ACTA EMF Observatory is an innovative Web Application which collects EMF measurement results from compatible Narda EMF Stations, stores and presents these results through an intuitive web interface. From the geographical representation of stations, to the statistical graphs of measurement results, EMF Observatory is the proper tool for handling EMF measurements with ease.

EMF Observatory Structure & Operation

ACTA EMF Observatory Temporary Storage, automatically receives from each remote station its identity along with measurement results, station status indicators like temperature or battery health, alarms and station configuration. From there, the collected binary information is decoded through a Probe depended mechanism and is forwarded in a structured form to the Main Database for permanent storage. The Main Database in turn provides this information to the Application Server which can then be accessed by the operators of the Administration Interface and the users of the EMF Observatory Portal.
ACTA | EMF Observatory

Through the EMF Observatory Portal, users can view the stations’ location on Google Maps, select a specific station and see most recent measurements results or results further in the past. Results are available for both electric and magnetic fields as well as a 24h statistical distribution for each field. Locating the desired station, reading the results and accessing older measurements has never been simpler.

The Administration Interface is the management tool for the operator of the network. It allows easy addition, removal and relocation of stations, it is capable of sending configuration settings and it can also directly issue SMS commands to the stations for various real-time operations. The Administration Interface also provides information on station alarms as well as station health status like battery health, temperature etc.

All interfaces of the EMF Observatory are multilingual capable for delivering its service to the wider possible audience. Context like logos and text can be customized to match the profile of the operator of EMF Observatory and in addition to the default measurement graphs, additional graphs or representations can be developed on-demand to cover operator’s needs.

Station Representation & Selection

ACTA EMF Observatory Portal provides two different ways for locating a station and accessing its information. The first is through a simple and effective Google Maps functionality which shows the exact location of the station. With a single click, the user can access basic station information to verify if the selected station is the desired one. The second way is through the Stations menu visible in all pages of the EMF Observatory, through which the user can browse through geographical sectors until the desired station is reached. For both ways, the station’s page were all results and graphs can be viewed is one click away.

The location of the stations in both map and menu is easily manipulated through the Administration Interface.
Complete EMF Station Data

Each station added to EMF Observatory has a dedicated page which holds all the information regarding the station like its type, address, elevation and a picture of the station for easy identification. Further down the page, the most recent measurement results are available in form of actual values, average and maximum values as well as their comparison to the established thresholds. A separate set of results is presented for each supported EMF band.

Detailed and Simple Results Graphs

The EMF Observatory provides two sets of graphs in its default form. The first is Field Strength over Time which shows the variations of electric and magnetic field strength over a selected period of time. The second is the 24h Distribution graphs which presents a graph based on statistical data for the variations of electric and magnetic field strengths over 24 hours for a selected period.

Field Strength over Time (E and H)

Field Strength over Time graphs consist of the electric field graph which shows the levels of electric field strength in V/m over a time period which can be selected by the user of the Portal by a period selection module at the bottom of the graph. At the top of the graph there is a red line showing the maximum threshold for the electric field strength which remains always visible regardless of the actual values of the graph. Similarly, the magnetic field graph shows magnetic field strength values in μT over a selected period of time.
Results Graphs

24h Distribution (E and H)

The 24h Distribution graphs regard a statistical measurements distribution of field levels collected by the EMF Observatory.

The results are shown in a 24 hours window and include field strength levels of several days depending on the period of time selected by the user.

At the bottom of the graph, a legend shows the frequency range color codes of the levels shown in the graph.

Easy Access to Result History for all Graphs

In all EMF Observatory graphs, the module presented below allows the user to select the desired time period from which results should be displayed on the graph.

Always Visible Maximum Limit

For enhancing the graphs’ detail, keeping visible the distance of each value to the established maximum threshold, each graph will keep the threshold level always visible so the strength of each field can be visually evaluated more easily.

For more information on ACTA | EMF Observatory operation as well as customization and ordering capabilities, feel free to contact us.