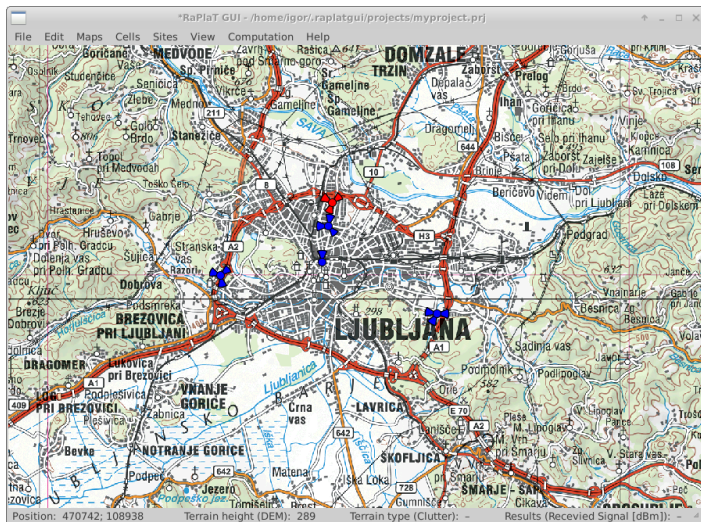


RaPlaT GUI – Telekom

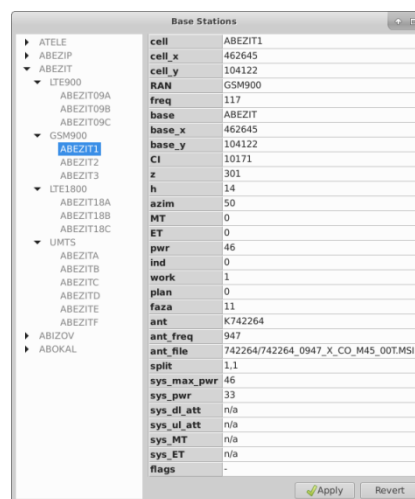
Project: Graphical user interface for GRASS RaPlaT for Telekom

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RaPlaT GUI – Telekom is a GUI (graphical) front end for the CLI (command line) package GRASS-RaPlaT (Radio Planning Tool), developed for the largest Slovenian mobile network operator Telekom. While the original GRASS-RaPlaT is an open source solution, developed by E6 (IJS), consisting of a number of modules for the open source GRASS GIS (Geographic Information System), this GUI application has been made for a special branch of GRASS-RaPlaT that is being developed, maintained and used in-house by Telekom.



RaPlaT GUI is a Linux based application, written in Python, for designing radio networks, and for computing radio propagation and coverage of a radio network using GRASS-RaPlaT. RaPlaT GUI can import radio network configuration data from a file in the CSV format. The configuration can be modified, e.g. base stations added, deleted or moved and their configurations and parameters changed. Base stations are drawn and can be manipulated on an underlying topographic map in the main application window, while their detailed configurations and parameters are shown and can be modified in the base station editor window.



The radio signal propagation model 9999 is usually used for the current mobile radio networks, but GRASS RaPlaT supports also some other radio propagation models and, being an open source application, newly developed models can be added easily. Although GRASS RaPlaT can compute various results, the main result is the received radio signal strength in dBm in each point of the map, which can be used as an estimate for the communication link quality. The computed results are shown as a partly transparent color-coded map overlaid over a grayscale topographic map, and can also be stored in a database for further analysis.

