

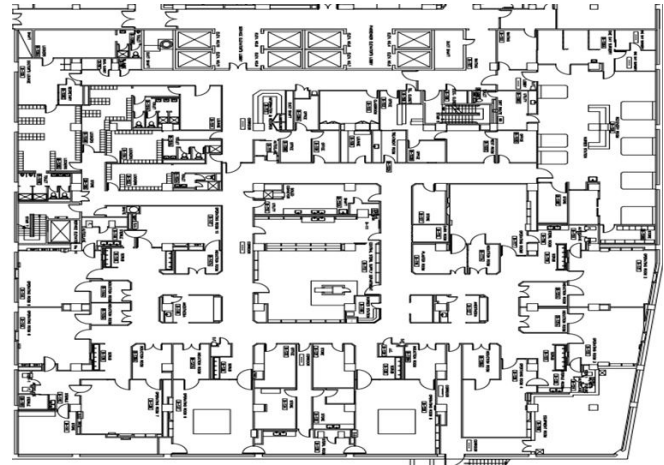
OR Optimization with SimTrack®

OR Layout

The layout will be used to determine impact of travel distances, congestion, and room location on the overall flow efficiency.

Room Schedule, Specialty, and Capacity

Define room specialty assignments along with potential operation grouping that it can perform. A set of general guidelines needs to be defined in order to improve future optimization.



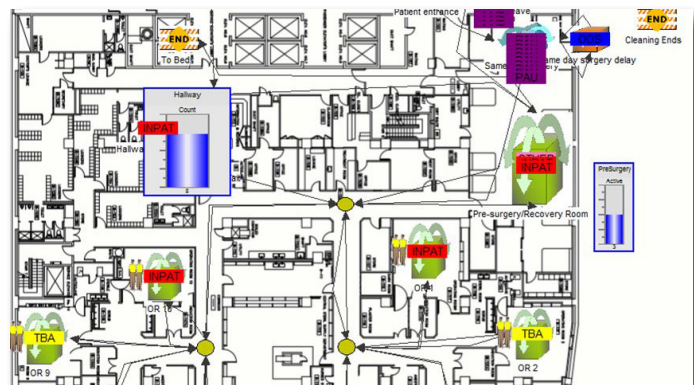
ID	PatientType	StartTime	Room	Duration	Recovery	ORType	StartTimePresched
1	TBA	10/1/2011 7:00	1	295		92 ORTHO	10/1/2011 8:10:00 AM
2	TBA	10/1/2011 7:00	2	55		84 ORTHO	10/1/2011 8:15:00 AM
3	INPAT	10/1/2011 7:00	2	85		84 ORTHO	10/1/2011 9:20:00 AM
4	INPAT	10/1/2011 7:00	2	85		84 ORTHO	10/1/2011 12:00:00 PM
5	INPAT	10/1/2011 7:00	3	205		115 GYN	10/1/2011 8:20:00 AM
6	INPAT	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM
7	INPAT	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM
8	INPAT	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM
9	INPAT	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM
10	TBA	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM
11	TBA	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM
12	INPAT	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM
13	INPAT	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM
14	INPAT	10/1/2011 7:00	4	155		155 GENERAL	10/1/2011 10:45:00 AM

Current Schedules

Load currently used schedules from EMR (or other systems). The data will be used to validate and improve the OR.

Simulation Model

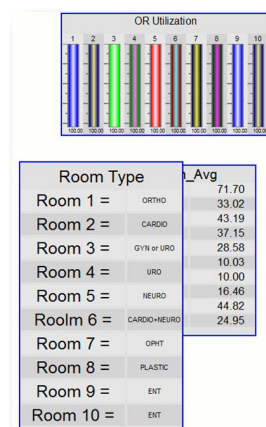
- Build a validated model based on collected data.
- OR Layout
- Room Specialty Schedule
- Provider Schedule
- Patient Arrival Time
- Surgery Duration



The model shows high utilization of the OR rooms, giving the impression that the OR department is reaching capacity.

By examining the overall OR efficiency of every room, the initial results indicate that the rooms operate at a very low efficiency and contribute extensively to Non-Value-Added time.

Additional capacity can be achieved by improving efficiency.



New Schedule and Analysis

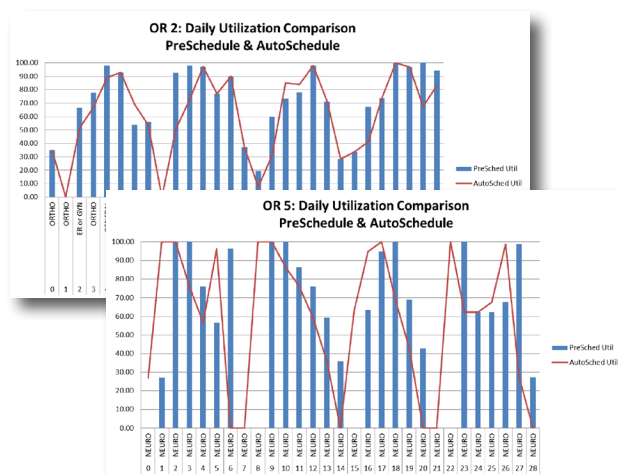
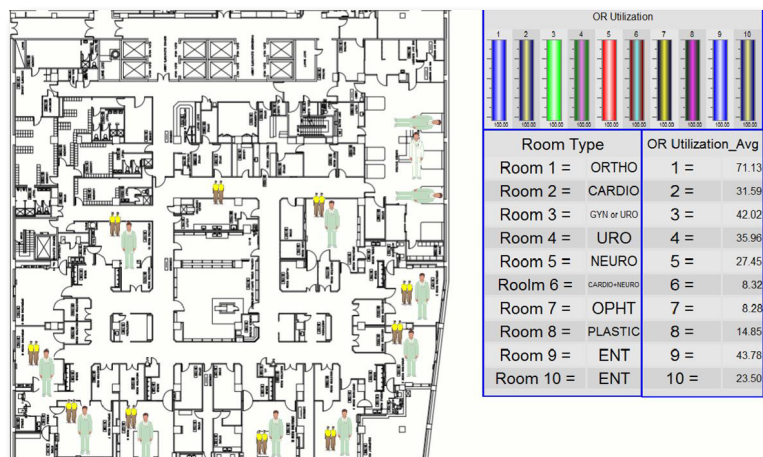
By properly scheduling the OR and providers, a higher level of efficiency can be achieved.

Model Data

(Historical Data, Schedules, shifts, providers info, and room specialties)

Current State Data

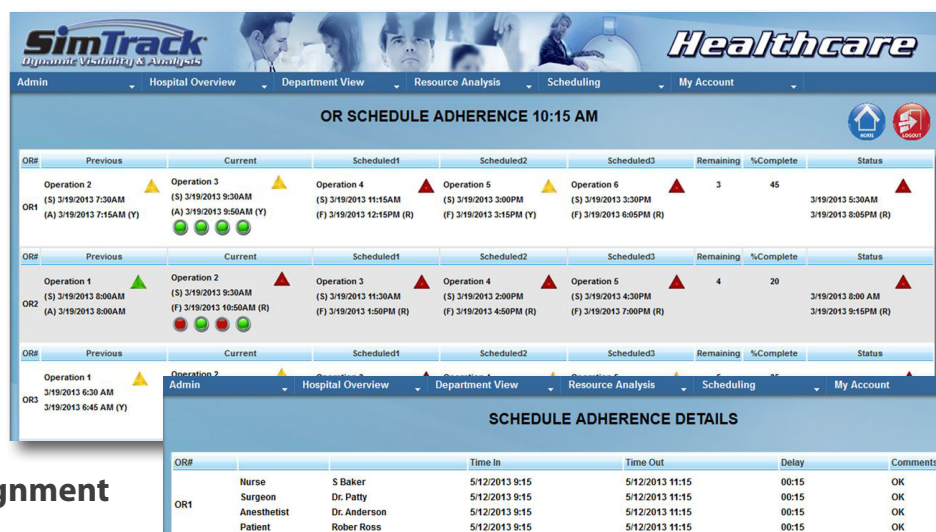
- Schedule Changes
- Provider Availability
- OR Delays
- ED and Unscheduled Operations



- Room and patient schedules are run through the simulation to determine the optimum patient sequence to maximize room and resource utilization and efficiency.
- Live data is incorporated into the model allowing the simulation to proactively adjust the generated schedule and maximize efficiency.
- The simulation model continually updates the current and forecasted state of the OR based on live data it receives.

Automating Process

Web-based Schedule Adherence dashboards are provided to quickly summarize the state of each room; whether or not it is on schedule and the schedule impact to future operations.



Provider Allocation and Assignment OR Room Re-Assignment

- When to call patients to Pre-Op
- Reschedule Outpatient arrivals
- Notify Surgeons of new times
- Schedule OR Cleaning for faster turnaround

Detail per procedure

Detailed performance view per provider identifying the impact of delays.