

Rapid Modeling Corporation (RMC) was formed in 1994 as a simulation, modeling, and optimization consultancy serving clients in many industries. RMC is considered to be a general purpose engineering and optimization provider and as such, has extensive project experience in many diverse industries (e.g. – manufacturing, warehousing, steel, consumer electronics, machine tool, chemical and fluid processing, and healthcare). RMC’s engineering and optimization methodologies are used extensively by LEAN and Six Sigma teams to solve complex problems – especially when the problems complexity exceed the capacity of the team logically and computationally.

RMC’s healthcare practice began in 1997 with a project to optimize the design of a new Operating Department. The hospital system had purchased a competing hospital in town and was combining the OR’s of the two hospital’s into one. Since then, RMC has participated in many healthcare projects to mathematically model and describe healthcare systems and then apply experimental design to solve for the key variables. Specific milestones in RMC’s healthcare practice include the following:

- 1993 – RMC’s founder worked at ProModel Corporation in Orem Utah to assist in the launch of the first healthcare simulator “MedModel”.
- 1994 – RMC founded as an independent corporation to provide simulation, modeling, and optimization services.
- 1997 – RMC performs first major modeling initiative combining OD of two hospital’s.
- 2001 – RMC completes it 10th major healthcare simulation project.
- 2002 – RMC developed a handheld (PDA) time study system for Nurses to measure “How Nurses Spend their Time”. The system is called “Time Study RN” (TSRN).
- 2003 – RMC expands the measurement to include “Where Nurses Spend their Time”.
 - RWJ and IHI select “Time Study RN” for their “Transforming Care at the Bedside” (TCAB) initiative and roll the system out to 3 hospitals.
- 2004 – RWJ sponsors 13 hospitals in TCAB utilizing TSRN as a core tool.
- 2006 – RMC expands TSRN to measure the impact of the workspace on Nurse workload.
 - 56 additional Hospitals purchase TSRN and begin a TCAB initiative.
 - RMC provides TSRN and integrates RTLS systems with the software.
 - RMC launches the “Time Study RN National Benchmarking Database” (NBD), which is used by participating hospitals to benchmark performance, to learn more about how Nursing policy impacts the Nurse workload, and to identify best practices.
 - RMC releases “Layout-iQ” at the Healthcare Design Conference. Layout-iQ is used to measure the impact of hospital design and hospital unit design on the Nurses workload. It allows designers and researchers to compare different designs using productivity metrics, and it calculates the “efficiency” of each design.
- 2007 – RWJ and AONE sponsor 136 hospital units using TSRN and all participate in the NBD.
 - 20 additional hospitals purchase TSRN for continuous improvement.
 - IHI publishes case study at St. Joseph’s hospital in Kentucky.
 - Layout-iQ sold successfully to architectural firms and hospital systems for new hospital design projects. Major projects include OSU Children’s hospital and Providence Health in Oregon.
- 2008 – RMC teams with researcher at UCLA school of nursing on article.
 - RMC releases an educational version of Layout-iQ for facility design. Purdue and RIT begin using Layout-iQ in their curriculum for facility design.
 - RMC ships it’s 600th license of TSRN.
 - The NBD reaches a milestone of 300 hospital units participating with over 50,000 nurse shifts of data.