WIS

Weather Image Information System

Weather observation
Thunderstorm warning
Aviation
Road maintenance
Energy and water industry
Civil protection
Mission coordination
...

austro CONTROL

TUG **Graz University of Technology**
Erzherzog-Johann-University

The weather

The weather influences our life considerably. It affects our recreational activities, road traffic, aviation, energy industry, civil protection, etc. Only with the knowledge of the current weather situation, can we make the right decision in these fields. Indeed, radio, television and weather services provides us hourly with weather information and forecasts, but generally they apply to a large area, and they often lack important detailed information.

WIIS

The Weather Image Information System (WIIS) closes this gap and provides online the following weather information products:

→Weather radar images which show the current precipitation situation with a maximal resolution of 1 x 1 km². These Images are updated every 5 to 15 minutes. For hydrological applications cumulative rainfall depths can be automatically calculated from these data for user defined areas and for any desired time span
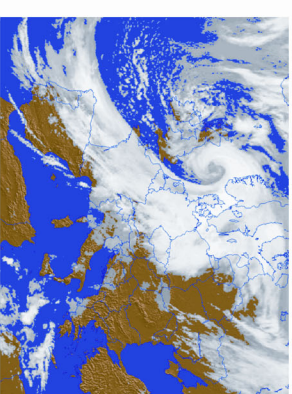
→Satellite images which show the general cloud situation.

→Lightning data: Every single lightning stroke is detected and displayed on the screen in realtime.

→Data from meteorological stations like temperature, wind speed, sunshine duration, atmospheric pressure, humidity, and other parameters. Of course also client-specific data like rain gauge or black ice indicator data can be included.
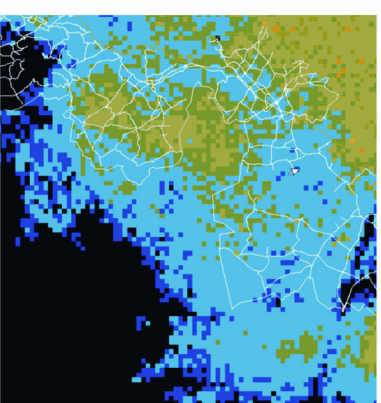
All of these parameters are provided by a server and can be transmitted and displayed on your personal computer via the internet. You can choose the displayed range, the background information and assign different colours to different data.

Weather overview

The high-resolution images from METEOSAT and weather radar images provide an excellent weather overview even before a weather front (storm, rain, snow) reaches the area of interest. Animations visualise the movement of individual weather cells and so one can evaluate when to expect the front.

Weather details

The high resolution weather radar images provide detailed information. Optionally these images can be combined with data from weather stations. Further individual background information like road or power supply line networks can be integrated. Customer-provided information can also be integrated.

Easy handling

The handling of WIIS is intentionally organised in buttons and is very straightforward. The buttons are defined by the administrator. According to requirements they switch between METEOSAT and weather radar images. Therefore also layman and non-meteorologist can use the software efficiently.
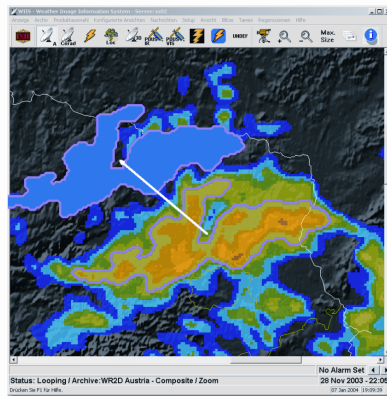
Alert

WIIS-Alert-Module:

WIIS automatically triggers alarms when critical weather situations occur. The user can individually define critical situations e. g. exceeding of a certain wind speed, the undershooting of a certain temperature, the occurrence of storm fronts or lightning strokes in certain regions, or the transgression of a certain amount of the daily rain rate.

Critical situations can be defined specifically for different regions. If required the system can also issue an alarm via SMS or e-mail.

Prediction

WIIS-Prediction-Module:

This module detects the path of storm and rain fronts and predicts their further progression. With this feature you can better predict when and were a front reaches a certain area.

Project manage-ment

We offer to manage the complete project. We advise on the weather products that meet your requirements, we help with the conclusion of contracts with the data supplier, we install the software on your computer, we advise on the setting up of the required internet connections, we instruct on site all features of the system and configure and maintain the system according to your specific requirements.

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