



DYNAMIC SIMULATION[®]
FOR A DYNAMIC WORLD

WWW.CREATEASOFT.COM



Our Mission

Provide organizations with the required tools and know-how to ensure competitive advantage and sustainability in an ever-demanding world market.

About CreateASoft, Inc.

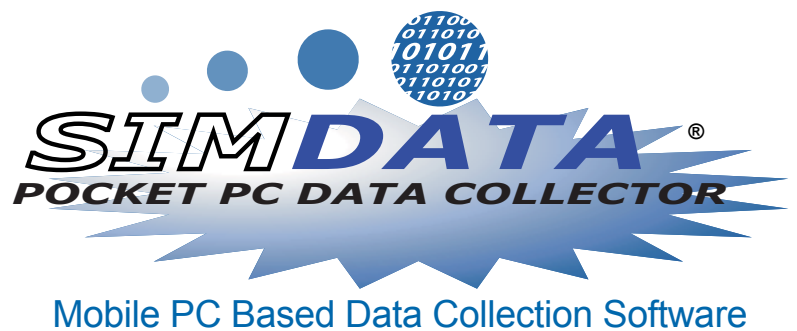
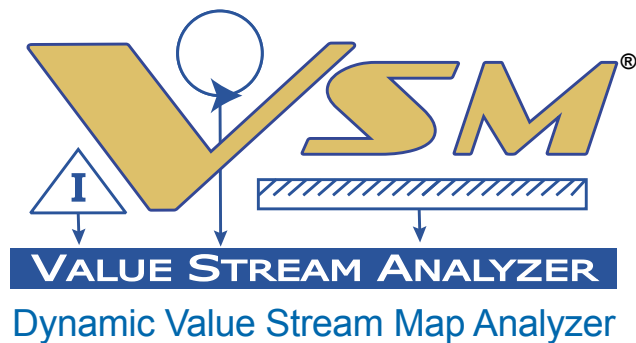
CreateASoft, Inc. provides dynamic process improvement solutions, leading edge predictive technology, and end-to-end support to a variety of process based operations dedicated to improving operational **efficiency** and **responsiveness**.

Empowering over **3000 worldwide clients** to achieve sustainable competitive advantage; **CreateASoft, Inc.** celebrates more than 20 years of delivering leading edge, scalable business intelligence developed and supported in the United States.

Our patented solution delivers an integrated toolset driving the improvement process from data collection to current state mapping, all the way to an interactive 2D or 3D future state model. All, while providing the necessary analysis and reporting tools needed to support **continuous operational improvement**.



Our Products



Some of Our Customers



Registered trademarks are the property of their registered owners.

Data Import Wizard
Real-time Connectivity



Graphical Model Flow
and Constraints



On-The-Fly User
Interaction

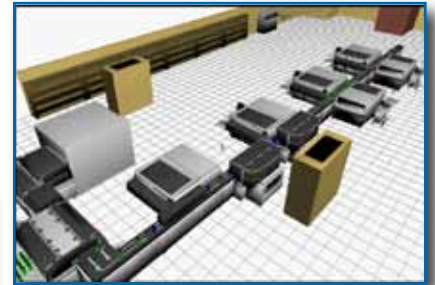


SimCAD[®] *Process Simulator.com*

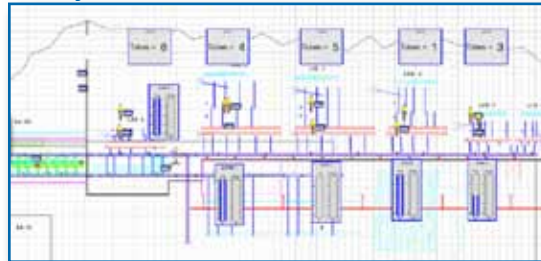
Scheduling/Gantt Chart



3D Visualization



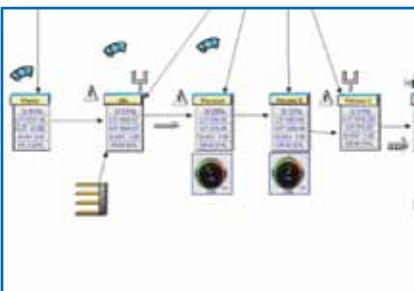
Dynamic Process Simulation



Multiple Scenario Analysis



Value Stream Analysis



SIMCAD PRO

Next Generation Dynamic Simulator



Why Dynamic Simulation®?

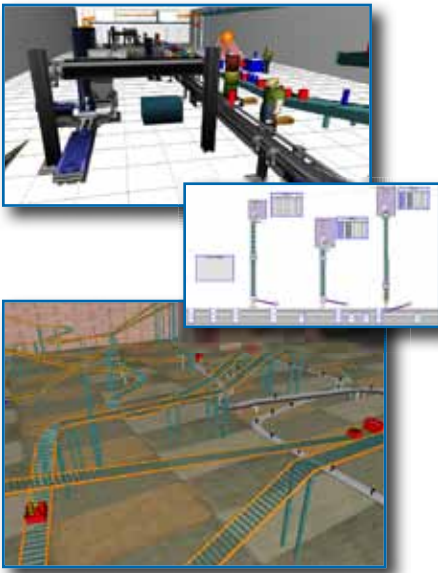
Simcad Pro: Next Generation Dynamic Simulator operates under an entirely different paradigm than traditional static tools. The graphical interface used to build models does not generate or compile code since it interfaces directly with the multi-core simulation engine. When the simulation starts, the animation instantly displays, both in 2D and 3D, the current state of the engine. As inefficiencies develop, real-time modifications can be made to model properties and constraints. These “**on-the-fly**” changes allow users to instantly realize potential gains and perform dynamic optimization. As a result of the “**no-code**” modeling, **Simcad Pro’s** dynamic capability drastically reduces the time required to build, analyze, and optimize simulation models. Simulation modeling is no longer the forte of the elite few, but a tool used by a vast spectrum of users enabling industries to benefit from the power of Dynamic Simulation®.



- New patented multi-core simulation engine utilizes the most advanced hardware technology.
- GUI interfaces directly to the engine.
- No-coding required.
- Quick model turnaround; model development in days or weeks instead of months and years.
- Interactive simulation environment, play the game, live optimization features.
- “On-the-fly” model changes to model constraints and parameters during the simulation run.
- Fully animated, both in 2D and 3D representing the true state of the engine.
- Dynamic interaction with external tools (Excel®, Databases, ERP, WMS, EMR, PLC RFID, etc.).
- Dynamic creation of additional analysis tools (Value Stream Maps, Process Maps, Gantt Charts, Scenario Analysis, etc.).

Reduce model building time, work efficiently, and eliminate coding with Simcad Pro Patented Dynamic Process Simulator.

Simcad Pro Modeling

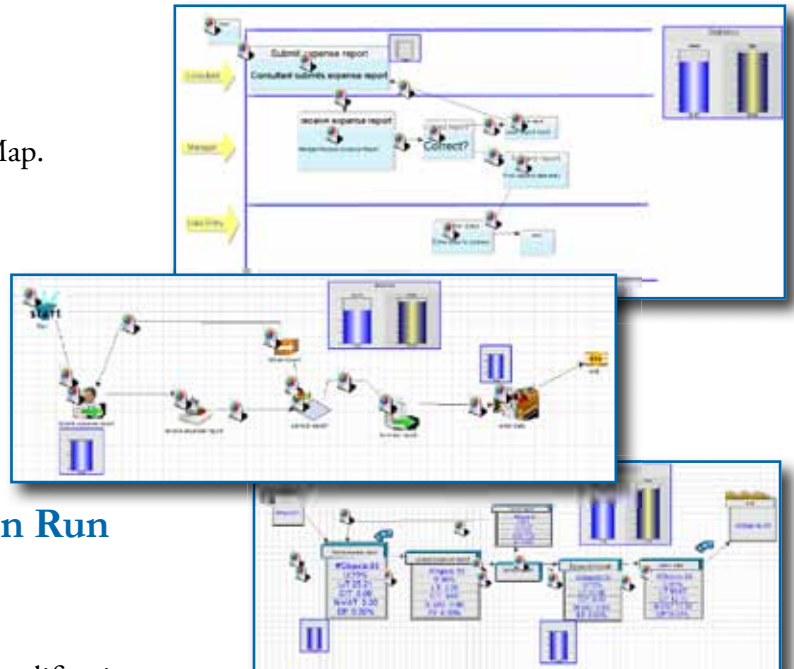


Model Building

- Point and click interface, for model flow creation in both 2D and 3D.
- Menu driven constraint definition eliminates the need to code.
- Customizable icons supporting multiple 2D, 3D and CAD file formats.
- 2D/3D animation automatically created.
- Fully animated 3D components.
- Full support for material handling equipment with built in conveyors and carriers.
- Unlimited nesting of flow layers and elevations.
- Wizard based tools to facilitate data import, export, and model creation.
- Module definition and loading to eliminate the need for repetitive tasks.
- Import Microsoft Visio© files, generate **SimcadOnline** packages and interface with **SimData Pocket PC Data Collector**.
- Full support for Resources, Shifts, Carriers, Assembly, Disassembly, MTBF, MTTR, Change over, etc.

Model Views and Display Layers

- All views support full animation capability.
- Define each view separately while sharing process properties and constraints.
- Dynamic Value Stream Map and Value Network Map.
- Detailed Process View with hyper-links; embed documents and files into each process.
- Unlimited number of annotation layers for model documentation.



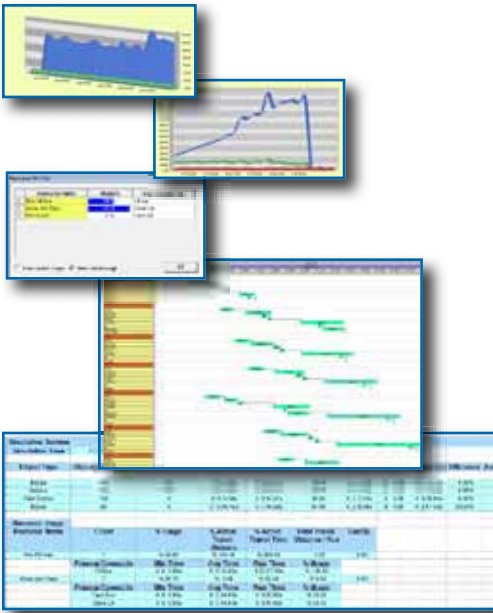
Model Updates During the Simulation Run

- Add processes, modify constraints, and positions.
- Modify paths, conveyors, and speeds.
- Flow modifications, object re-routes, distribution modification.
- Pause/Resume/Load/Unload individual processes.
- Control animation speed and display options.
- Live data feed from external applications with dynamic updates to the model.

Simcad Pro Analysis

Simulation Control

- Pause, accelerate, or decelerate the simulation at different user controlled intervals.
- Live model and process feedback through dynamic updates.
- Dynamic object image generation with on-screen object status display.
- Initial state and order sequence loading.
- Full distribution support.
- Simulation data-reset eliminates the effect of “warm-up” time.

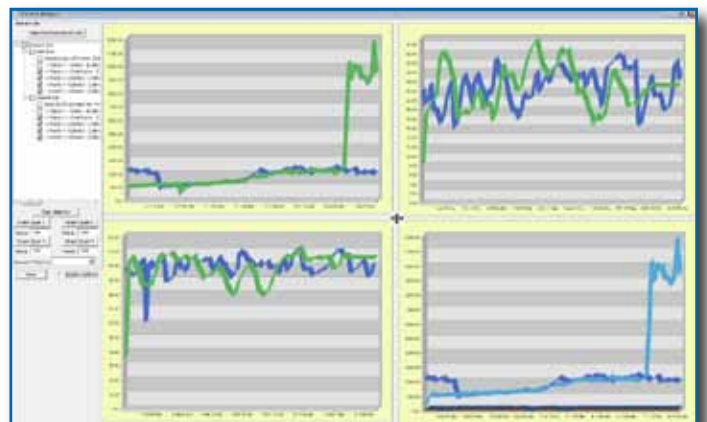


Built in Reports and Graphs

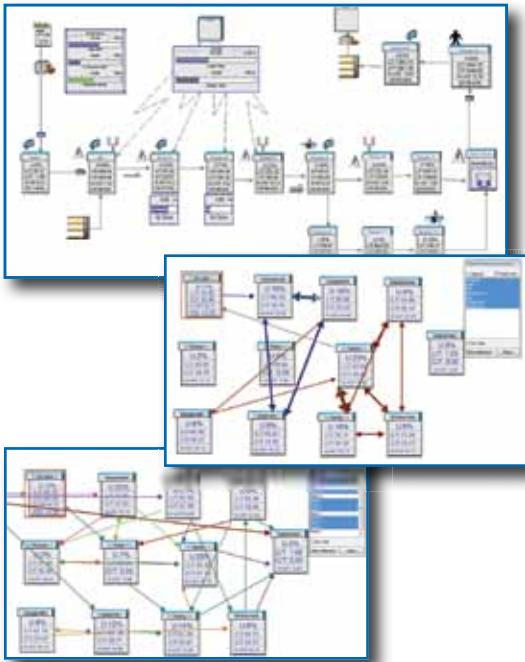
- Simulation summary reports generate key performance indicators (lead time, cycle time, hands on time, resource touches, travel distances, and more).
- Detailed process and connection reports.
- Dynamic Gantt chart provides detailed schedules for processes, objects, and resources.
- Simulation analysis reports facilitate bottleneck identification and constraints.
- Customizable graphing tool for standard and user defined properties.
- Dynamic data export to external applications.

Scenario Analysis and Optimization

- Built in Scenario Analyzer tool with full graphing capability.
- Display up to 4 simultaneous graphs, each displaying multiple values.
- Scenario “data set” save feature with model copy.
- Complete data log with integrated log analyzer and graphing tool.
- Fully featured background Optimizer to help identify best scenarios.
- Work Order Optimizer generates the most efficient production sequence.



Simcad Pro - The Lean Side



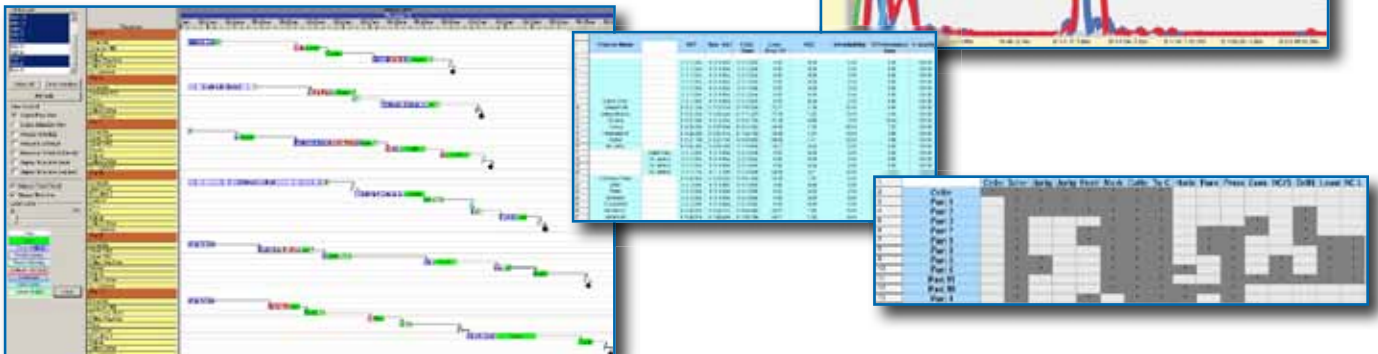
The Value Stream Map

- Display the Value Stream Map in the traditional format, or place on top of a CAD layout.
- In addition to the static values in the VSM, **Simcad Pro** dynamically computes all required parameters including lead time, efficiencies, value added time, waste time, etc.
- Changes to the simulation model are dynamically transferred to the VSM view, and all computed data is updated.
- For high mix operations, enable the Value Network Map to display product specific results and the impact of product mix.
- The VSM can be displayed along with the object or resource flow spaghetti diagram.

Lean Reports and Analysis

Simcad Pro also provides an extensive list of reporting and analysis tools to further improve the lean analysis environment;

- Product sorting and grouping for high mix operations.
- Detailed routing analysis for every object flowing through the system.
- Efficiency computation reports.
- Part based efficiency and its effect on the overall model.
- Cycle time breakdown showing non value added time and schedules in a Gantt chart format.
- Effects of transition and product movement on the flow.

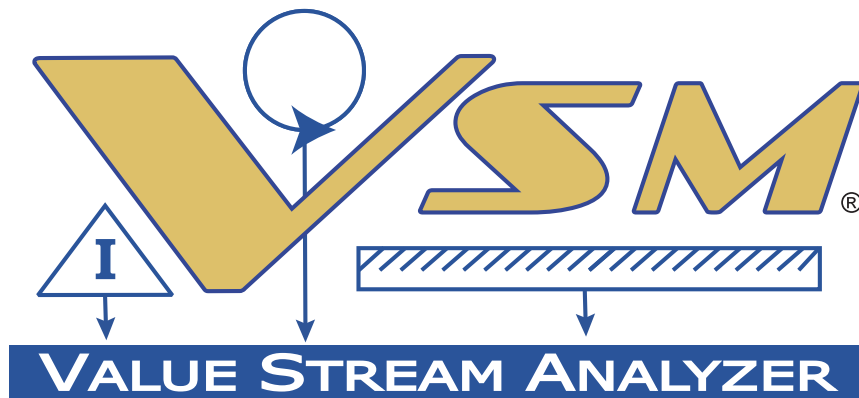


Product Comparison

<i>Features</i>	<i>Basic</i>	<i>Pro</i>	<i>Advanced</i>	<i>Elite</i>	<i>SimTrack</i>
User Interface					
Patented No Coding Environment	✓	✓	✓	✓	✓
2D Visualization	✓	✓	✓	✓	✓
Dynamic Model Interaction	✓	✓	✓	✓	✓
CAD Interfaces	2D	2D	2D	2D/3D	2D/3D
3D Visualization				✓	✓
Lean/TQM/Six Sigma Tools					
Dynamic Lean/Six Sigma Analysis			✓	✓	✓
Object Routing & Grouping Analysis			✓	✓	✓
Integrated, Dynamic Value Stream Mapping			✓	✓	✓
Model Components					
Labor Resource Allocation		✓	✓	✓	✓
Conveyors/Robotics/Carriers/Transports		✓	✓	✓	✓
Material Handling Equipment		✓	✓	✓	✓
Change Over/Setup/MTBR/MTTF		✓	✓	✓	✓
Statistical Reporting Tools					
Real Time Feedback	✓	✓	✓	✓	✓
Dynamic KPI/Metric Reporting		✓	✓	✓	✓
Costing Analysis		✓	✓	✓	✓
Scenario Analysis			✓	✓	✓
Schedule/Sequencing Optimization			✓	✓	✓
Dynamic Optimization			✓	✓	✓
Additional Features					
Continuous & Discrete Simulation Support	✓	✓	✓	✓	✓
Dynamic Analysis & Forecasting	✓	✓	✓	✓	✓
Real Time Data Import - RFID/MRP/ERP			✓	✓	✓
Real Time Visibility					✓
Replay with Dynamic Simulation® Analysis					✓
Live Forecasting With Alerts					✓
Dynamic Asset Tracking & Visibility					✓

VALUE STREAM ANALYZER

Interactive Dynamic Value Stream Mapping



Value Stream Analyzer

Benefit from Dynamic Value Stream Analyzer Interaction

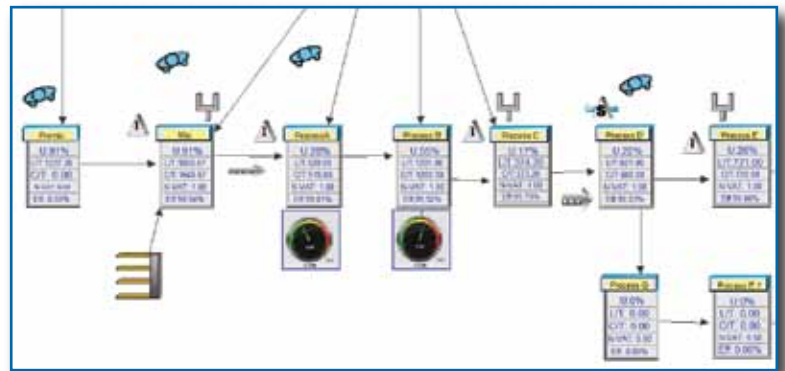
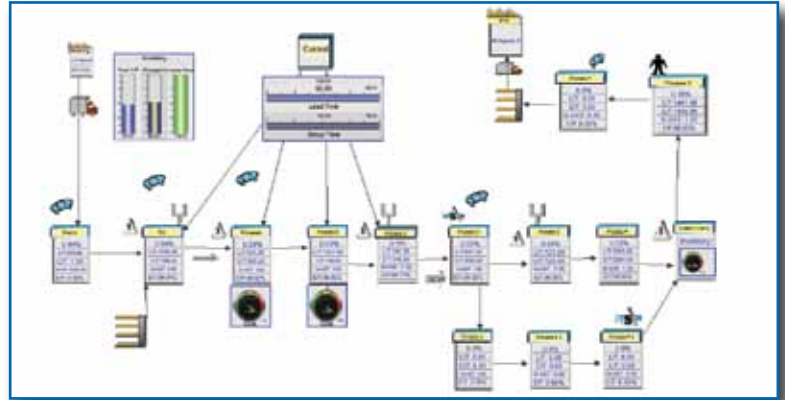
During the simulation run, make “on-the-fly” modifications to inventory levels, process capacities, timings, etc. and instantly realize the implications of the proposed changes on the operation.

The **Value Stream Map Analyzer** includes a complete value stream mapping tool coupled with a powerful simulation engine to provide real time feedback, custom graphics, and an animated flow.

Creating the value stream map is done through a drag and drop interface with all formatting performed automatically.

Customize the map by displaying gauges and graphs to highlight key performance indicators.

All value stream maps created by the **Value Stream Map Analyzer** can be imported into **Simcad Process Simulator** for additional analysis.



Features

Bring Your Value Stream to Life with the Dynamic Value Stream Analyzer

- Custom Templates - Standardize your value streams by creating and applying custom templates to the value stream maps.
- Stand-alone Value Stream Mapping & Analysis Software.
- Map Layering - Expand processes into nested value stream layers for added detail.
- Multiple state comparisons on the same screen.
- Dynamic “Time Line” creation based on the analyzer runs.
- Simple Drag and Drop GUI.
- Complete VSM icon library.
- Import Custom Images.



SIMDATA

Pocket PC Based Data Collection Software



Benefit From Real Time Data Collection

SimData Pocket PC Data Collector provides an interface between a Windows mobile PC and **Simcad Process Simulator** which enables the user to collect data and perform time studies related to the flow.



Features

SimData Pocket PC Data Collector Allows You To:

- Streamline the process of collecting accurate data for time study purposes.
- Walk the floor and perform time studies on different processes.
- Collect data related to the flow to assist in model building and value stream mapping.
- Dynamic model synchronization of collected data.



SIMCAD VIEWER/SIMCAD ONLINE

Thin-Client Web Enabled Simulations

SimCAD[®]
Viewer

SimCAD[®]
Online.com

Simcad Viewer/Simcad Online

Simcad Online: Thin Client Web Enabled Simulations

View and make changes to the model online using **Simcad's** patented dynamic capability. **Simcad Online** provides users with a web based thin-client allowing model collaboration, distribution, and scenario analysis without the need for a local install of the full viewer software.



Simulate, Analyze, Collaborate

The **Simcad Viewer** allows users to share models and collaborate on projects without the need for a development license. In addition to running the models, **Simcad Viewer** enables users to modify predetermined model constraints. **Simcad Online** is an excellent environment for those who do not need to build models but require the ability to interact with the model, modify constraints and perform scenario analysis.

SIMTRACK

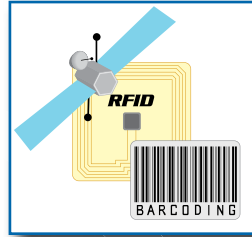
Track. Replay. Forecast.



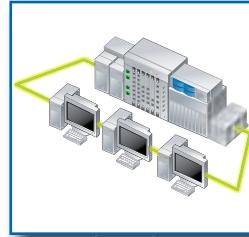
Graphical Model Flow and Constraints



RFID, GPS, PLC/ OPC, Barcode



Database



ERP/WMS/EMR/ MRP



SimTrack[®]

Dynamic Visibility & Analysis

Alerts & Notifications



Real-time Visibility



Remote Monitoring



Dynamic Replay Feature



Dynamic Forecasting



What is Simtrack?

SimTrack is a dynamic visibility and analysis tool that utilizes **Simcad Pro's** patented technology to provide real-time operational visibility, dynamic replay, proactive forecasting, and customizable reports. **SimTrack's** open architecture enables it to interact with a multitude of live data systems – RFID, BarCode, GPS, PLC, WMS, EMR, ERP, MRP, etc. - enabling organizations to better manage the daily activities, improve system efficiencies and provide historical replay and analysis to help in understanding the past and improving the future.



RealTime Visibility

View tracked items in realtime in 2D or 3D. Hover over an item to display a quick summary, or click the item to display detailed tracking information and properties.



Remote Monitoring

SimTrack enables multiple remote views of the operation. In addition, a web based interface is provided for data monitoring and reporting.



Dynamic Replay with Analysis

Replay the tracked data just like a video. Rewind the clock and view step-by-step the activities as they occurred. Switch **SimTrack** to simulation mode and use the replay data to optimize and improve the flow using the integrated **Simcad Process Simulator**.



Alerts and Notifications

The user-defined proactive analysis environment allows for identifying problems before they occur and alerting appropriate personnel to take corrective action before they impact the throughput of the operation.



Dynamic Forecasting & Analysis

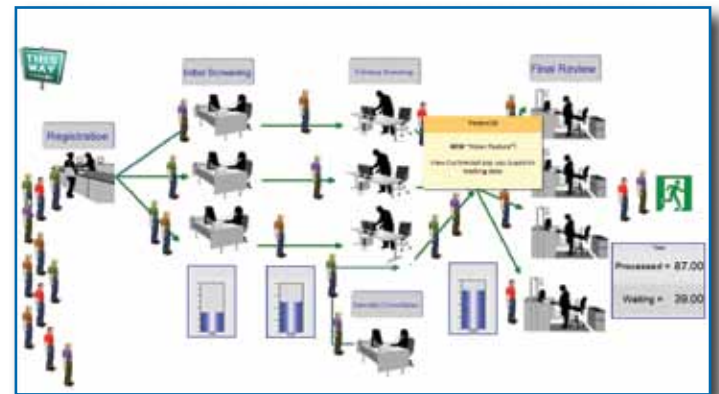
Accurately predict the future of the operation using live data feeds, Dynamic Simulation®, and historical trends. Display the forecasted state on web enabled dashboards for increased visibility.

Simtrack Applications

Logistics Systems and Warehousing

Visualize every warehousing operation, track trucks and material handling equipment, and optimize the overall operation dynamically with **SimTrack**.

- View key metrics including slot utilization, velocity, pick times, etc.
- Internal and external equipment route optimization.
- Replay activities and implement improvements based on valid data.
- Monitor multiple warehouses simultaneously.
- Live alerts and notifications for proactive analysis and optimization.
- Detailed traceability and tracking reports.



Yard Management System

SimTrack implementation of a Yard Management System enables management and yard supervisors to graphically monitor the yard activities.

- Virtual yard view displaying status and location of every trailer.
- Alerts when trailers exceed their expected loading time.
- Detailed manifest and trailer history in a single click.
- Historical analysis and replay.
- Minimal installation and training requirement.

Healthcare Systems

SimTrack provides a live view of the operation while providing expected wait times and delays based on current constraints and staffing levels.

- Track Patients, healthcare providers, equipment, and other entities.
- Maintain proper scheduling to minimize patient wait time.
- Replay specific activities and implement improvements based on valid data.
- Enable multiple views into different segments of the operation.

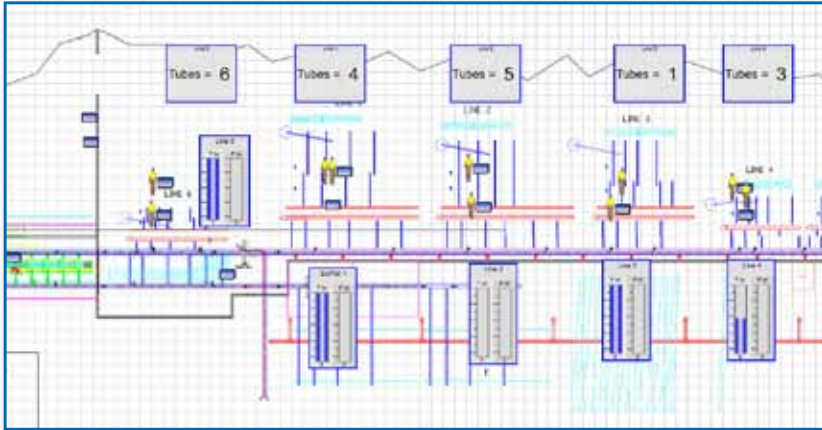
GENERAL MANUFACTURING

Automation, Job Shops, Manufacturing, etc.



Improving Manufacturing Practices

The manufacturing environment is faced with many challenges that must be properly identified, analyzed and optimized prior to implementing any operational changes. With **Simcad Pro** dynamic process simulation, manufacturing operations have the ability to mitigate and reduce risk with the proper planning of processes prior to implementation.

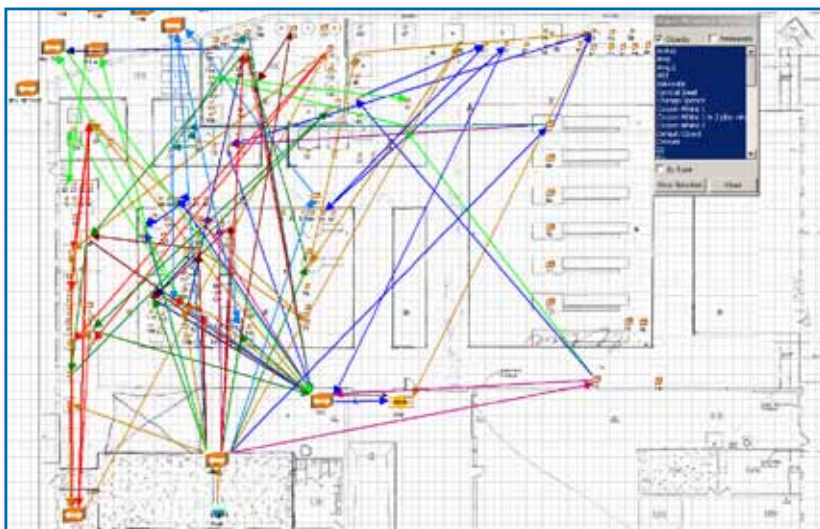


Equipment Feasibility Analysis

With the current state defined and validated, **Simcad Pro** is used to analyze the effect of new equipment, re-align process flow, or make changes in shifts and man power availability. Study the effects of different constraints and plan ahead through dynamic data imports and CAD layout interactions.

Visual Representation and Spatial Analysis

Design your models in pure 3D or migrate them through integrated **Simcad Pro** 3D tools to achieve superior analysis and improved visualization. Validate each flow using the “Object Follow” feature to provide a preview of the proposed flow from different perspectives.



Dynamic Lean Analysis

With the model built, enable the Lean Analysis tools of **Simcad Pro** to display the Value Stream Map or Spaghetti diagram view of the operation.

High mix operations benefit from **Simcad Pro's** ability to import routing tables from external applications and to sort product routings.

HEALTHCARE SOLUTIONS

Hospitals, Clinics, Blood Centers, etc.

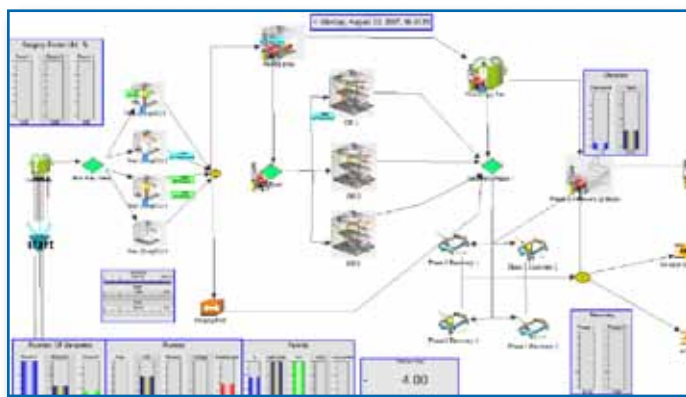
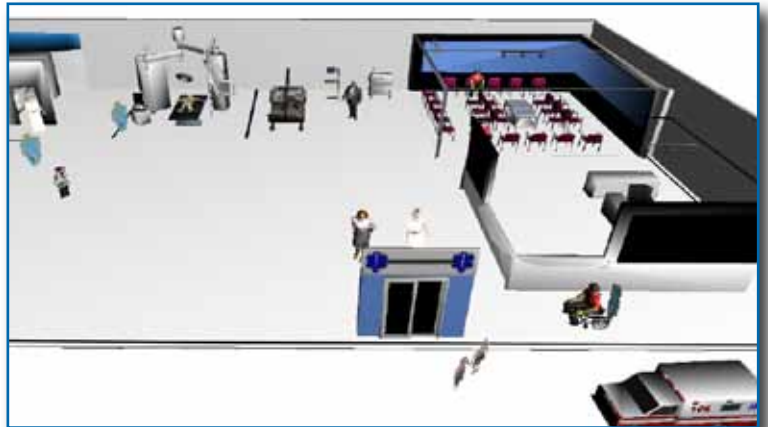


Improving Healthcare

Under intense scrutiny to deliver improved service and performance while reducing operating costs, the healthcare industry is uniquely positioned to benefit from the decision support capabilities of **Simcad Pro**, the only patented dynamic process simulation and 3D visualization tool.

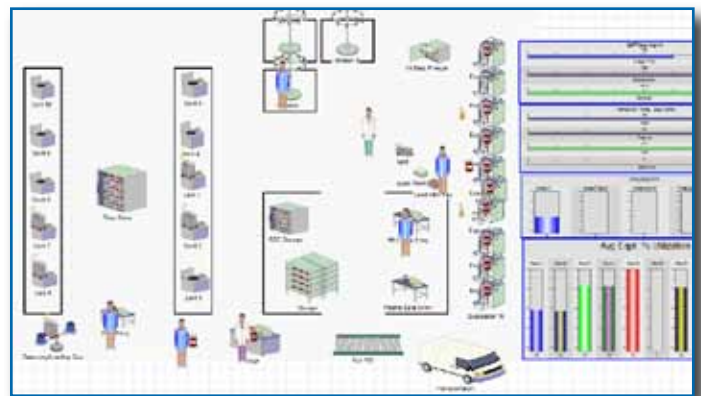
Improving the Layout and Patient Flow in the Emergency Department

In a full featured 3D environment, watch the model from a resource or patient point of view using the “dynamic walk-through” feature.



Proactive Scheduling of the OR

Study the effect of layout, staff, and case load to improve the efficiency of each OR room.



Blood Processing Center

Applying lean methods to improve efficiency and reduce lead time.



Identify the Most Efficient Layout

Whether designing a new patient room or an entire hospital, **Simcad Pro** enables complete efficiency analysis and transitional plans for maximum ROI.

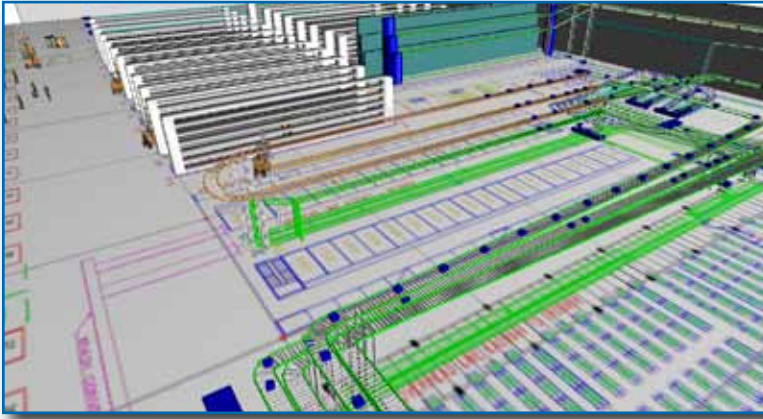
SUPPLY CHAIN LOGISTICS

Transportation, Material Handling, Distribution, etc.



Supply Chain Optimization

Logistics systems, large distribution warehouses, and material handling equipment are key components to some of the most intricate supply chain environments. **Simcad Pro's** dynamic multi-core simulation engine reduces the complexity of building such interactive systems.

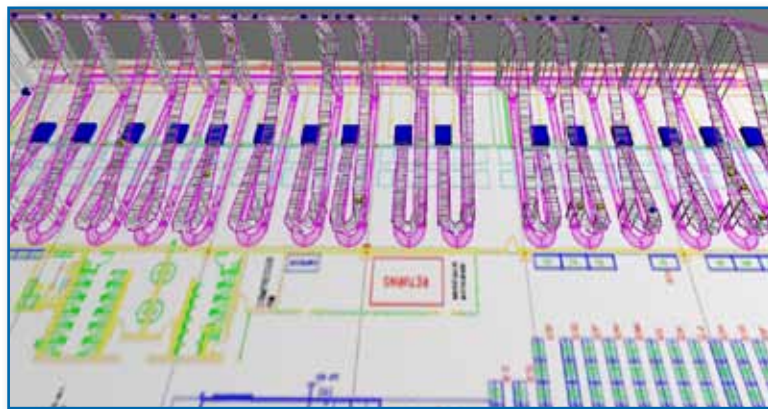


Warehousing: Receiving, Picking, and Distribution

The three building blocks of any distribution warehouse are simulated, in 3D, with **Simcad Pro**. The CAD file import feature computes travel distances, while **Simcad Pro's** 3D interactive model building simplifies the creation of material handling logic.

Distribution Optimization and Going Green

The transportation of commodities such as oil and gas, or perishable food items can be costly and inefficient. Using **Simcad Pro**, companies can optimize their delivery routes, distribution schedules, and transportation cost, ensuring product freshness while eliminating unnecessary waste.



Distribution Networks

With **Simcad Pro's** ability to dynamically interact with external data, companies have successfully implemented simulation to analyze the location of warehouses and distribution centers with respect to demand. Product allocation is no longer a guessing game, but a simulated science that simplifies one of the most complex problems in this industry.

SERVICE & OFFICE SOLUTIONS

Banking, Insurance, Document Flow, etc.



CREATEASOFT INC.

Process Improvement Solutions



Process Improvement Solutions

The CreateASoft Edge

CreateASoft offers a competitive edge over other providers by focusing on Dynamic environment driven tools and solutions. The ability to adapt and stay ahead of the competition is vital to CreateASoft and its clients. CreateASoft constantly thrives to create new innovations and software solutions in order to satisfy and address the challenges facing its clients.

CreateASoft's core innovation took simulation from a pure analysis function to a practical daily management tool affecting every aspect of the organization. Simulation is no longer relegated to a static preoperational design tool, rather an operational tool serving as an integral part of a dynamic functional environment which meets the changing daily business fluctuations. This innovation further provides proactive monitoring and visualization in 2D and 3D to effectively navigate through the clients' daily challenges.

CreateASoft is also an innovator in providing simulation environments that require no coding. While other providers heavily relied on code to build their simulation models, CreateASoft developed a graphical environment that requires no coding nor does it generate code. The resulting environment is a simulation tool that enables every member of the organization to be proactive and perform analysis, a task that was once reserved to the select few.

Our patented dynamic environment works in real time, enabling the dynamic simulator to interface with live data feeds such as barcodes, RFID, GPS, EMR, WMS and other tracking devices. This interface provides a proactive environment that constantly monitors the future of the operation alerting company personnel of potential problems and bottlenecks that may occur based on the current conditions. This dynamic environment serves as an early warning tool to enable solutions to be developed before the onset of a potential problem, thus in many cases, avoiding the problem all together.

As part of CreateASoft's commitment to shed the old static processes of the past, all developed tools integrate the required lean analysis metrics and charts in order to enable further efficiency improvement in a timely manner. Tools such as value stream maps, process maps, Gantt charts and dynamic scheduling are an integral part of every designed solution.



MULTIPLE PATENTS AWARDED FOR DYNAMIC SIMULATION®: TECHNOLOGY Chicago, IL 2010

Industry leader CreateASoft, Inc., established in 1992, has been awarded multiple patents for **Simtrack** and the **Simcad Pro Dynamic Process Simulator** by the United States Patent and Trademark Office.

Changing the game, **Simcad Pro** provides an extensive dynamic modeling environment enabling an interactive process optimization experience. Dynamic, interactive simulation allows users to make “**on-the-fly**” design changes, immediately impacting the operation’s performance and efficiency. Thanks to the patented technology, and a fully functional Graphical User Interface (GUI), CreateASoft, Inc. has achieved what many claim; **no more coding, no more compiling.**

The nature of the dynamic simulator delivers instant 2D and 3D animation of the operation as well as instant feedback on key performance indicators as the simulation progresses. While the user runs the simulation, problem areas can be observed and modified instantly. This feature provides unprecedented foresight detailing how the proposed changes impact the “point of attack,” as well as the operation as a whole.

Such an advance in technology drastically reduces the time required to develop and optimize the model. Users working with **Simcad Pro’s** dynamic environment have reported reductions in modeling time from weeks to days for simple to moderate projects and from months to weeks for projects of high complexity.

Not only is **Simcad Pro** powerful, it is also accessible. While other simulation software available in today’s market rely on extensive coding to achieve the same results, **Simcad Pro’s** user-friendly interface allows users of any technical ability, from salespeople to IT professionals, to unlock the full potential of Dynamic Simulation®.

SimTrack, built on Simcad Pro’s Dynamic Simulation® technology, delivers a patented solution for real-time visibility, remote monitoring, forecasting, and dynamic replay with analysis. SimTrack enables proactive management of the operation through web enable dashboards, alerts and custom notification..

SimCAD®
Process Simulator.com

SimTrack®
Dynamic Visibility & Analysis

The Simulation ROI

With the current state of today's economy, industry professionals throughout the nation are looking for process improvement methods to lower cost and increase efficiency; while achieving sustainable, competitive edge. With many challenges surrounding the validation of a proposed solution, process optimization often evades the best of us.

Simulation technology has evolved exponentially over the last few years, providing users a dynamic interface which drastically reduces the time required to create the model and improve the overall accuracy of the simulation run.

The simulation model not only provides guidance to the areas that require immediate attention, but allows users to gain an unprecedented insight of the process flow prior to the lean transition.

Using Dynamic Simulation[®], a replica of the current operation is created and validated to prove that the baseline model behavior and results are comparable to existing data. Once the ideal process improvement solution is determined, the transition plan can be tested and analyzed to minimize the impact on current production schedules, allowing for optimum efficiency during an otherwise hectic phase of the improvement project.

For instance, during analysis the model may show "excessive" resource travel within an operation. More specifically, costs are progressively incurred through the non-value added time to the total product lead time. A resource that travels to move parts from one location to another 30% of the time will

cost the company 30% of salaries, benefits and intangibles without generating a return. Furthermore, the excessive travel causes an increased inventory on the production floor and longer product lead time. As a result, money which could otherwise be used to improve cash flow or implement process improvement initiatives is now tied up in the operation.

The total savings in such an implementation is \$9500.00 off the bottom line inventory cost. This amount was tied up in "in-production" inventory used mainly to keep production flowing. In addition,

eliminating a \$2.25/hour per person, in a 200 employee factory equals \$3600.00 per shift compounded over a year (340 days) \$1,224,000.00 per year per shift. Add to that the reduced lead time, which increases the production throughput by 46% using the same equipment, resources, and schedules. The bottom line? One less production shift.

Since Dynamic Simulation[®] not only provides a

"Risk Management and Reduction" environment, but a comprehensive view into the intricate details of the operation, there is no longer the need to take an uncalculated risk in determining the best flow for an operation. Bypassing the use of simulation is a liability to companies faced by fierce competition to reduce production cost and lead time. Companies in all sectors, from manufacturing and automation to healthcare and banking are utilizing Dynamic Simulation[®] technology to identify optimum process solutions and maximize their overall bottom line. Are you?

CURRENT OPERATION			
Resource Travel	30% of the work time	Hourly wage: \$15.00	Total Non-Value cost \$4.5 / hour
Additional Inventory	1000 Parts	\$10 / part	\$10,000.00 in inventory cost to keep production flowing.
Lead Time	3 Days 4 Hours	Total Cycle time: 2 Days	1 Day and 4 hours of lost production time per part
FUTURE STATE			
Resource Travel	Down to 15%	Hourly wage: \$15.00	Total Non-Value cost \$2.25/hour
Additional Inventory	50 parts	\$10 / part	\$500.00 in inventory cost. More streamlined operation, less stored parts to keep production flowing.
Lead Time	2 Days 4 Hours	Total Cycle time: 2 Days	4 Hours of lost production per part.



Process Improvement Solutions

CONSULTING SERVICES

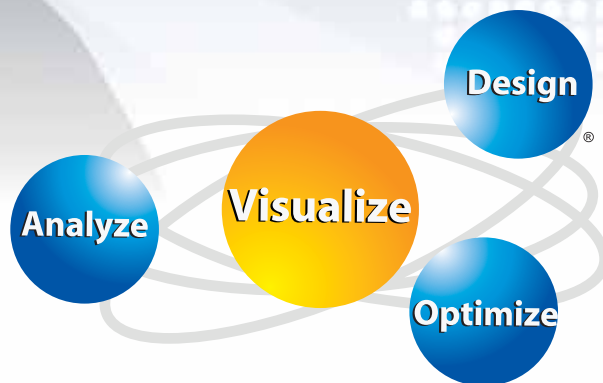
Sustaining Competitive Advantage through Process Excellence.

- Identifying and prioritizing improvement projects.
- Validation of proposed implementations under time constraints.
- Analysis and recommendations for future state planning.

TRAINING SERVICES

CreateASoft Inc. offers training to accommodate multiple skill levels.

- Self-paced web based training.
- Access to online tutorials.
- On-site group training sessions.
- Group training sessions at CreateASoft, Inc.



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