Parking spot allocation

**Agent types:** cars, parking lots

**Decision variables:** cost, distance to parking lot, spot type

This proposal concerns the allocation of parking lots to several car agents. The car agents have certain requirements regarding the kind of spot they prefer and negotiate with the various parking lots to assess the best spot for them.

Spot selection uses 3 decision variables: cost, distance to parking lot and spot type. The cost is the hourly cost of parking in a specific parking lot / spot type combo. Spot type might mean a spot closer to the relevant exits (shopping, office building, parking lot exit), a regular spot or a handicap spot. The distance is measured between the parking lot and the current position of the car agent. Each car agent communicates with the various parking lot agents and using their set of needs negotiate a parking spot. They might need to relax their needs in case of spot shortage, in which case they’ll have a set of personalities that guide how they relax the requirements.