

## Key Arguments for CineSat

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- Unique Nowcasting Products
- Real-time Performance
- Quality Control and Enhancement

### Unique Nowcasting Products

CineSat provides you with weather information that cannot be found elsewhere:

- Real-time prediction of cloud movement,
- Accurately predicted cloud images
- Analysis of current cloud development
- Fully automatic convective cell analysis
- Full meteorological image processing
- Rich meteorological and cartographic image processing (more ...)

And you can obtain all this information in real-time and over the full area covered by your satellite images.

### Real-Time Performance

Time is a crucial factor in operational nowcasting - and real-time methods are mandatory.

CineSat's core algorithms are optimized for super-fast performance while still delivering highly accurate results, e.g.

- CineSat's projection library remaps images about 12 times faster than standard libraries like PROJ, and
- CineSat's motion analyser computes the movement of clouds more than 20 times faster than standard image processing techniques used in satellite ground segments.

This means, you can

- Produce more weather products in less time
- Serve more customers with tailored, real-time weather products
- Better utilize your existing data
- Significantly save hardware expenses
- Make intensive algorithms useful for interactive use

This performance is achieved by new algorithms and mathematically optimized procedures.

In typical configurations, CineSat computes e.g. the

- Current and predicted cloud movement
- Predicted satellite images for the next 3 hours in 15 minute steps
- Predicted trajectories for hundreds of cloud related observations
- Current cloud development maps
- Full convective cell analysis, and
- Smoothly interpolated animation movies in 3 minute steps

. . . within minutes after image reception.

This makes CineSat a valuable tool for processing the 15-minute full Earth disks from all geostationary satellites as well as the 1-5 minute rapid scans as provided by modern satellites.

## Quality Control and Enhancement

CineSat does not only run an automatic meteorological quality control of its kernel products, but goes an innovative step further:

CineSat uses the result of quality control for iterative improvement of product quality.

Both procedures - quality control and quality enhancement - operate automatically, and can be controlled and tailored by user parameters.