



## ROBUST DATA COMPRESSION AND RAPID DELIVERY WITH ECW TECHNOLOGY

Managing big data can be challenging – especially large volumes of geospatial imagery that are constantly changing. Organizations today require superior solutions for storing massive raster libraries and delivering data on demand.

Consumers want high quality imagery delivery, and expect data to stream rapidly into their chosen desktop, web, or mobile application. Raster data repositories continue to expand at an increasing rate as imagery is collected more frequently, over larger coverage areas, and at higher resolutions and bit depth.

As a consequence, pressure is growing to reduce storage space and the associated management cost, while also decreasing server loads and network traffic for data delivery. Despite cheaper storage solutions and increasing processing power, housing imagery is still a constraint and a significant infrastructure cost.

### FAST, HIGH-QUALITY IMAGE COMPRESSION WITH ECW

Hexagon Geospatial's Enhanced Compression Wavelet (ECW) is a high-performance, image-compression format designed specifically for geospatial imagery.

ECW technology provides exceptional compression, capable of reducing terabyte-sized files to five percent of their original size, while retaining the image's full visual quality. As well as delivering lightning-fast display performance, this optimized compression technology also enables faster processing and transfer of imagery throughout an organization, reducing overall data duplication and storage costs.

It also makes the data more accessible to users thanks to broad industry support for the ECW format. ECW provides the industry's fastest decompression and compression rates. Remarkably, this is achieved with minimal hardware requirements (due to extensive format optimizations) and outperforms alternative storage formats such as JPEG 2000, MrSID, Esri® raster geodatabase, or compressed GeoTIFF files.

### LIGHTNING FAST STREAMING WITH ECWP

Today's geospatial consumers expect instant data delivery. The Enhanced Compression Wavelet Protocol (ECWP) provides the ultimate image delivery performance by delivering ECW and JPEG 2000 data in a progressive manner over standard HTTP infrastructure. This progressive transmission of compressed data effectively creates a distributed decompression environment in which the clients decompress the data stream as it is received, creating instant user feedback while offloading processing from the server.

The patented ECWP protocol allows ERDAS APOLLO customers to support thousands of users on standard, entry-level server hardware with incredible user experience. No other geospatial image server has equivalent capabilities that deliver imagery as fast, with as little hardware requirements, as ECWP.



## WHICH HEXAGON GEOSPATIAL PRODUCTS COMPRESS AND STREAM ECW?

Hexagon Geospatial provides products to create ECW files and rapidly stream data via ECWP.



Create an unlimited number of ECW and JPEG 2000 compressed images from input images of up to 250 gigapixels, with either export or direct-write.



Securely disseminate massive volumes of imagery using ECWP, ensuring robust performance and integration into other applications.



This stand-alone, high performance geospatial image and point cloud compression application simplifies the creation of ECW, JPEG2000 and HPC formats.

## WHICH HEXAGON GEOSPATIAL PRODUCTS READ ECW?

Existing Hexagon Geospatial geospatial customers benefit from superior compression and serving capabilities.



The ECW display workflow is exactly the same as that for conventional imagery inside GeoMedia, only it's much quicker and requires far less data.



Stream raster backdrops via ECWP to remove client pre-cache processing and cache volume requirements, all while delivering exceptional display performance for the user.



ECWP gives GeoMedia WebMap applications superior image delivery performance and substantially reduces the client cache space requirements.



Leverage ECWP's fast streaming to enable instant delivery, into this rich image processing and analysis package, removing lengthy delays downloading files.

## CAN I USE ECW IN THIRD PARTY SOFTWARE?

ECW format technology ensures exhaustive platform support across all major GIS, CAD, and remote sensing packages, including third party geospatial solutions on the desktop and in the web.



A robust SDK for developers to create rapid and efficient file handling in their applications, for selected wavelet compression formats and protocols.



Extend the significant format and streaming advantages of ECW and JPEG 2000 into the Esri desktop environment. Achieve faster throughput than the native standard ECW support provided by ArcGIS for Desktop.



ECW for ArcGIS Server enables ECW imagery to be served through ESRI-supported service interfaces.



Greatly improve AutoCAD raster handling with ECW compression.

The patented ECWP protocol allows ERDAS APOLLO customers to support thousands of users on standard, entry-level server hardware with incredible user experience. No other geospatial image server has equivalent capabilities that deliver imagery as fast, with as little hardware requirements, as ECWP.

### **CAN I ORGANIZE AND MANAGE MY IMAGERY WITH OTHER DATA?**

Customers who currently own ERDAS APOLLO Essentials may have a swiftly growing collection of imagery and other big data. Upgrading to ERDAS APOLLO Advantage provides added value for organizing all spatial and business data within the enterprise. End users can drill down into the entire data archive and very quickly find specific imagery and other data they require to create a tailored view.

Also, the organization can offer self-service data retrieval and increased efficiency by providing data extraction via Clip, Zip, and Ship, and outputting to ECW format.

### **CAN I ENABLE END USERS TO CREATE VALUE-ADDED DATA ON DEMAND?**

Customers who currently own ERDAS APOLLO Essentials can get more out of their image archive by enabling multitudes of end users – many of who may have very little domain knowledge – to create value added products from thin web clients. By upgrading to ERDAS APOLLO Professional and ERDAS IMAGINE, spatial models can be created and published for consumers to execute on demand. This end-to-end geoprocessing workflow occurs directly on the server using one collective data pool, saving bandwidth, time, and disk space.



No other geospatial image server has equivalent capabilities that deliver imagery as fast, with as little hardware requirements, as ECWP.





## About Power Portfolio

The Power Portfolio from Hexagon Geospatial combines the best photogrammetry, remote sensing, GIS and cartography technologies available. Flowing seamlessly from the desktop to server-based solutions, these technologies specialize in data organization, automated geoprocessing, spatial data infrastructure, workflow optimization, web editing, and web mapping. The Provider Suite enables you to comprehensively manage and deliver volumes of geospatial and business data.



## About Hexagon Geospatial

Hexagon Geospatial is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications. Learn more at [hexagon.com](http://hexagon.com).

## About Imagem

Simplified information helps us focus and solve complex issues. At Imagem we help improve communications and accelerate business by simplifying big data around us into personalised information. We provide intelligent, innovative and dynamic solutions that help people make smarter decisions. Our hybrid solutions on location-based information, spatial analytics and business intelligence help policy makers, managers and end users be more responsive to the ever changing world. Imagem is premium partner of Hexagon Geospatial, and distributor for the Netherlands, Belgium and Luxembourg. For more information visit [imagemnl.com](http://imagemnl.com).