Key Arguments for CineSat

- 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.