

Definition of Terms

This is not a universal definition of terms, but a description of how these terms are being used in the CineSat documentation.

Automatic Product Extraction Facility (APE)

A configurable software component that is continuously active on the CineSat Server to extract near real-time forecast products from the received input data.

Calibration

Raw data to radiance and temperature conversion

The process of relating the image sensor output in image pixel units (digital counts) to the measured physical units (e.g. $\text{Wm}^{-2}\text{sr}^{-1}$ or a temperature unit K° , F° , or C°)

CineSat Server

High-performance Unix server or workstation providing sophisticated capabilities for meteorological image analysis and the interactive and automatic production of short-range weather forecasts

CineSat Workstation

A physical or virtual Linux workstation with high-quality and high-performance graphic capabilities running the CineSat GUI for displaying CineSat weather products, interactive data analysis, and development of new weather products.

Component

General term for a part of a system. Components may be assembled and decomposed to form new components. Components can be meant as modules, tasks or programs, any of which may be configuration items.

Configuration Data

ASCII text files containing parameter specifications that control the execution of CineSat functions.

Distribution

The process of sending data to a number of systems (recipients) through specified interfaces, according to agreed protocols.

Front Editor

A CineSat tool to draw and edit weather charts and image overlays.

Interface Control Document (ICD)

A specification of an interface between two systems, or a summary of all interfaces of a single system.

Maintainability

The ease with which software and hardware can be maintained.

Map Editor

A CineSat tool to define and edit geographical map projections.

Near Real-time Processing

Data processing results are available a few minutes after reception of the required input data.

Nowcast

Short-range weather forecast for the next 0 to 3 hours. This forecast time range is of increasing importance for aviation and hazard warning and requires high-performance automatic data processing support for the operational forecaster.

Processing Chain

CineSat's Automatic Product Extraction Facility consists of a number of processing chains that poll for external or internal input files and derive a group of weather products. Processing chains may be set up separately e.g. for each data source, for certain product groups, or for research and test purposes.

Product

Generic term for a result data file (usually image or table data) derived from external input data or from other CineSat products.

Projection

Image projection is the mapping of geographical coordinates to image pixel coordinates. The transformation of image coordinates to geographical coordinates is called inverse projection.

Quality Control

The process of automatically or manually (interactively) checking the extracted products with respect to their conformity with their specifications and according to predefined criteria and operator expertise. Quality control is performed before the distribution of the products, and only quality controlled products will be distributed.

Reception

The process of receiving data through specified interfaces according to agreed protocols.

Reliability

The probability that software and hardware will not cause the failure of a system for a specified time under specified conditions.

Satellite Zenith Angle

The angle measured from a position on the earth pointing towards the satellite and to the zenith.

Script

Unix Bourne-Shell command script

Site

The geographical location where the CineSat Software is installed or used.

Slot

The interval between the nominal times of two successive real-time images. The slot duration for modern geostationary satellites is 15 minutes. A day consists of 96 slots, i.e. 96 sets of multi-spectral scans of the earth.

Supplementary Data

All input data other than direct image data that are required to extract a specific meteorological product.

Sun Elevation

The angle measured between the line from a position on the earth pointing towards the sun and the tangent plane at this position. (An elevation of zero means that the Sun is directly at the observer's horizon - sunset).

Sun Zenith Angle

The angle measured from a position on the earth pointing towards the sun and to the zenith.

User Display Station

A workstation used for display of various meteorological data and capable of displaying CineSat weather products.

Verification

Comparison of extracted products with observations and other independent data sets.

Zenith

An imaginary point directly "above" a particular position on the Earth.

See [Abbreviations and Acronyms](#)