ERDAS ECW/JP2 SDK

Fast, Cost-efficient Handling of Large Images in Your Application

How do you solve the problem of handling up to thousands of large imagery files? The ERDAS ECW/JP2 SDK lets software developers enable rapid and efficient file handling in their applications by including robust support for Hexagon's ECW and ISO JPEG2000 wavelet compression formats and protocols.

The ERDAS ECW/JP2 SDK provides developer file format support for the visually-lossless ECW imagery format and the ECWP protocol. Hexagon's Enhanced Compression Wavelet (ECW) technology compresses up to thousands of massive imagery files into a single compressed file. The SDK also provides support for the numerically-lossless JPEG2000, an ISO-certified compressed image format commonly used for geospatial imagery.

Customer Benefits

With ECW support, ArcGIS Server users can leverage compression technology capable of quickly decompressing and opening massive files, in many cases faster than uncompressed imagery can be opened. This powerful extension enables ArcGIS Server to deliver images much faster.
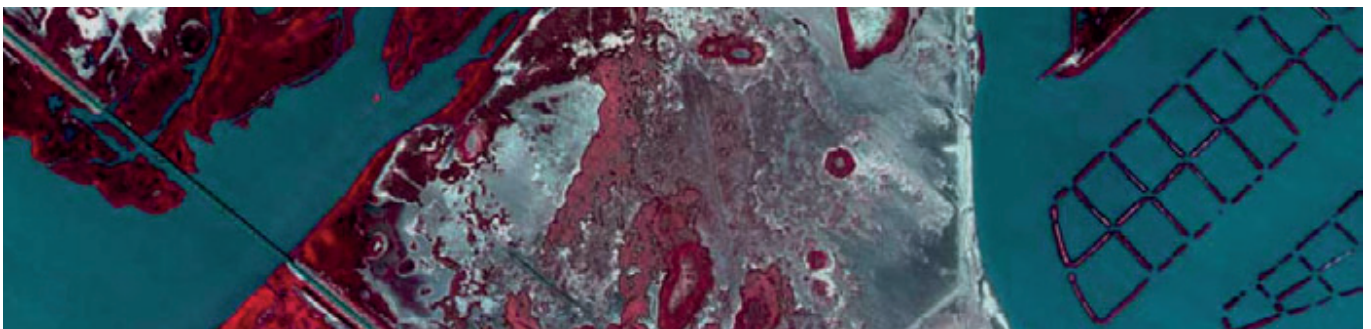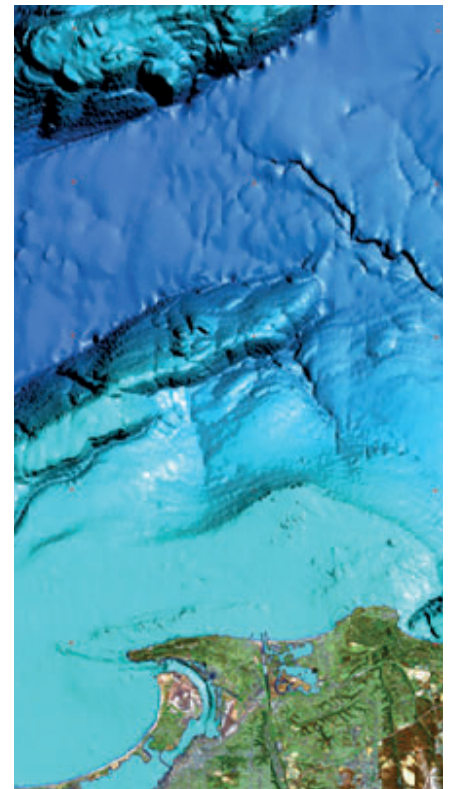
Fast

Rapidly read or compress images in the JPEG2000 and ECW formats. End users can compress up to thousands of files into a single file. Works on all major industry standard file formats, and for desktop, server, or mobile applications.

A Format that Scales

Real-world applications on images approaching 30 terapixels prove ERDAS ECW/JP2 SDK can sufficiently handle all big data imagery requirements, in any use case.
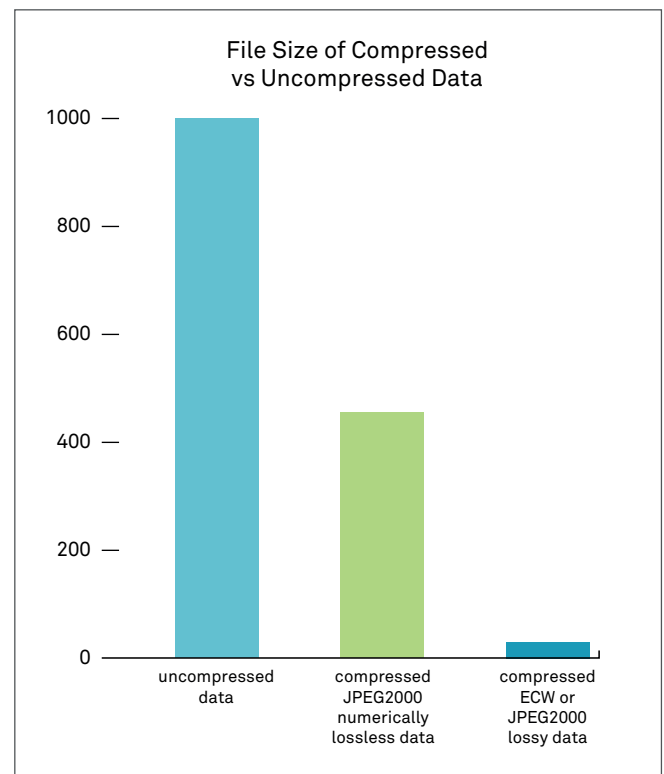
Interoperable With Other Applications

Other geospatial applications easily access ECW or JPEG2000 images. With the ERDAS ECW/JP2 SDK, you can add support for JPEG2000 and the high-performance ECW data formats to your own applications.

Additional benefits are outlined in the table below.

Features	Benefits to Your Users
Fast viewing at any resolution for any region	Fast zooming, panning, and roaming. No auxiliary, overview, or pyramid files are created during compression.
Low memory footprint	Applications run faster and use less system resources
Automatic filter for the maximum zoom level	No need for filter or configuration; actual data used
Fast lossless and lossy compression	Quickly reduce images to manageable size
64-bit, hardware-accelerated file support handles large images	Compress/decompress terapixel-sized imagery on commodity hardware. Computer clusters are not required.
Support for NITF, NPJE, EPJE	SDK appropriate for development of military applications
Widely used by GIS, CAD, imaging and office applications	Easily exchange images. Convert from ECW to any other format, at any time
Simple no-hassle licensing	No wasted development time
Supports all major Desktop, Server, and Mobile platforms	Runs on Windows, Linux, MacOS, iOS, and Android platforms to support all common platform needs
Opacity channel support	Mask out background and null data areas
Stable API bindings including C, C++, Objective-C, Android and JNI	Simplify integration into your existing platform

File Size of Compressed vs Uncompressed Data

Bar chart showing:
- uncompressed data: ~1000
- compressed JPEG2000 numerically lossless data: ~450
- compressed ECW or JPEG2000 lossy data: ~25

y-axis values: 0, 200, 400, 600, 800, 1000

About Hexagon

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications. Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's Geospatial division creates leading platforms, applications and solutions for visualizing, analyzing, and deriving insight from location data. By interconnecting the geospatial and operational worlds, we help customers of all sizes – from sites to cities to nations – use 5D location intelligence to solve real-world, mission-critical challenges.

From snapshots in time to real-time streams, our technology enables autonomous connected ecosystems that deliver reliable, repeatable location information. We shorten the loop from data acquisition to action, helping clarify what was, what is, what could be, what should be, and ultimately, what will be, so we can build a thriving, sustainable world.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 4.3bn USD. Learn more at hexagon.com and follow us @HexagonAB.

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GEOSYSTEMS is a solution provider in the geospatial arena and helps public authorities, private companies and educational organizations to easily transform location-based data into actionable information. As Hexagon diamond partner, GEOSYSTEMS offers not only lead-ing-edge products for remote sensing, photogrammetry, GIS and data management, but also M.App solutions for easy-to-use dynamic map experiences. In addition, GEOSYSTEMS develops customized applications, implements tailor-made workflows and provides excellent trainings.

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