The data obtained by optical satellite sensors with high spatial resolution has become an invaluable tool for many groups interested in studying, managing, developing, and protecting our population, environment, and resources. Unfortunately, satellite images are often obscured by atmospheric effects like haze as a result of conditions in the atmosphere at the time the image was captured.

Module Prerequisites

GXL Cloud Detection and Haze Removal is an add-on to the base system. It requires a GXL system as a pre-requisite.

GXL Cloud Detection and Haze Removal

GXL Cloud Detection and Haze Removal provide a workflow that allows you to build a higher-quality mosaic:

The Haze Removal workflow allows you to calculate water and cloud masks for the input scene, and remove haze from images before performing atmospheric correction, thematic classification, or creating a mosaic.

This workflow generates an image containing raw DN values (scaled radiance) that have been corrected for haze. The output also includes all the pre-classification masks (haze, cloud, and water).

Supported Sensors

The following sensors are supported:

- ALI
- ALOS Avnir-2
- Aster
- DMC
- Formosat-2
- Geoeye-1
- IRS-1A
- IRS-1B
- IRS-1C
- IRS-1D
- IRS-P6
- Ikonos-2
- KOMPSAT-2
- Landsat-4 MSS
- Landsat-5 MSS
- Landsat-4 TM
- Landsat-5 TM
- Landsat-7 ETM+
- OrbView-3
- Pleiades
- QuickBird
- RapidEye
- SAC-C
- SPOT-1
- SPOT-2
- SPOT-3
- SPOT-4
- SPOT-5
- Worldview-2

FUNCTIONS

With a GXL Cloud Detection and Haze Removal license, license, the following functions are activated:

- BIT2POLY – Conversion of bitmap mask to vector polygon
- HAZEREM – Remove haze from satellite imagery
- MASKING2 – Create cloud, haze and water masks from satellite imagery