



7 Conclusion

In this book, we have considered multiobjective mixed-integer convex optimization problems. We introduced basic definitions and concepts of multiobjective optimization. We derived a basic Branch-and-Bound algorithm for solving (MOMICP) by using approaches from global multiobjective (continuous) optimization [16]. We have described the main steps of this algorithm and proven exactness. We have enhanced this basic algorithm by introducing modifications that can save computational time or return a more precise cover of the efficient set E of (MOMICP). The final algorithm was implemented in MATLAB. We have tested the algorithm on several instances which have been designed by us. We have discussed the impact of the modifications on computational time and precision of the cover of E . Finally, we have outlined further steps that could be done in order to save more computational time, obtain a more precise cover of E and generalize our theoretical results and the final algorithm in order to handle optimization problems (MOMICP) with not necessary convex objective functions f .