●	
Wallis adaptive filter		●	
Radar conversions		●	
Magnitude and Phase (MP)		●	
Intensity and Phase		●	
Real and Imaginary (IQ)		●	
Magnitude Only (M)		●	
Intensity Only		●	
Phase Only (P)		●	
Linear to Decibels and Decibels to Linear		●	
Incidence angle mask		●	

Geometric Tools

Feature	Tiers of ERDAS IMAGINE		ERDAS IMAGINE Add-Ons	
	IMAGINE Essentials	IMAGINE Advantage	IMAGINE Expansion Pack	IMAGINE SAR Interferometry
Coregister Image Pair		●		
Orthoresample		●		
StereoSAR DEM			●	
Stack Coregistration				●

SAR Interferometry

Feature	Tiers of ERDAS IMAGINE		ERDAS IMAGINE Add-Ons
	IMAGINE Essentials	IMAGINE Advantage	IMAGINE SAR Interferometry
Wizard Workflows			●
Coherence Change Detection (CCD)			●
E-Z CCD			●
Time-Series CCD			●
Mosaic-Series CCD			●
E-Z Sentinel Coherence Change Detection			●
Sentinel Swath Coherence Change Detection			●
Sentinel Swath Processor			●
InSAR DEM Extraction			●
DInSAR Displacement Mapping			●
Time-Series DInSAR Displacement Request *	●	●	●

* The request is “free”, but the cost of the work will be negotiated based on the request.

Radar Analyst Workstation (real-time analysis)

Feature	Tiers of ERDAS IMAGINE		ERDAS IMAGINE Add-Ons
	IMAGINE Essentials	IMAGINE Advantage	IMAGINE SAR Feature
Display Modes : Magnitude, Edge Enhance, Level Slice, Displacement		●	
AutoEnhance		●	
Despeckle		●	
Blue is New		●	
Contrast Reverse		●	
Contrast Inverse		●	

Open as Radar Chain			●
Live Look Direction Indicator		●	
Marine Traffic Live Overlay *	●	●	

* Requires a Key purchased from Marine Traffic.

SAR Feature Extraction

Feature	Tiers of ERDAS IMAGINE		ERDAS IMAGINE Add-Ons
	IMAGINE Essentials	IMAGINE Advantage	IMAGINE SAR Feature
Anisotropic Despeckle			●
Road Detection and Extraction			●
Ship extraction			●
FastCFAR Target Detection			●
Adaptive Target Detection			●
Change Detection			●
Log Ratio			●
Sparsity			●
Blue is New			●

SAR Spatial Modeler Operators

Feature	Tiers of ERDAS IMAGINE		
	IMAGINE Essentials	IMAGINE Advantage	M.App X
Change From Coherence	●	●	●
Coefficient of Variation	●	●	●
Coherence From SAR Image Pair	●	●	●
Coregister SAR Image Pair	●	●	●
Subset SAR Image Pair	●	●	●



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Hexagon's Geospatial division creates solutions that deliver a 5D smart digital reality with insight into what was, what is, what could be, what should be, and ultimately, what will be.

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