

Corporate Spatial Data Infrastructure Imagery Strategy

Geomatics Yukon's objectives for serving the imagery:

- To ensure internal clients have access to all best available imagery in a timely manner;
- To ensure internal clients easily know which imagery to use;
- To maximize imagery performance;
- To allow select clients full access to imagery for specific projects, such as spatial analysis, offline access, etc.
- To minimize direct file access (as this locks the file which limits administration and affects performance);

Access to Yukon Government's Imagery:

Geomatics Yukon has found ESRI's ArcGIS Server 10 Image Services to be the best technology for efficiently and effectively distributing large imagery data sets. As such we are striving to make all the Yukon Government's imagery available using this technology. It allows users to access one seamless imagery layer from the server for each type of satellite. This layer will include all the scenes that are available for that satellite. This prevents clients from having to transfer massive quantities of imagery to their own machine. For example the Quickbird image service contains 39 images which take up 126 Gb on the server, and it can be dynamically served over the network by sending smaller images generated by the image service based on the extent viewed and the resolution required.

We are moving away from storing imagery on GALAXY ([\\galaxy\imagerep](#)) because this server is old, it is not backed up, and it doesn't have the capacity to hold all of our imagery. Imagery will now be stored on a new server STORESTATIC ([\\STORESTATIC\geo-data](#)) and will be served up through ArcGIS Server 10 Image Services.

We are currently in the process of building image services for the entire image repository. However, due to the amount of imagery, 2-3 Terabytes, it takes considerable time to build these services. In the interim, the imagery will be available through a combination of technologies:

- Shared Layerfiles
- New ArcGIS Server 10 image services
- Legacy Image Server 9.3.1 image services
- File-based on [\\Storestatic\geo-data](#)

Understanding STORESTATIC's file management structure:

STORESTATIC\geo-data is the primary source for all Yukon Government imagery in any format. The best available data will always be found here.

- All imagery is initially divided into two categories and hence two directories based on their license status:
 - Public – all imagery contained in this directory is publicly accessible and can be shared with the public
 - Internal – all imagery contained in this directory is licensed to the Yukon Government and can only be used internally
- Imagery will then be organized by sensor and then by study area (if applicable):
 - GeoEye
 - WorldView
 - Quickbird
 - Ikonos
 - SPOT
 - IRS
 - Radarsat
 - Cartosat
 - Orthophotos
 - Landsat
 - DEM
 - Shaded Relief
- Each sensor and/or study area will be organized into, and may include, the following directories:
 - Unprocessed
 - Interim_processed
 - Processed
 - MosaicDatasets

The role of each directory is described below:

- **Unprocessed** – Raw imagery received from the satellite vendor. These scenes have received no post processing and are therefore not easily used.
- **Interim_processed** – Imagery has been orthorectified and colour-balanced and can be used for file-based access. This directory will be removed once the mosaic dataset has been finalized.
- **Processed** – Imagery is in a format that performs efficiently with mosaic datasets and no further processing is required.
- **MosaicDatasets** – This directory contains a file geodatabase that holds the mosaic dataset. The mosaic dataset references the images in the Processed directory.

How to access imagery using the new infrastructure:

1. Configure your computer for the new infrastructure. In Windows Explorer, create two Mapped Network Drives for:
 - Shared layerfiles directory: <\\sdecsw\csw\layerfiles>.

- New imagery repository: <\\storestatic\geo-data>.
2. Add the layerfile (from <\\sde\csw\layerfiles\imagery>) for the imagery you need. A layerfile will be created for any imagery served through an image service.
 3. If a layerfile is not present, please consult the <\\storestatic\geo-data> directories. Check the Unprocessed or Interim_processed directories.

Education

We are aware that this is a significant transition for our clients. We intend to provide optional workshops to help clients use these new technologies. These workshops will be held in November once we have more image services available.

Access to the Imagery Repository

The new image repository will be available to anyone in the Yukon Government; however, access to the repository is managed by Geomatics Yukon and will be based on an imagery distribution list. If a new user requires access to the imagery they should contact Geomatics Yukon and then they will be added to the list and granted read access. This process is necessary to allow Geomatics Yukon to properly administer the image repository.

Copyright Imagery

The following imagery is publicly accessible and can be freely given out to the public:

- Orthophotos (all)
- Landsat
- DEM
- Shaded Relief
- SPOT (from Natural Resources Canada)

The following imagery is copyrighted to the Yukon Government and can only be used internally. If a First Nation government or an external contractor working with the Yukon Government requests this imagery it may be available through Geomatics Yukon by signing an imagery sharing agreement. PLEASE DO NOT DISTRIBUTE THIS IMAGERY OUTSIDE OF THE YUKON GOVERNMENT. Contact Geomatics Yukon if there is a question.

- GeoEye
- WorldView
- Quickbird

- Ikonos
- SPOT (from Yukon Government)
- IRS
- Radarsat
- Cartosat

If someone requests imagery from you and you are uncertain, please contact Geomatics Yukon. If you hear of anyone distributing copyright imagery outside the government, please let us know so we can educate these people or educate them yourselves.

For more information about our CSDI Imagery Strategy, contact:

Nicole Parry
Geomatics Yukon
Nicole.Parry@gov.yk.ca
667-5844

For technical support using the imagery, contact:

Geomatics.Help@gov.yk.ca
Geomatics Yukon