

MSU_MT1D Software

MSU_MT1D software is intended for one-dimensional profile MT data interpretation. It possesses multifunctional graphic user interface and has options for manual or automatic MT curve selection, apparent resistivity and phase impedance cross-section analysis, analysis of geoelectric cross-sections along the profile, and so on.

During a field survey, the key issue is data interpretation. MSU_MT1D software has a wide range of capabilities for carrying out profile MT data interpretation. Its main advantage is a well designed graphic user interface, which gives the interpreter versatility when analyzing data and obtained models, thus utilizing to the fullest extent weakly formalized a priori information and personal experience.

Convenience and high productivity of work with MSU_MT1D software is due to the use of a one-dimensional model, which does not allow the construction of a final cross-section if strong horizontal changes in resistivity are present. Nevertheless, this software is irreplaceable for interpretation of practically any MT data. The only difference is that for the layered sections, the result of its work is the eventual result of interpretation, and for the horizontal-inhomogeneous sections, it is the initial approximation for two-dimensional interpretation.

Program MSU_MT1D allows the user to:

1. Select amplitude and phase MT curves manually (by editing the model with a mouse) and automatically (by applying inversion), as well as edit field data and save the results of straight problems solutions.
2. Visualize field data and results of interpretation in the form of a cross-section of apparent resistivity and phase of impedance, as well as a geoelectric cross-section along the profile.