Scheduling allocates scarce resources to activities such that certain constraints are satisfied and specific objectives are optimized. The activities to be executed are commonly known or determined a priori in the planning stage. To improve the flexibility of scheduling systems, the concept of optional activities was invented. Optional activities are those activities whose presence in the resulting schedule is to be decided. Rather than determining which activities need to be executed and scheduling them in two consecutive phases, flexibility and efficiency can be improved significantly when both activity selection and time allocation are integrated within the same solver. Such an approach was implemented in a few Constraint Programming solvers and manifested great performance on multiple scheduling problems. In this thesis, we apply the concept of optional activities to scheduling problems that do not seem to involve optional activities, such as the production scheduling problem with sequence-dependent non-overlapping setups, but also on problems beyond the scheduling domain, such as the multi-agent path finding problem and its extension with weighted and capacitated arcs.