This work deals with numerical modeling of electromagnetic induction in 3D environment with heterogeneous conductivity. We develop a program to solve Maxwell's equations in quasistatic approximation by using Continuous and Discontinuous Finite Elements. Their implementation in the numerical library deal.ii is discussed. The obtained numerical results are compared with each other and also with a quasianalytic solution for an environment with 1D heterogeneous conductivity. We discuss different numerical methods, limits of our code for practical use and possible future enhancements.