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The Realization of the system of software for the calculus and for the monitoring of the electromagnetic pollution of high and low frequency , with open-source software: GRASS, VTK, PARAVIEW for linux.

The present job illustrates the realization of a system, for the monitoring of the electromagnetic pollution of high and low frequency.

The purpose of the plan is to develop a method of territorial map, the levels of electromagnetic field (radio frequency and ELF), based on the knowledge of the distribution of sources on the territory and for the attainment of following purpose:
? The Systematic knowledge of the values of electromagnetic field presents over a territory, showing eventual critical situations;
? The Possibility of a preventive evaluation of the receptivity of environment at a site regarding the installation of new systems.

The method is based on the use of three instruments:
? The Database of georeferenced sources (systems of radio frequency and cellular telephony, electrodes);
? the Models of evaluation of the magnetic fields generate from sources;
? the Measures.

For the implementation of the described system they have been used Open-Source softwares for linux.

For the import and elaboration of the maps it has been applied to the use of Grass6.1-cvs on Debian distribution. With the use of Debian, they have been exceeds all the relative problems to you you to the dependencies between the packages that they constitute Grass.
For the calculus of the electromagnetic Fields and the Volume of respect, generates from the antenna (norm CEI), has been used the language of scripting TCL/TK,

integrated in the VTK libraries .

The representation of the electromagnetic Field and the Volume of respect (norm CEI 2), happens through geometric figures in 3D.
The obtained figures therefore come elaborated and exported in format vrml, for their visualization in Paraview.
All three systems have been integrated, by scripts TCL/TK, in pages PHP, and they have been visualized by appropriate windows of visualization.

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