

Mathcad[®]

The Global standard for engineering calculations

Simultaneously solve and document engineering calculations

Integrate text, live math and graphics

Reuse and share intellectual property

Enable predictive engineering with the Mathcad - Pro/ENGINEER integration



Who We Are

Impac Systems Engineering is a 22-year old Houston based company specializing in full service engineering, product design and engineering data management. We are a Certified Training Center and reseller for PTC. Our organization enables our customer organizations to generate immediate and sustainable value by delivering innovative engineered management solutions by leveraging the power of technology and our many years of experience.

What We Do

We offer engineering design and data management systems and services. Our approach combines state of the art design and management tools and professional engineering expertise to exceed expectations. We provide fast, thorough, innovative solutions to your technical management tasks. We focus on three service disciplines; strategy, development and creative design. All three are crucial elements of our engagements and work in concert to plan, design, build and implement the most comprehensive engineering solution.

Global Standard for Engineering Calculations



Today's top engineers use Mathcad to perform, document and share calculation and design work. The unique Mathcad visual format and scratchpad interface integrate standard mathematical notation, text and graphs in a single worksheet - making Mathcad ideal for knowledge capture, calculation reuse, and engineering collaboration. Mathcad drives innovation and offers significant personal and process productivity advantages for product development and engineering design projects. Unlike proprietary calculating tools and spreadsheets, Mathcad lets engineers design and document engineering calculations simultaneously with comprehensive applied math functionality and dynamic, unit-aware calculations.

Calculate, model, and visualize your ideas



Mathcad has hundreds of built-in functions and operators. Use Mathcad to perform numeric calculations or find symbolic solutions. Mathcad works with a wide variety of numeric and data types, and automatically tracks and converts units. Mathcad's 2D and 3D graphs update along with changes in your calculations. Plot types include Cartesian, polar, surface, contour, bar, scatter and vector-field plots. A picture operator gives you the same interactive display for image processing applications. Any part of a Mathcad document can be animated, including numerical results, graphs and images.

Verify, validate, and annotate your solutions



By integrating text, formulas and graphs in a single worksheet, you can easily visualize, illustrate and annotate calculation work. Your entire solution is contained and documented in one place. Formatting options and templates let you prepare documents to exact specifications. Engineering calculations and design work documented in Mathcad are easier to read, verify and validate because all of the key assumptions, equations, methodology and results are documented in natural math notation. The calculations can be read and understood by others, which dramatically improves design verification, validation, and audit processes.

Integrate data across software and systems



Mathcad features interoperability and connectivity with many popular desktop and engineering applications. The formal bi-directional integration between Mathcad and Pro/ENGINEER enables unique predictive engineering capabilities. Mathcad can be used to predict the behavior of designs and subsequently drive the key parameters and dimensions used in Pro/ENGINEER CAD models. Mathcad also supports (pseudo) real-time data acquisition, allowing you to exchange data with National Instruments analog (E-series) I/O boards and Measurement Computing analog I/O boards.

Share Mathcad worksheets and collaborate across networks



Share publication-quality worksheets across your entire extended engineering organization. Print, XML, PDF, or Web formats - enabling others to collaborate on design projects or simply view worksheets. Mathcad provides easy access to live math documents on your local network or the Web. Move seamlessly through your Intranet or Extranet with integrated browser and hyperlink support. There are several ways Mathcad supports activity in the browser. XML file format enables users to easily transform content to MS Word, PDF, HTML, and other publishing formats.

Have you looked at PTC lately?