

## 2nd Decision Deck Workshop

### Implementation of VIP Analysis for Decision Deck 1.0

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VIP Analysis is a software package for aggregation of multicriteria performances by means of an additive value function under imprecise information. It allows conducting a multicriteria analysis when the decision makers are not able to (or do not wish to) fix precise values for the importance parameters. These parameters can be seen as interdependent variables that may take several values subject to constraints. VIP Analysis incorporates different methods to compare the alternatives to a decision problem. It proposes a methodology of analysis based on the progressive reduction of the number of alternatives, introducing a concept of tolerance that lets decision makers use some of the methods in a more flexible manner. The original VIP Analysis was coded in the late 1990s using Borland Delphi (Pascal language). It has been offered as a freeware executable file to anyone who would request it from its authors. The list of requests is now over 150 users long, mostly academics but also from industry and government institutions, from dozens of different countries.

This presentation overviews the implementation of VIP Analysis as a plug-in for the first version of Decision Deck, mostly programmed from February to July 2007, in the context of an internship of the first author at INESC Coimbra. It required integration in the Decision Deck version available at the time of the 1st Decision Deck workshop, including the use of the GLPK library. The VIP Analysis methodology is briefly presented, followed by a demonstration of the VIP Analysis plug-in. Finally, we discuss some barriers to new implementers that we have met. Finally, we offer some suggestions for improving Decision Deck, namely regarding the use of Decision Deck as a basis for Group Decision Support Systems.