RIADE, ACS, GRASS strikes again:-) research, business and free software
NVIZ site management: variable attribute (size/color), LUTs, picking and multimedia

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ABSTRACT

This is a second article related to the project RIADE that we (the ACS GRASS Free Software Development Team) presented on the previous edition of the GRASS meeting, hence the title :-) After our previous development regarding the Flythrough and Time Series management, we have turned our attention to further enhancements of NVIZ, the GRASS 3D visualization tool, in the belief that 3D visualization of multiple variable at the same time can be a key factor for unveiling hidden behavior and exploiting new results in research.

Here we present the development of new features that we have added after our previous work. These are mainly related to the enhancements of the NVIZ site management that allows:

1) to visualize each point in a different attribute (color, size, marker) depending on associated data, in order to visually get immediate spatial patterns for one or more variables at the same time;
2) to manage color and size Look Up Tables (LUTs) to be used by one or more sites, in order to exploit time series of different variables with the same size or color schemes to understand effective variations;
3) to access the information stored in the associated database directly by picking the objects of interest;
4) to access external multimedia data related to the objects of interest as a hyperlink;
5) to customize highlighting of the selected 3D site points.

RIADE (Ricerca Integrata per l'Applicazione di tecnologie e processi innovativi per la lotta alla DEsertificazione) (Integrated Research for the Application of innovative processes and technologies for fighting Desertification) is a project co-financed by MIUR (Minister for Education, University and Research) for developing an integrated and technologically innovative information system for monitoring desertification processes in South Italy, with the aim to promote interventions for the safeguard of the territory.

ACS is the technological partner of the RIADE consortium, that includes also ENEA (Agency for New technology, Energy and Environment) and Desertification Research Group (NRD) of the University of Sassari (UNISS).

This work shows once again how the free software can represent a convenient (business) opportunity for a private Italian firm that mainly develops software on commission.