



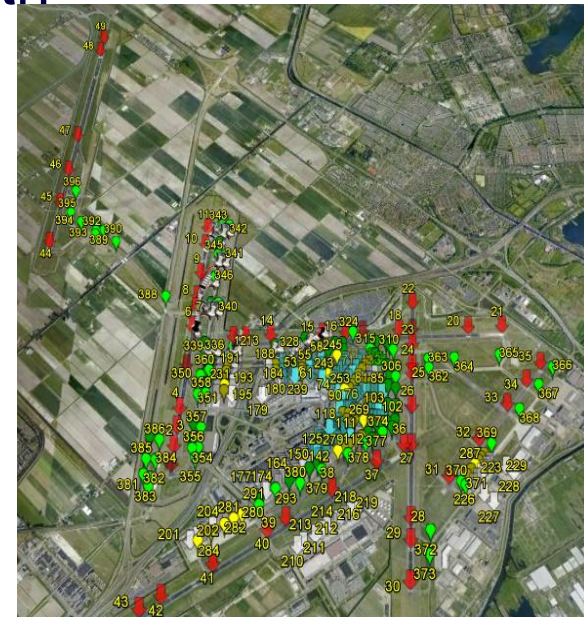
Airport ground movement planning



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Airport ground movement model

- Airport is a **graph**
- Time is calculated at **important nodes** and then interpolated
- **MILP** problem
- **Path catalog** based (discrete decisions on path variants)
- AP movement **velocity profile** along the path
- RWY movement is thought to be invariant (**RWY profile**)
- Input: flights schedule
- Additional modules:
 - Visualizer
 - AP model builder
 - AP model (nodes, paths, properties)
 - Gate/stand and RWY entry/exit point allocator



Airport ground movement model

- Features:
 - RWY movement
 - Pushbacks
- Additional points (2 types) for precise distancing and visualization
- AC basic ground movement characteristics
- Important points:
 - Performance
 - Reliability
 - Kinematics
 - AP movement rules
 - Bad cases (no solution)