# Agents of Innovation

**Motion Engineering Performance Services** 



Helping vou build a better machine. faster

## Agents of Innovation Focused on your machine

#### **Comprehensive Services for Embedded Motion Control**

With over 20 years of experience, Motion Engineering, Inc. (MEI), a Danaher Motion company, provides a wide range of innovative solutions for every area of high-performance embedded motion control systems – beginning with industry-leading products and extending to problem solving, field services and training.

We are a team of innovators with deep expertise and domain knowledge in robotics, electronic assembly, semiconductor, medical and more. We work collaboratively, as an extension of your engineering department to develop long-term relationships and help you build a better machine, faster.

We are Motion Engineering. We are your agents of innovation.

#### **System Tuning & Optimization**

The last few percentages of performance can mean significant marketshare and profit. In motion terms, this means tuning and optimizing the performance of a machine that seemed perfect in the design stage. We offer system performance measurement, move-time optimization, vibration and motion analysis and numerous other services that tune and optimize your machine.

#### Custom Feature & Product Development

Unique – and profitable – machine designs may require customized software or hardware. We specialize in exact-fit software and hardware designs. These may include custom network nodes or design kits, custom-packaged amplifiers, motors and I/O, specialized control algorithms and turnkey software elements or specialized functions.

#### **Advanced System Integration**

Our control platform leverages the SynqNet® network to create seamless integration among controls, drives and I/O. SynqNet is designed specifically to handle demanding motion applications and requirements for interoperable digital equipment. It allows MEI to offer best-in-class integration and/or start-up of components and/or sub-systems, system process development and system performance analysis.

#### **Software Development**

Software is at the heart of any motion application. But knowledge and experience are critical to make software effective and profitable. We have the expertise to define motionsoftware requirements, to help you architect and specify the best software, and to execute the most expedient coding and debugging. Turnkey function and feature development and specialized control algorithm development are two of the many areas of expertise we offer.

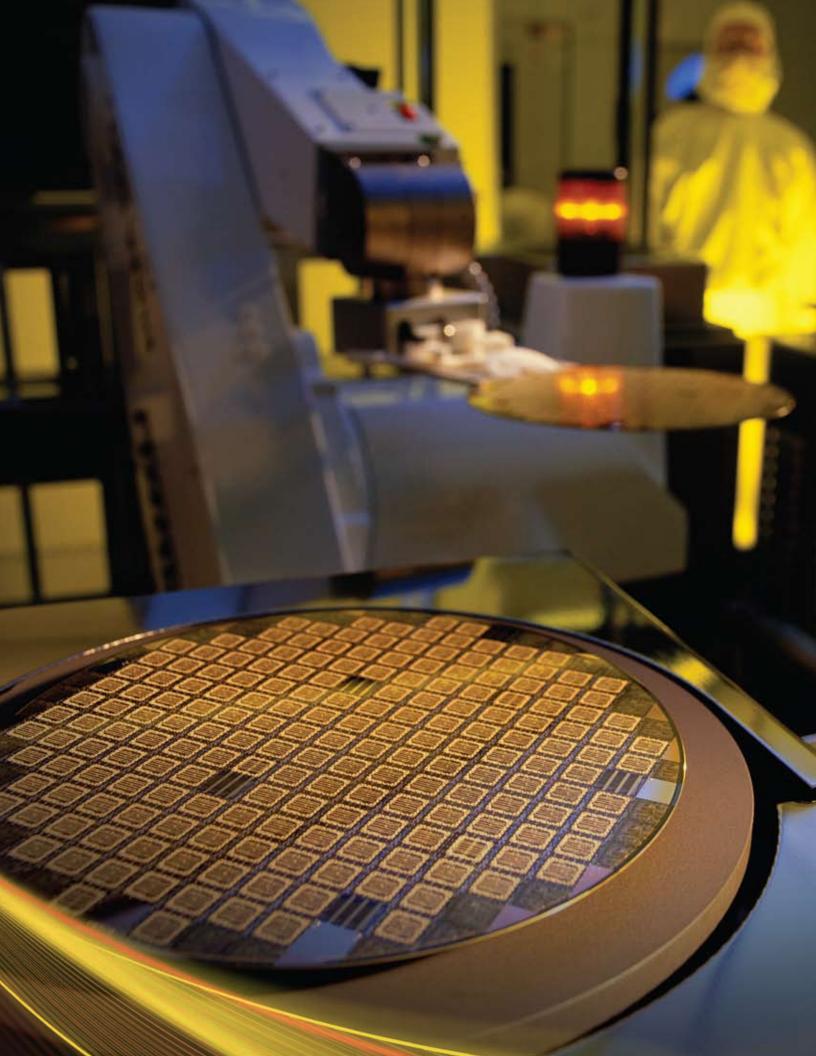
### Building better machines, faster

System Design Consultation Our resources and expertise are brought to bear from the beginning – with objectives, scope and timelines – ensuring that business, project and process needs are served, profitably. Our system-design consulting services are unparalleled, offering optimized machine concept, mechanical and electrical designs, optimized machine network topology and much more. System Test & Qualification After a machine concept has been created, testing and evaluating components and sub-systems begins. Our assets are vital, offering an accelerated path to prototype system setup and test results. Our services include assembly and startup of components and sub-systems, development of test fixtures and programs, performance analysis of sub-systems, software tools and training for your team.

**Specialized Training** To continue to develop and support machines throughout the lifecycle, we ensure that machine builders stay as current as possible in knowledge and skill-sets by providing focused training for products and tools and technologies to ensure client proficiency at all times. Our training includes the following courses: MEI Boot Camp, Trouble-shooting Techniques, MPI Programmer's Course, MPX Programmer's Course, Advanced Servo Tuning and Motion Analysis using Bode Tool, and Develop Advanced Control Algorithms with MechaWare<sup>™</sup>.

#### **Field Service**

Our service offerings would be incomplete without timely, expert field service – where your machines perform. This includes on-site application engineering support at the manufacturer's or the end-user's facility, and encompasses system data collection and analysis and corrective-action recommendation.



# Tools of innovation

MEI brings an innovative and powerful suite of software, hardware and networking options to every project. We incorporate software that is open, flexible and extendable, and hardware that provides the highest performance and lowest latency command-to-motion.

#### Networking

As the industry's leading open-architecture motion control networking solution, SynqNet creates seamless integration among controls, drives and I/O while providing system modularity, remote diagnostics, software field upgrade, multi-vendor support and fault-tolerant safety. Designed to simplify machine development and manufacturing while lowering the cost of in-field support and upgrading, SynqNet is ideal for demanding motion control applications and embodies our principles of full collaboration and high performance standards.

#### Hardware

MEI C/BASIC Programmable Controls offer machine builders high performance SynqNet motion control in both PC-based and stand-alone formats with support for servo and stepper drives. With available SynqNet I/O and a comprehensive package of programming libraries and software tools, our C/BASIC programmable controls provide machine builders with ultimate flexibility in high-performance motion control. Available in industry standard PCI and PCI form factors.

#### Software

To enable demanding performance applications, MEI offers the Motion Programming Interface (MPI) object-oriented C/C++ API – a flexible, powerful machine-development software for tackling tough motion problems. New programmers may also choose to use the MPX higher-level functions with Microsoft Visual Basic, and experts may utilize MPI objects. Application development and debugging is accomplished with standard tools, like Microsoft Visual Studio<sup>®</sup>.

#### MechaWare

MechaWare 3.0 is the industry's only mechatronic "toolkit" and enables software and mechanical engineers to work together to design, test and modify custom motion algorithms. As a result, design cycles are significantly reduced, and superior motion system performance and speed to market are achieved at a fraction of the time and cost of conventional methods.

# Agents of innovation bring true collaboration to the process of control design

Speed to market can be the difference between success and failure in many technology-intensive industries. It starts with a fully optimized, integrated, high-performance control system – and that's where we come in.

Our team of experts works with you to create, improve and troubleshoot your control systems at any stage – from conception to production floor. The key to our shared success is a long-term, collaborative process we have developed to ensure a full understanding of your technological and business imperatives, to maximize integration with your current systems and to provide flexibility for growth.

High-performance motion engineers face daunting challenges today and are responsible for making huge advances in throughput, reliability, energy savings, product tolerances and more. Our experts can develop the entire control system for you, train you on our platform and let your experts do the work, or any combination of the two. Collaboration is the key, and our agents of innovation are the formula for success. We are an extension of your

engineering department, thinking in terms of your progress. We offer the industry's leading open-network motion control platform. We offer unparalled expertise to solve the toughest control-design problems. We identify your problem, solve it, and help you bring your machine to market faster. We are Motion Engineering.

We are agents of innovation.

#### USA

#### **Corporate Office**

Santa Barbara, CA 33 S. La Patera Lane Santa Barbara, CA 93117 Tel: +1.805.681.3300 Toll Free: +1.800.449.0227 Fax: +1.805.681.3311 Email: info@motioneng.com Website: www.motioneng.com

#### **Technical Support Office**

Sunnyvale, CA 550 East Weddell Drive, Suite 5 Sunnyvale, CA 94089 Tel: +1.408.747.0496 Fax: +1.408.747.0498 Email: support@motioneng.com Website: www.support.motioneng.com

#### JAPAN

Sales Office Tokyo, Japan 2F, TOKYU REIT Hatchobori Bldg. 2-7-1 Hatchobori Chuo-ku Tokyo, 104-0032 Japan Tel: +81.3.6222.1051 Fax: +81.3.6222.1055 Email: info@danahermotion.co.jp

#### KOREA Sales Office

Kyunggi-do, Korea Western Tower II, Room No. 715 867 Janghang-Dong Ilsan Dong-Gu Koyang-City, Kyungki-Do Korea Tel: +82.31.931.5170 Fax: +82.31.931.5176 Email: koreainfo@motioneng.com

#### CHINA

Sales Office Beijing, China Rm. 2205, Scitech Tower 22 Jianguomen wai Street Beijing, China, 100004 Tel: +86.10.6515.0260 Fax: +86.10.6515.0263 Email: chinainfo@motioneng.com

#### EUROPE

#### Sales Office

Bristol, United Kingdom 69 South Parade, Oakfield Road Bristol, BS8 2BB United Kingdom Tel: +44.117.3179.334 Fax: +44.117.3179.303 Email: europeinfo@motioneng.com



Helping vou build a better machine, faster

#### **Motion Engineering Performance Services**

Motion Engineering, Inc. (MEI), a Danaher Motion company, is an extensive team of motion control engineering experts who help customers worldwide build better machines, faster. Since our founding in 1987, we have collaborated with the world's most demanding machine builders to help them achieve their toughest design, optimization and cost goals. Accordingly, MEI has set the standard for high performance machine control development around the world, and continues to lead the industry with a dedicated team of industry experts. At MEI, our mission is to help you build a better machine, faster, and our agents of innovation will help you get there.