



DEVELOPMENT OF AN WEB INTERFACE TO ACCESS THE METEOROLOGICAL DATABASE OF CPTEC/INPE.



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SUMMARY - The CPTEC/INPE, Centre for Weather Forecast and Climatic Analysis of the Brazilian National Institute of Space Research, has a database with global meteorological data. Here we describe a new web interface developed to provide easier access to these data. The interface allows the download of the stored data, and provides statistics and coverage maps. This project was supported by PROTIM program (Program of Information Technology applied to Meteorology).

INTRODUCTION - The meteorological data are collected in all parts of the world through several types of instruments and platforms, like ships, airplanes, buoys, radiosondes, meteorological stations, etc. These data are used by the forecasters and to feeding the numerical models, therefore they define the initial state of the atmosphere. The Meteorological Data Base (BDM) of the CPTEC/INPE has global data received from the *Global Telecommunication System* (GTS). It has data from messages like Synop, Metar, Ship, Buoy, Temp, among others kinds of data. There are data available from 1996 to 2007, a set of useful information for studies and scientific research. In order to facilitate the access to these data, a web interface was developed to provide easy and fast on-line access. For the download of some data subsets will be needed a previous authorization from the institutions that owns some of the stations;

DEVELOPMENT TECHNOLOGY - the developed interface is based on the Client/Server architecture with Java technology for the pages and navigation mechanisms. The database is MySQL. For the data coverage maps was used the *Grid Analysis and Display System* (GrADS) from COLA.



Figure 1 – Observations counting by type.

AVAILABLE INFORMATIONS - The website has statistics about the data stored in the database (Figure 1) and data coverage maps. It also provide an interface for data download. There are statistics for different periods, types of data and regions. In the figure 2 we have the graph with the observations amount per day and the monthly average number of data. In the Figure 3 we have the daily counting of observations.

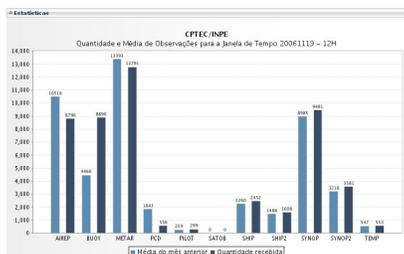


Figure 2 – Data amount and monthly average data counting.

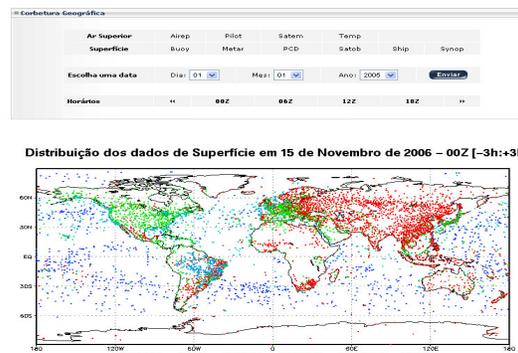


Figure 4 – data coverage map.

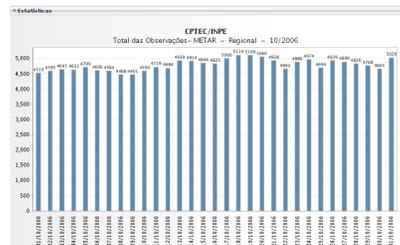


Figure 3 – Daily counting during a month

For the data coverage map (Figure 4), the user will be able to visualize maps with the observations locations. For data download (Figure 5), the user need to be registered in the system for statistical purpose.



Figure 5 – Interface for data download.

FINAL REMARKS – This web application allows the Internet users to retrieve data of Meteorological Data base of the CPTEC/INPE. For this work it was used the Java technology for the development of JSP/Servlet pages. We intends to provide to the users an interface for download of the observed data in a fast and easy way. However, due questions related to the meteorological property and use of data, in some cases the distribution needs an authorization from propriety institution.