



Reception, Processing and
Display of Satellite Imagery

Display of
Satellite
Imagery

www.iblsoft.com

 **ibl** weather
software
solutions

OVERVIEW

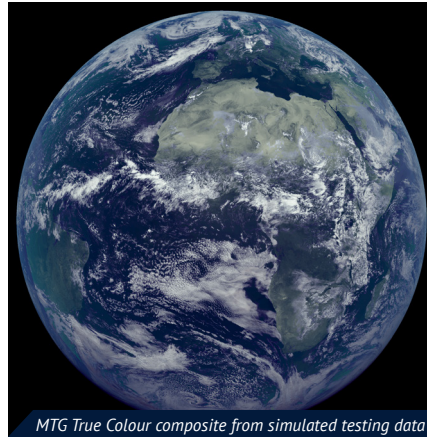


Satellite Weather is a powerful solution that lets you easily access, process and visualise satellite data with a focus on geostationary meteorological satellites from EUMETSAT, including the coming MTG imagery, as well as Himawari and GOES imagery; it gives you the most current data available. You can use Satellite Weather to monitor and analyse weather patterns with satellite technology. It helps you generate accurate insights and predictions for various meteorological applications. Moreover, Satellite Weather integrates seamlessly with Visual Weather, making it a vital tool for meteorologists who want to stay informed and make decisions based on dependable satellite data.

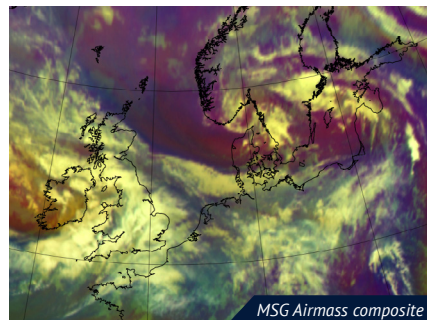


SERVER FEATURES

- ⌘ Composition of segments and producing complete image data;
- ⌘ MTG-I data processed using PyTroll service;
- ⌘ Subsetting, remapping into standard projections;
- ⌘ Calibration to reflectance or brightness temperature;
- ⌘ Output in WMO GRIB2 (for MSG, Himawari);
- ⌘ Output in CF NetCDF (for MTG-I);
- ⌘ Automatic image production (PNG, JPEG, ...) and dissemination;
- ⌘ Corrections: solar zenith angle, parallax, IR3.9 reflectance component and CO₂ correction, rayleigh-scattering correction for MTG;
- ⌘ Graphical user interface for easy configuration of desired spectral channels, output formats, areas and resolution, corrections, etc.;
- ⌘ Monitoring of incoming segments and produced output;
- ⌘ Redistribution, archiving and housekeeping of processed and other received data.



MTG True Colour composite from simulated testing data



MSG Airmass composite



SUPPORTED DATA

Data mainly from EUMETCast (using Tellicast and DVB-S2 receivers), EUMETSAT Data Store or Himawari-Cast/Cloud:

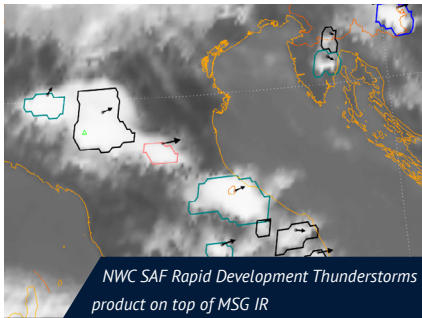
- ⌘ MTG-I (CF NetCDF segments);
- ⌘ MSG and MSG IODC (HRIT);
- ⌘ Himawari (HRIT or HSD).



WORKSTATIONS

Features of the workstation software:

- ⌘ Multiple layers in one map (e.g. SAF data on top of MSG imagery);
- ⌘ RGB composites, incl. your own formulas;
- ⌘ Sandwich products (add detail to IR using a higher-resolution visible channel);
- ⌘ Customisable colour palettes;
- ⌘ Geographic overlays;
- ⌘ Time navigation, animation loops, zoom, pan and tooltips;
- ⌘ Map legends (data time, colour scale, your logo).



INTEGRATION

Output from Satellite Weather in GRIB2 / CF NetCDF format can be provided to the Visual Weather (fully featured meteorological workstation). This enables:

- ⌘ Overlay of satellite data with:
 - ⌘ radar, lightning and other observations;
 - ⌘ tropical cyclone tracks;
 - ⌘ NWP model fields, surface analysis, etc.
- ⌘ Use satellite images as guidance for drawing forecast products (analysis charts, SIGMET, ...);
- ⌘ Provide satellite data via OGC Web Map Service (WMS) for web applications (including Online Weather), or other GIS use cases;
- ⌘ Alert on thresholds from satellite image.

The output can be provided as pre-computed tiles to allow workstations or Visual Weather to access the big data efficiently.

FTP/SFTP upload and other distribution channels allow integration with other systems as well.



MORE PRODUCTS

The workstation can display other satellite data and derived products such as:

GOES-R Series

- ⌘ ABI L1b imagery
- ⌘ Level 2 products
- ⌘ GLM data

NWC SAF / GEO

- ⌘ Cloud Top Height
- ⌘ Cloud analysis products
- ⌘ Precipitation estimate products
- ⌘ Rapid Developing Thunderstorms (RDT)
- ⌘ High-Resolution Winds (HRW)
- ⌘ More image and vector products

Land SAF (LSA)

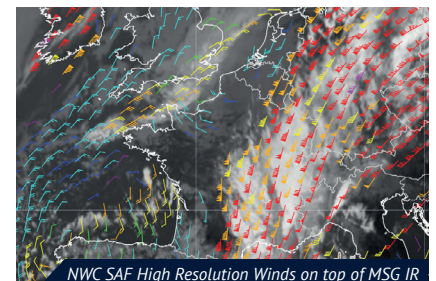
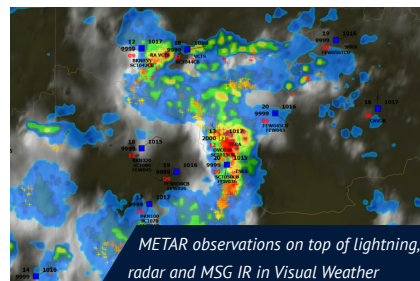
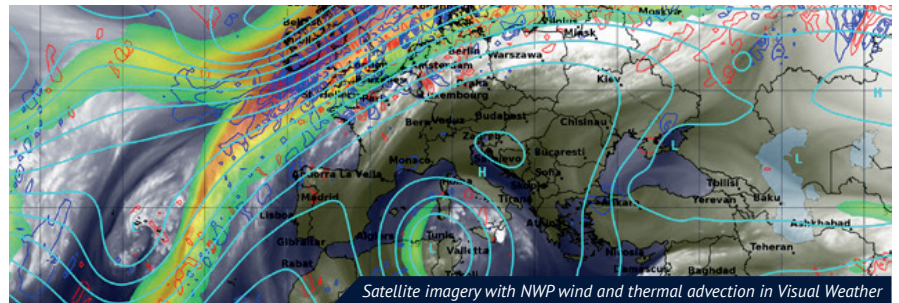
- ⌘ Land Surface Temperature
- ⌘ Surface Albedo, Surface Solar Irradiance
- ⌘ Snow Cover, Vegetation Cover, Leaf
- ⌘ Area Index, etc.

Ocean & Sea Ice SAF (OSI)

- ⌘ Sea Surface Temperature
- ⌘ Sea Ice, Sea Winds
- ⌘ Radiative Fluxes

MPEF (including RSS and IODC)

- ⌘ Global Instability Index (GII, RII)
- ⌘ Atmospheric Motion Vectors (AMV)
- ⌘ Cloud analysis products
- ⌘ Cloud Top Height, etc.





Contact us:
T: +421 (0) 2 3266 2111

sales@iblsoft.com
www.iblsoft.com

Galvaniho 17/C
821 04 Bratislava
Slovakia

IBL Software Engineering builds its reputation on 4 years of tradition in the field of Meteorological IT development. Dating from its first Automated Meteorological Message Switching Systems, the branch in Frankfurt, Germany was established in 1988, while the branch in Bratislava, Slovakia was opened in 1997. IBL Software Engineering is employing IT specialists working exclusively in the Meteorological IT Environment with a high level of professional expertise.

IBL Software Engineering is ISO 9001:2015 certified in the scope of development, supplying, installation, and maintenance of software for meteorological information systems.

IBL Software Engineering is aware of the ongoing changes declared by WMO and ICAO. As a representative of the Hydro-Meteorological Equipment Industry, it is recognized by WMO and IBL's experts are participating in the number of WMO Expert Teams, while paying close attention to the advancements in BUFR, IWXXM, GRIB3, Amendment 80, etc.

PRODUCT PORTFOLIO

If the integration of all meteorological data processing systems is the key factor for the effective operation of your business, then with the IBL product portfolio your integration efforts are minimized, because IBL systems are designed to closely cooperate to provide the desired synergy.

No
meteorological
office is an
island, entire
of itself.

