



The iMeteo is a web-based weather visualization tool

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iMeteo is a web-based weather visualization tool. Designed with an extensible J2EE architecture, it is capable of displaying information from heterogeneous data sources such as gridded data from numerical models (in NetCDF format) or databases of local predictions. All this information is presented in a user-friendly way, being able to choose the specific tool to display data (maps, graphs, information tables) and customize it to desired locations.

Modular Display System

Visualization of the data is achieved through a set of mini tools called widgets. A user can add them at will and arrange them around the screen easily with a drag and drop movement. They can be of various types and each can be configured separately, forming a really powerful and configurable system.

The "Map" is the most complex widget, since it can show several variables simultaneously (either gridded or point-based) through a layered display. Other useful widgets are the "Histogram", which generates a graph with the frequency characteristics of a variable and the "Timeline" which shows the time evolution of a variable at a given location in an interactive way.

Customization and security

Following the trends in web development, the user can easily customize the way data is displayed. Due to programming in client side with technologies like AJAX, the interaction with the application is similar to the desktop ones because there are rapid response times. If a user is registered then he could also save his settings in the database, allowing access from any system with Internet access with his particular setup.

There is particular emphasis on application security. The administrator can define a set of user profiles, which may have associated restrictions on access to certain data sources, geographic areas or time intervals.