

About This Information/Guidance Document

Current Status *I/G-Active*

Standard Identifier FSMMG v1.0

Title of Standard

Frame Sensor Model Metadata Profile Supporting Precise Geopositioning, Version 1.0, 13 June 2007

Standards History

Date Active	Date Inactive
2007-11-06	n/a

Standards Body

[DoD](#)

[Broken Link?](#)

URL to Access or Acquire

<http://www.csmwg.seicorp.com/>

Standard Applicability

2007-11-08

This Frame Sensor Model Metadata Profile Supporting Precise Geopositioning information and guidance document details the various parameters to be considered when constructing a frame sensor model capable of enabling photogrammetric equations to establish the geometric relationship between sensor, image, and object imaged. A frame sensor is one that acquires all of the data for an image (frame) at an instant of time.

Standard Abstract

2007-11-08

The Frame Sensor Model Metadata Profile Supporting Precise Geopositioning information and guidance document details the various sensor and collection system (platform and other external sources of data) parameters to be considered when constructing a frame sensor model capable of providing the minimum essential metadata necessary to support the capability of precise geolocation. A compilation of the fundamental metadata that the sensor must provide such that an exploitation tool can recognize the sensor, and therefore, those parameters specifically required to define the image geometry. A frame sensor is one that acquires all of the data for an image (frame) at an instant of time. Typical of this class of sensor is that of having a fixed exposure and is comprised of a two-dimensional detector or array; e.g., focal plan array (FPA) or Charge-Coupled Device (CCD) array. The term sensor usually refers to digital collections; camera is typically used to denote use of film-based collectors. The focus of this document is upon those sensor properties necessary for accurate and precise geolocation with electro-optical (visible) frame sensors and not on the spectral sensitivity of the sensor; although the definitions and development apply equally to film and infrared (IR) arrays.

Products Incorporating This Standard

None

Relevant Information

Use of the information provided within this document will enable the design, development, and Validation and configuration management of geopositioning capabilities across the DoD Distributed Common Ground/Surface System (DCGS) within the Imagery Intelligence (IMINT) Community. This document is a GWG Community Sensor Model Working Group (CSMWG) sponsored and authored work item. The intent of the document is to provide technical details on the various parameters a sensor developer must consider when designing and constructing a sensor and attendant sensor

model.

Implementation Guidance

None

Standard Selection Criteria

Net-Centric Interoperability

This information and guidance document supports and significantly enhances Joint and/or combined Service/Agency information exchange and supports Joint and coalition activities.

Technical Maturity

The Frame Sensor Model Metadata Profile Supporting Precise Geopositioning information and guidance document has been exhaustively vetted through the DoD and Intelligence Community (IC) Sensor Model Program POCs. Additionally, numerous representatives of industry and academia supporting either sensor model development or application tools using sensor models have reviewed and coordinated on this guidance document.

Public Availability

The Frame Sensor Model Metadata Profile Supporting Precise Geopositioning information and guidance document is not proprietary and is publicly available.

Implementability

The information and guidance provided in this document has been formally adopted and implemented by the Air Force, Navy and NGA. The AF, under its Sensor Model Program, and NGA have completed numerous sensor models using the guidance provided by the document.

Authority

The Frame Sensor Model Metadata Profile Supporting Precise Geopositioning information and guidance document is a DoD and IC document prepared by the National Geospatial-Intelligence Agency (NGA).

Standard Type Military

Keywords for Search None