

Meteor

Satellite IMAGE PROCESSING SYSTEM

FEATURES

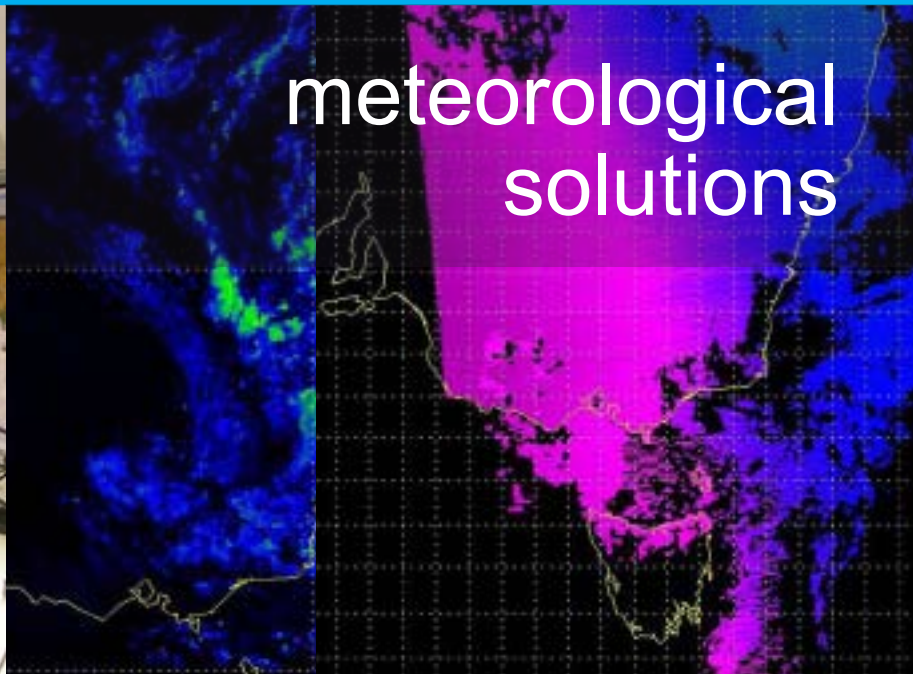
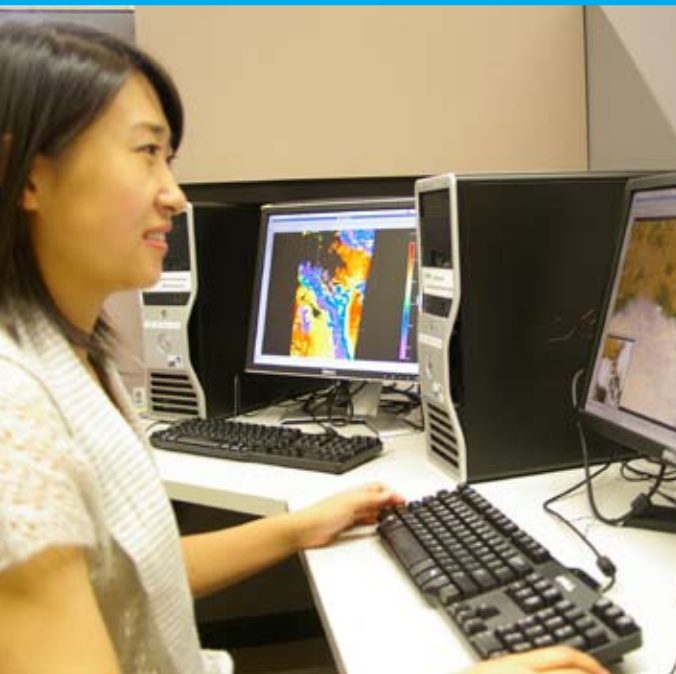
- Multiple image display
- Image zooming and zoombox panning
- Grid overlays
- Coast outline overlays
- Topography and river overlays
- Animation loops (auto updatable)
- Range/bearing and speed calculations
- Multiple map projections
- Application or user defined color tables
- Histogram, Scatter & Transect plots
- Histogram equalisation
- Brightness and contrast image enhancements
- Integration with dissemination operations

APPLICATIONS

General meteorological processing applications include:

- Analysis of satellite data
- Generation of animation loops
- Creation of output products for forecasting, distribution & media release
- Still pictures and animation sequences
- Facilities for analyzing satellite images for general weather forecasting purposes

SOFTWARE



METEOR is a multi-platform meteorological forecaster application, designed to display and analyse satellite imagery.

It includes the traditional image processing and analysis functions, and has been enhanced with extra functionality to make it particularly suitable for the analysis of remote sensing data.

The METEOR package is capable of displaying image data from all meteorological satellites.



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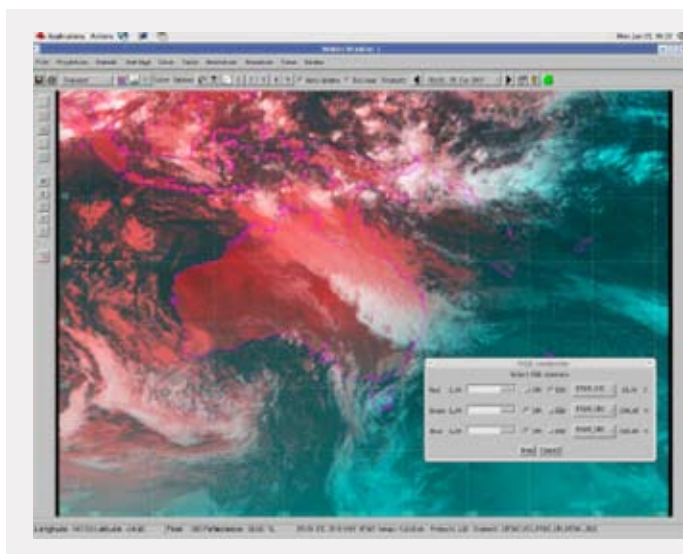


TECHNICAL SPECIFICATIONS

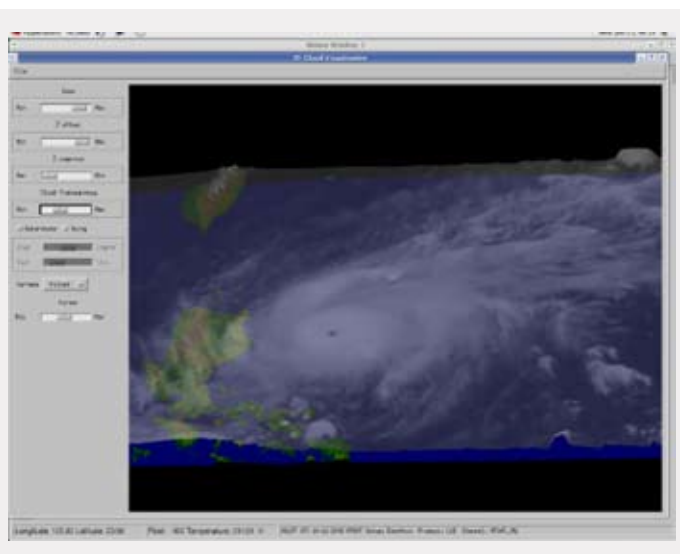
FUNCTION

NOTES

Cursor display	Pixel value, physical value (temp or albedo) and lat/lon of the cursor position are displayed.
Configuration Selection	Based on SETUP files. Setup files determine parameters of automatic image generation.
SETUP file Parameters	Data channel
Map projection	Notes
Image resolution	For packetized data, output to be compatible with RTSTPS
Geographic coverage (plus others)	For non-packetized data, output is raw data RS232 (for command and status)
Predefined SETUP files	Full Globe
Half Globe	Satellite (sets demod type, rate etc), bit rate, test mode
Quarter Globe	Signal strength, lock, satellite type, demod type, command and traffic indicators
Simultaneous window displays	User can select up to four image simultaneously opened display windows.
Generation of MPEG2 or AVI	Animation loops can be saved as MPEG2 or AVI files, with user specified speed and image quality. These files can be used to output directly to PAL/NTSC format (for display on a monitor) if video output card is available.
Topography Map	Provision is made for the overlaying of animation or still pictures over a suitably formatted topography map.
Colour LUTs	Selection of 10 pre-defined lookup tables for met applications. Up to 50 user defined tables.
2x2 km res Overlays	Inbuilt Overlays: Gridlines Political boundaries and coastlines Latitude Longitude labels User defined overlays: User can define Overlays using drawing primitives
Annotation	Automatic annotation of satellite name, data and time to images and animations.
Zooming and Panning	Zooming and panning are controlled by mouse
Movie Loop Display	Up to 48 image animation loops can be generated from a) time span b) last picture and total number c) mouse highlighting from selection Animation loop can be automatically updated with the latest satellite image. Full control of the animation loop: (start/stop, dwell, speed, direction, end delay)
Image combination	Arithmetic combination of images can be used to generate new images. Operations can be on pixel or physical values (temperature or albedo).
Generation of standard image formats	Images can be saved as PNG, BMP, TIFF, PS, or JPEG.



Example RGB (MTSAT Red: VIS, Green: IR1, Blue:IR2)



MTSAT IR1 : 3D Animation TC Chebi approaching the Philippines