

# GEOSPATIAL INTELLIGENCE QUALITY ASSURANCE AUTOMATION FRAMEWORK

## NEAR REAL-TIME ANALYTICS AND REPORTING

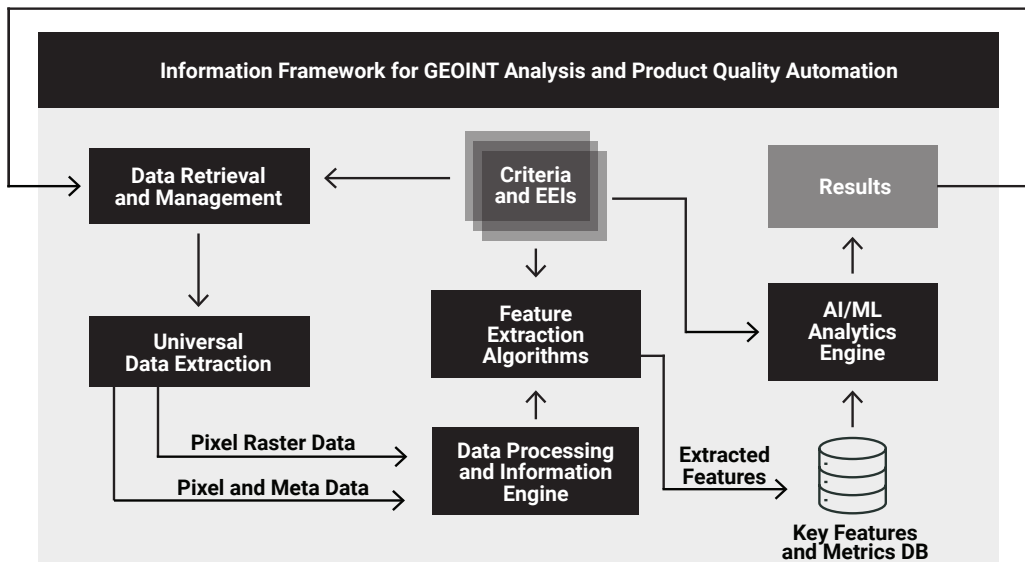
The Geospatial Intelligence (GEOINT) Quality Assurance Automation Framework is a cloud-based data analytics and automation framework developed for image scientists, product quality systems engineers, and/or GEOINT analysts.

This framework delivers near real-time analytics and reporting capability, specifically in support of GEOINT analytics for intelligence missions and product quality assurance, to GEOINT data providers and functional managers delivering operational GEOINT. The system is extensible to support generalized GEOINT data processing and analytics—enabling scientists and engineers to quickly implement specialized data analytics solutions for a variety of mission applications.

Peraton’s solution provides a cloud-based framework that integrates directly into the data dissemination flow and executes automated metrics extraction and analytics against defined criteria, thereby avoiding the need to manually execute product quality assessments on a limited data sample.

## KEY CAPABILITIES/DELIVERABLES

- A data retrieval and management system (DRMS) for data cataloging and retrieval
- A modular data processing and informatics engine (DPIE) that hosts and executes cloud based data analytics; the DPIE interfaces with a structured query language (SQL) database to store key features extracted from GEOINT data
- A universal data extractor (UDES) that parses any GEOINT file format to expose both pixel/raster and support data to the DPIE for processing. This offers a standardized, streamlined approach for efficient algorithm development and implementation. The UDES uses a schema-based validation format approach which supports data governance and product quality assurance
- An artificial intelligence/machine learning (AI/ML) analytics engine (AMEA) which interfaces with the key features database to perform sense-making analytics against defined success criteria and essential elements of information



## SOLUTION COMPONENTS

- DRMS
- UDES
- Data Processing and Information Engine (DPIE)
- Key features and metrics database (KFMDB)
- AI/ML AMAE

