

Specialty Systems Engineering

President's Letter

Hello,

In today's business climate it has become more and more difficult to attract and retain top technical personnel. At the same time, many industrial based businesses feel the following quote from Pogo correctly describes their industry:

"We are surrounded by insurmountable opportunity."

Add to this, the speed at which technology is changing and the challenge of keeping your technical staff current. It is nearly impossible for medium and small sized industrial businesses to maintain expertise in the numerous disciplines. Finally, heap onto your technical staff the work load of supporting sales, marketing, distribution, service, manufacturing, purchasing, and let us not forget the customer. No wonder you feel behind on your new developments. Understandably, you are! So how can SpecSys help?

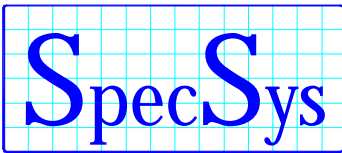
We realize that maintaining a strong technical base is our life blood. We perform all of our drafting in 3-D and we utilize numerous state of the art analytical tools, such as Finite Element Analysis (FEA) and mobile data acquisition.

We are so confident that our costs are competitive with your internal engineering, design, documentation and testing expenses that we do not charge for proposals. Simply put, we would appreciate the opportunity to demonstrate our capabilities. If you have a project that isn't getting the attention it deserves, please call. No project is too big or too small.

Thank you for taking time to consider this unique resource.

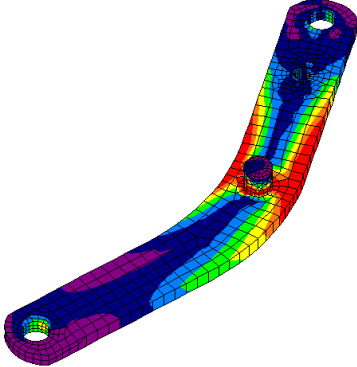
Sincerely,

Kevin R. Wald
President



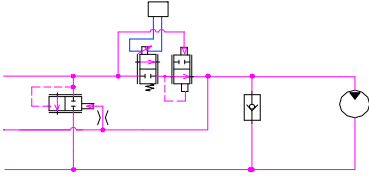
Specialty Systems Engineering

Analysis

Finite Element Analysis

Finite Element Analysis (FEA) is a tool for reviewing structural designs with respect to forces, moments and stress/strain. It is a tool that most companies can not do without. Yet, they find it very difficult to allot the time and expense to setting up this important capability, and once setup, only to find they need this analysis performed only a half-dozen times a year. Each time requires a relearning of the system, making the process very inefficient. SpecSys provides this service to numerous clients, allowing our staff to remain very efficient, as well as continuously trained in the field of FEA. Having worked with numerous companies, we understand your staff may not be proficient in the finer points of FEA. With this in mind, we make certain to explain the process and data we will need to get started. Upon completion we present color plots of the results, making certain you fully understand the data provided. After all, if you don't understand our analysis, how can you implement the correct design?



Hydraulics/Pneumatics

Whether your system involves a simple valve and cylinder, or includes a complex hydrostatic system with dual speed motors and proportional flow controls, SpecSys has the experience and expertise you need. We have a solid background ranging from filtration & contamination to system design, component sizing, heat dissipation and troubleshooting.

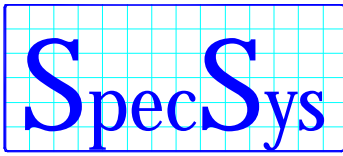
Pressure **Temperature**
Flow **Pulse** **Resistor**
Speed **RPM** **Rotation**
Global Positioning System

Controls & Electronics

In today's competitive market your products must be easy to use. Often "ease of use" means automation, custom control panels, and electronics. The challenge is where do you turn for help with these designs. SpecSys personnel have worked with over 5000 electronic & control systems that are in the field today. We have direct knowledge of pressure, flow, temperature, RPM, pulses, linear resistors, and GPS integration into control

117 1/2 N. 1st Street • Montevideo, MN 56265 • (320) 269-3227 • Fax (320) 269-7982

Division of RITALKA Corporation



Specialty Systems Engineering

Documentation

Desktop Publishing

We are equipped with desktop publishing software, color printers, scanners and plotters. We can help you document your technical project or product. If your material needs to end up on paper, CD's or video, we have the experienced staff to help. We are proud of our demonstrated abilities to take very technical subjects and present them in a clear and understandable format. We understand that publishing a technical document is more than scanning a photo!

- Operators Manuals
- Service Manuals
- Installation Instructions
- Assembly Instructions
- Test Documents
- Specifications
- Promotional Literature
- Presentation Materials

Call us for Websites, CD's & Video!

Bill of Materials

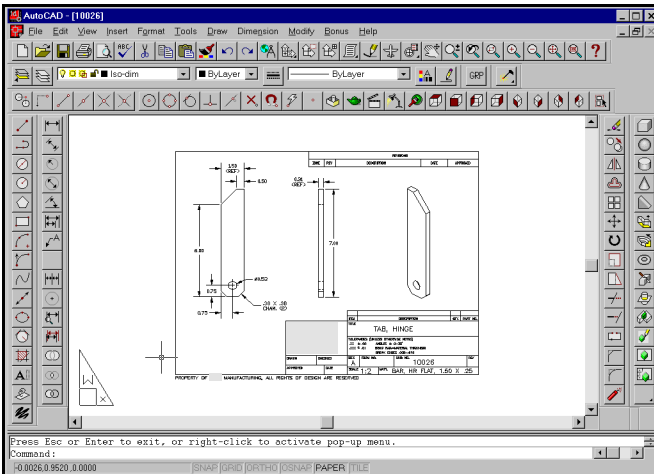
As a seasoned designer, you know the topic of "Bill of Materials" is more than a simple parts list. How your bill of materials are structured has far reaching implications. Your

bill structure can impact sales, manufacturing, parts, service, distribution and, of course, let us not forget YOUR CUSTOMER. We know that a "one system fits all" approach is dangerous. Whether your needs are as simple as working on a single product, or revamping your entire system, we can help.

Engineering Prints

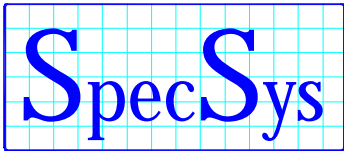
Utilizing AutoCAD and Mechanical Desktop, we can work with your 2D, 3D, IGES, ACIS or DXF files. We have the experience and manpower to document your design from the smallest piece, to the largest assembly. Let us demonstrate our capabilities with:

- Machining & Casting Prints
- Fabrication Prints
- Weldment Prints
- Vacuum Formed & Roto Molded Prints
- Assembly Prints



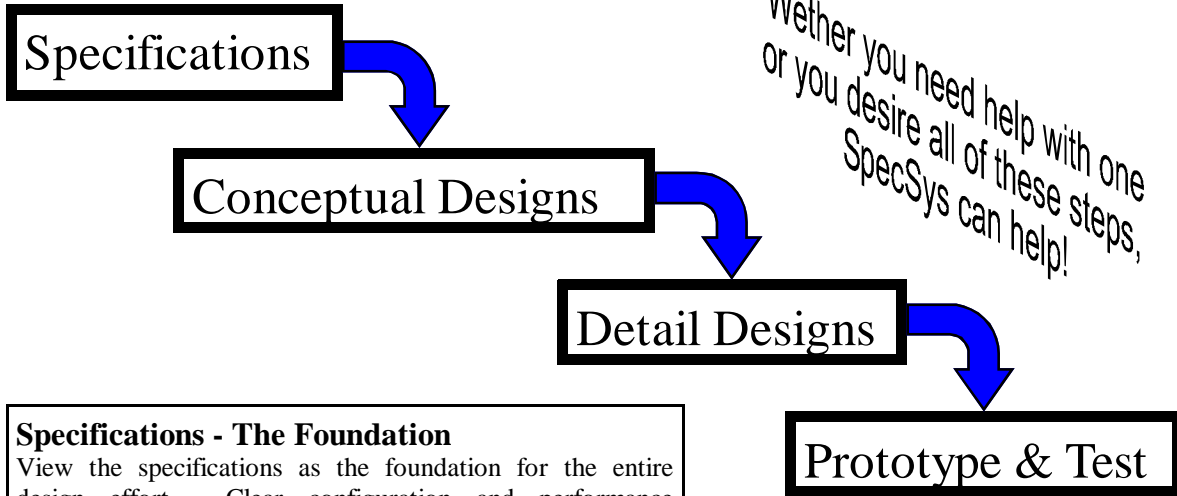
117 1/2 N. 1st Street • Montevideo, MN 56265 • (320) 269-3227 • Fax (320) 269-7982

Division of RITALKA Corporation



Specialty Systems Engineering

Design



Whether you need help with one or you desire all of these steps, SpecSys can help!

Specifications - The Foundation
 View the specifications as the foundation for the entire design effort. Clear configuration and performance specifications are the key to assure you don't false start on a time critical development. How often have you been involved with a project that is 75% complete, only to take a large step backwards due to a major design change? Often these backward steps are not from technical road blocks, but the result of a lack of key information in the beginning. SpecSys has the experience to bring out this key information early, which will reduce the chance of a last minute redirection.

Conceptual Design - Science Meets Art
 We have all seen the market results of a design that is technically sound, but cosmetically poor. The ability to balance a clean look with technical know how has always proven to be difficult to define. SpecSys designers and engineers have numerous successful products to their credit and they take pride in their artistic talents as much as their solid engineering knowledge. We are equally comfortable working with your engineering staff and marketing personnel.

Detail Design - Make it Happen
 Now is the time to turn the crank. The direction of the project is clear, the look of the product is defined, the requirements are set. The focus is to move as quickly as possible, resulting in a prototype that can be put through the needed testing program. Designing completely in 3-D allows SpecSys to verify fit up and interference's early in the detail design process, minimizing problems at prototype. We finish this effort with a detailed design review with your staff. Since we have all the designs in 3-D, it is very easy to show non-technical personnel how your design will look.

Prototype & Test - Rubber Meets the Road
 Of all the steps in the process that one should slow down and spend more time, it is in this critical prototype and test effort. But, all to often this is the timeline that gets squeezed because of time slips during the previous steps. Unfortunately, the time slips are due to inadequate specifications (resulting in last minute design changes) and prototypes that don't fit together or have interference's. Clear specifications and reducing prototype revisions (utilizing 3-D) will allow for a wider window of

Data Acquisition

Equipped with a state of the art data acquisition system, SpecSys can monitor and record your critical data into a laptop computer. No need to be limited to a test stand, we can go with your products into the real world.



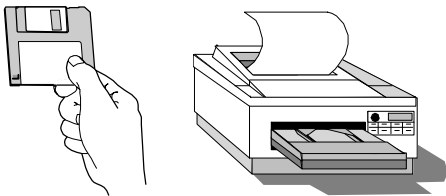
We can monitor and record each of the following, one at a time or a combination of:

- Pressure
- Temperature
- Fluid Flow Rates
- Strain
- Acceleration
- RPM
- Pulses
- Voltage/Current

Data Regression

*Data must be converted into knowledge
in order to be of any value.*

Seldom does a problem arise in which the answer wasn't known prior, but the form of data did not reveal the needed information to those who could have helped. SpecSys is acutely aware of the need to convert raw data into multiple formats that allow for understanding, and ultimately knowledge of the system. We have the experience to guide you through this critical process.



Data can be provided in the following formats:

- Tabular/Spreadsheet
- Bar Charts
- Pie Charts
- Line Plots
- Scatter Plots
- Logarithmic Scale

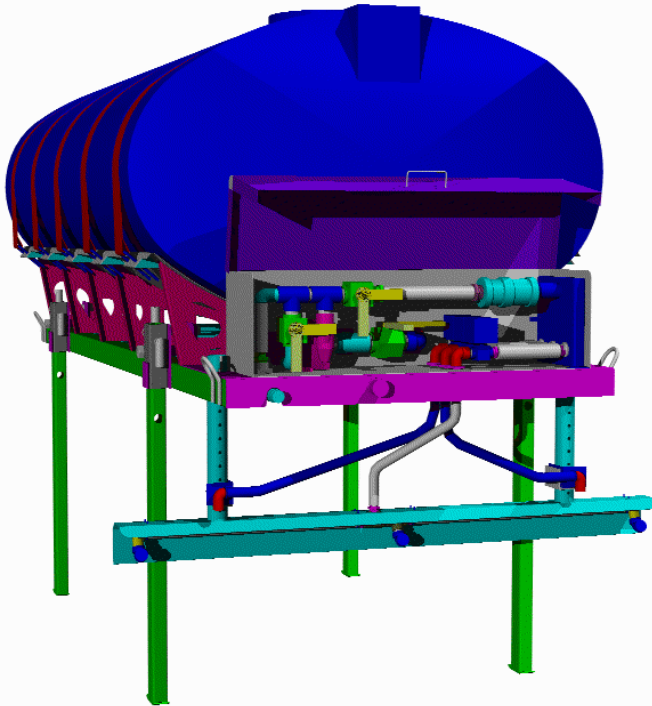
SpecSys can provide you with:

- Technical Reports
- Technical Overheads
- Presentation Overheads
- Maximum/Minimum (Peak Hold) Values



Specialty Systems Engineering

Turn Key



AutoCAD Rendering of a SpecSys Design

Opportunity: You have an idea and feel confident in the market need. This opportunity will make you money!

Window: You must move swiftly to leverage this opportunity.

Problem: Your current staff is buried in current projects and problems.

Solution: SpecSys

We have the capability and experience to take your project from start to finish. We can develop and deliver:

- ⇒ Market Studies
- ⇒ Specifications
- ⇒ Conceptual Designs
- ⇒ Engineering Analysis
- ⇒ Vendor Support & Supplier Selection
- ⇒ Detail Designs
- ⇒ Shop Prints
- ⇒ Bill of Materials
- ⇒ Shop Routings
- ⇒ Assembly Drawings
- ⇒ Operators Manual
- ⇒ Service Manual
- ⇒ Parts Manual
- ⇒ Test Document
- ⇒ Develop Prototype
- ⇒ Perform Testing
- ⇒ Sales Literature and Media Kits
- ⇒ Sales or Instructional Video's

117 1/2 N. 1st Street • Montevideo, MN 56265 • (320) 269-3227 • Fax (320) 269-7982

Division of RITALKA Corporation