

# Simulation software for rapid, accurate simulation modeling

Celebrating 20 years of Successful Simulation



Powerful. **Flexible.** **Fast.**

# A UNIQUELY POWERFUL APPROACH TO PROCESS IMPROVEMENT AND DECISION MAKING

At SIMUL8 Corporation we pride ourselves on producing world renowned **dynamic, innovative** simulation software that **improves** processes, **reduces** costs and **transforms** the way people make and communicate decisions. For over 20 years SIMUL8 has been working with our users to create simulation software for rapid model development that gets results fast. That's why we're trusted by over 70% of Fortune 50 companies.

# Simulation Success Stories

Simulation can be used in any industry to improve processes, reduce costs and increase efficiency.

Don't just take our word for it, read about the organizations already seeing the benefits of simulation.

## Justice

### ALABAMA

Alabama saved **\$250 million** using simulation to provide greater predictability in knowing the short and long term impact of policy and budgetary decisions.

## Manufacturing

### BOSTON SCIENTIFIC

Boston Scientific **saved \$150k** in inventory costs on their production line by moving from static spreadsheet analysis to simulation.

## Public Sector

### NEW ZEALAND IRS

New Zealand IRS used simulation to plan shared services at a national level. Simulation helped them get back to full operation **just 3 days** after an earthquake.

## Healthcare

### THE MEXICAN FOUNDATION FOR HEALTH

The Mexican Foundation for Health used simulation to **predict the future** economic burden of obesity in children and determine the shape their health services will need to be to cope.

## Manufacturing

### NASA

NASA used simulation to model the manufacture of a test flight article for the future Area 1 launch vehicle to help NASA **return to the moon**.

## Public Sector

### NATO

NATO used simulation to analyze the communication between command and control for **effective decision making** on the battlefield.

## Manufacturing

### WYETH/PFIZER

Wyeth Pharmaceutical used simulation on 2 projects, each of which took less than a month from start to finish, and resulted in avoiding capital expansion costs of between **\$1million to \$2million**.

## Healthcare

### UK NHS

Simulation helped the UK NHS understand how they could **save \$166 million** by moving treatment of dermatology from hospital outpatient departments into the community.

# More Reasons to Choose SIMUL8...

## Quick to learn

Creating a simulation is just like drawing a flowchart, thanks to the intuitive drag and drop interface. Then you add timing information, when work arrives (products, patients, paper work etc.) and the time tasks take to complete. Add in some **rules** about where work goes and you've created your simulation.

## Process visualization

Bring your process to life. With SIMUL8 you can run the simulation at full speed to quickly get results, or run it slowly and watch every piece of **work flow through your system**. This enables visualization of your process. You can see key bottlenecks, over-utilized resources and under resourced elements of a system.

## Advanced Analytics

SIMUL8 automatically collects performance measures as the simulation runs so that you can not only visualize what will happen, you also get **accurate numerical results** about every part of your process.

## Power and Flexibility

Create any size of simulation with limitless scale and complexity. Get complete control with reusable libraries, read and write from databases, and drive SIMUL8 from other interfaces like Microsoft Excel, VB, and C++.

# Is simulation **right** for you?

If you'd like to **make better decisions**, test ideas, get answers quickly and visualize your processes then keep reading.

## Test ideas in a risk free environment

Experimenting in real life can be costly. The great thing about simulation is that you can try adding more staff or purchasing new equipment without the capital expenditure, and if you don't get the results you need, quickly experiment with another scenario - risk free.

## Helps you think and communicate

Simulation provides a vehicle for discussion about all aspects of a process. The rule and data collection forces you to consider why elements work in a certain way and if they could work better. It also brings to the surface inconsistencies and inefficiencies especially between different parts of a process that work independently.

## Rapid, accurate results

A simulation automatically collects performance measures as it runs so that you get accurate numerical results from your simulation. Plus with optimization, scenario management and sensitivity analysis, simulation allows you to carry out robust analysis on your data to make more informed decisions.

## Visualization and animation

Simulation is visual and animated. It lets you clearly describe your proposal to others. It's more convincing than just displaying the end results as people can't see where these came from. Simulation is so effective at communicating ideas that many companies now use it as a sales tool to sell their products.

## Get answers now

With SIMUL8 you can try lots of ideas in just a few minutes, because simulation runs much faster than real life. With simulation you can run 2, 10 or even 100 years into the future in seconds. Get the answer now; don't leave it until it's too late to react.

## Better decision making

By using simulation all your decisions will be evidence based. You can compare multiple scenarios to consider all possible angles. As a result you will know your process inside out, and be confident in making bold decisions.

# HOW CAN SIMULATION WORK FOR YOU?

There are lots of variations of simulation, here we are talking about process, or to be official; discrete event simulation.

In process simulation you take a flow of events that happen over time in the real world and put them into your computer simulation. For example, the day-to-day operation of a bank, the running of an assembly line in a factory, or the staff assignment of a hospital or call center.

The simulation is time based, and takes into account all the resources and constraints involved, as well as the way these things interact with each other as time passes.

Most importantly, process simulation also builds in the randomness you would see in real life. This means that the simulation really can match reality, so when you make changes to the simulation it will demonstrate exactly how the system would behave in real life.

# Still unsure?

If you answer yes to one or more of these questions, you will most likely benefit from simulation.

## ✓ YOU FACE COMPLEX DECISIONS

Are you faced with more decision factors than you can get your arms around? Do you need to make changes to your process but can't risk it going wrong? As humans there are only so many variables we can hold in our heads at one time. A computer can easily and **accurately process** all the complicated interactions that happen in your process.

## ✓ YOU'RE HAVING PROBLEMS WITH PROCESSES

One or more of your processes is broken or needs to work a lot better. Many small, day-to-day decisions are not being made well, and it's having an impact on your bottom line. Simulation can help you **test different ideas** to find the most **efficient solution to your problem**.

## ✓ YOU CAN'T WAIT TO SEE THE IMPACT

If your decisions will have implications in months or years to come then it's impossible to put a change in place and see what the outcome will be. With simulation you can **fast forward to see the impact** of your choices.

## ✓ YOUR PROCESS DOESN'T EXIST YET

You need to create a new business process, but how can you know it will work? Will it be able to cope with demand? Simulation can help you design your process and **validate your assumptions before** waiting for the real system to be ready.

## ✓ YOUR BUSINESS PROCESS HAS VARIABILITY OR UNCERTAINTY.

If events in your process don't always take the exact same time, or you can't predict exactly when new work will arrive then you have variability. If you use other techniques like spreadsheet modeling you'll have to rely on averages. Averages can never truly reflect the real world and when just a little real world variability is added the results can be wildly different. **Simulation can be made to match your process exactly.**

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