The goal of this work is to propose an algorithm selecting an optimal portfolio from input projects, which are assessed by costs, profits and potential risk. Any interdependencies can be defined among these input projects. Summary of alternative approaches concerning this topic is part of this work too.
Program implementing proposed algorithm is attached to this work. Output of program computation is a portfolio achieving the highest possible profit as well as satisfying all of input constraints and defined interdependencies among the projects. The program allows graph comparison of resulted portfolios and provides detail information about each portfolio.