



300 Monterey Dunes Way
Castoville, California 95012
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www.virtualsynergyinc.com

VSI Core Team

Brent Anderson is Vice President of Sales and Supply Chain Management. Brent has over 25 years of sales and operations experience ranging from Materials Manager and Program Manager to President of a \$100MM Contract Manufacturing Operation. Brent has had assignments working with clients in the computer industry, and medical device manufacturing. He has extensive industrial equipment experience in the semiconductor industry, airport security, and hot melt dispensing industries. Brent is a Sales Manager who provides VSI clients core strengths in such diverse fields as business development and expansion, strategic alliances, and offshore product transitions. He supports clients with remarkable supply chain, and project management advantages. He provides optimum global supplier selection, supplier metrics, least cost supply solutions, inventory management programs, and he insures regulatory agency compliance. Brent holds a Bachelors degree in Operations Management and an MBA from San Francisco State University. He has been certified as CPIM (certified practitioner of inventory management) by APICS (American Production and Inventory Control Society) as well as CPM (Certified Purchasing Manager) by NAPM (National Association of Purchasing Managers).

David F. Bullock is Vice President, and Founding member of Virtual Synergy. He is the Lead engineer and Project Manager for VSI Mechanical and Systems Engineering efforts. He has fifteen years industrial equipment and marine defense systems development experience. Recently, he was Project leader for development of the \$500MM hot melt industry's first successful, and complete, new design implementation in ten years. Dave coordinated the development between separate divisions, functions, and geographies with the aid of SolidWorks and CosmosWorks. He is proficient at applying these design and communication tools to shorten development time and coordinate remote design team activities.

Wayne A. Calco is an Industrial Designer with fourteen years experience. He is an international award-winning designer with both best selling mass-market products and successful industrial designs. The majority of us benefit from his work each day via designs ranging from popular toys to various industrial products. One of his industrial product designs developed with the VSI team applies adhesives to various products we all use daily. A wide range of companies and industries including Disney, Sega, Hasbro, Hewlett-Packard and Nordson has applied his creative design expertise. VSI integrates Wayne's Industrial Design and his essential Human Factors considerations into the fabric of our developmental process.

Dale T. Christensen, Virtual Synergy founder and President. Dale has twenty-five years experience in operations with positions ranging from Product Line Manger to \$100MM Contract Manufacturing Executive Manager, Engineering Executive Manager, and CM company President. His career of successful design development management experience ranges from industrial control systems and industrial equipment, to on-line shop process controls, with integrated B2B e-commerce. He has been recognized through publication as an innovator and one of industries first "Lean Manufacturing" practitioners. Dale dedicates his unique innovative skills and management orientation to the VSI client product development process.

Rod Davidson is a mechanical engineer with over twenty-five years experience in design, analysis, development, manufacturing, and troubleshooting. He significantly broadens VSI's equipment design and project management capability. His work has involved a wide range of products, machinery, instruments, and equipment including aerospace and earth-based antennas, road construction equipment, semiconductor and disk drive manufacturing equipment, centrifugal pumps, wind tunnel equipment, lifting and positioning equipment, medical products, pharmaceutical machinery, and industrial x-ray equipment. His electron-

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ics packaging experience, ranging from chip level to rack mounted systems, makes him an ideal complement to VSI's electronics development team. His work has resulted in two U.S. patents and one pending. Previous employers or clients include Adac Laboratories, Applied Materials, Beckman Instruments, Chiron, FMC, Hewlett-Packard, IDEO Product Development, JDS Uniphase, LifeScan, Nanometrics, NASA Ames Research Center, Novellus, Silicon Valley Group, Tegal, United States Geological Survey, Varian, and Watkins-Johnson. He received a BSME with honors from the University of Houston and an MSME from Stanford University. He is a member of the American Society of Mechanical Engineers (ASME) and the Professional and Technical Consultants Association (PATCA) and is a Registered Professional Engineer in California.

Dr. John L. Dunec is a senior ME with over 20 years experience in product development, engineering analysis and product manufacturing. His product design experience includes a new slot machine for Vegas, rack-mount telecommunications systems, inkjet and electrostatic printers, numerous biotech and MEMs devices, and an air-pollution control device for diesel trucks. He is a proficient mechanical designer with ProEngineer and SolidWorks. Also grounded in manufacturing and process control, John spent 10 years at IBM, debugging tooling, setting up and running pilot lines, and optimizing design tolerances and manufacturing processes. He has designed large spinner tooling for 3M and has been responsible for the pilot line tooling and fixturing for Xerox and Xerox PARC in their advanced printer team. A skilled engineering analyst, John has a Ph.D. from Stanford in Aerospace Engineering and many years experience with a variety of FEA and CFD analysis tools including FEMLAB, MATLAB, Ansys, ProMechanica, CFDdesign, and others. He has consulted on a wide array of problems over the years in heat transfer, chemical diffusion, fluid flow, microfluidics, structural analysis, electrostatics and MEMs. He consults and teaches multi-physics FEA analysis to engineers and researchers across the country.

Armondo Franco manages VSI's PCB design requirements. He is expert in taking complex PCB requirements and designing them to meet manufacturability constraints; Design for Manufacturability (DFM). This is one of the most critical criteria to insure that VSI clients receive manufacturable, reliable, lowest cost electronic subsystems. Armando has twenty years experience with high-speed digital and complex analog designs. This includes four years mastering design and EMI requirements for Motorola Compact PCI products. His successes include Cisco, Lucent, and Force communication products. He is proficient in the leading Mentor Graphics development platforms.

Richard M. Haney is a VSI Vice President. He is a BSEE with over thirty years of development experience covering the range of engineering disciplines, from the bench to executive management, dealing with products covering missile defense, to consumer, medical electronics, and industrial applications. Richard's extensive Manufacturing Engineering abilities, coupled with a comprehensive understanding of all engineering disciplines, complement the VSI development team with design for manufacturability (DFM) and design for test (DFT) requirements. He defines the manufacturing process, the QA strategy, and QC processes. He coordinates and manages all aspects of the product verification, validation, and production start processes with emphases on cost and process controls. In addition, his government certification expertise covers all of VSI's pertinent regulatory agency requirements and coordination including FDA, UL, CSA, CE, FCC, etc.

Mark W. Heath II is VSI's controller. Mark provides project budgetary guidance and tracking. He provides client operational financial management. Mark is the CFO when VSI engages as the client's operational and manufacturing managers. He can provide complete financial management services or offer specific consultation as required. Mark has 20 years financial management and controller experience with start-up and large manufacturing companies. He is particularly capable at establishing financial management supporting infrastructure. He is the perfect financial resource for the young OEM.



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Paul L. Howard is a Product Design Engineer with over 20 years experience in bringing products from concept through manufacturing release. Paul's expertise lies in his ability to create product solutions which seamlessly incorporate human factors and industrial design considerations with sound mechanical engineering and detailed attention to manufacturing. Complementing this integrated engineering approach, Paul possesses highly developed project management skills, which have served companies such as: Hewlett-Packard, Intel, Nike, IVAC, Lifescan, Medtronic, Kwikset and TiVo. VSI leverages Paul's diverse background to ensure that our client companies design goals are achieved with both elegance and efficiency.

Roger L. Kane is a BSEE with an MBA and over twenty-five years engineering and management experience leading cross-functional teams in the design and delivery of cutting edge products. Roger has directed engineering departments at organizations ranging from startups to \$15 billion worldwide conglomerates. He led the development and market introduction of the following: portable kidney dialysis machines; anesthesia delivery, monitoring and recording systems; critical care ventilators; surgical robotics and medical imaging; high-density dispensing systems for BioChip production in genetic/proteome research and drug discovery; and robotic systems for cryogenic storage of human stem cells. All encompass the stringent developmental process regimen mandatory for medical systems. Roger brings large development team management to VSI. He is accomplished in designing the hardware and software of embedded command, control and display systems. He brings to VSI clients FDA, TUV, and ISO compliance knowledge.

Ken Kearney provides VSI clients essential sales and marketing support and expertise. He has twenty-five years experience in the electronics industry. Ken has participated in a breadth of assignments that include seven years at AMD, 10 years with several of the largest manufacturers representatives in the bay area, and

co-founder of International Technology Associates, the independent sales and marketing firm for Nokia Monitors in North America. In addition, he has served as Executive V.P. of Sales and Marketing in the software firm Nexion, Inc and consulted with a range of clients from electronic component manufacturers to a water technology company.

Jef Loeb is an award winning advertising executive, creative director, and writer. Jef and Ken have collaborated in serving as an outsourced marketing department to an electronic components manufacturer receiving multiple industry awards for the branding and advertising campaign they developed. Jef has written numerous articles for industry publications and earned awards from One Show, Graphis, Clio, ANDY, London International Advertising Show, and a prestigious Gold Lion at the 2000 Cannes International Advertising Festival for a television campaign concept. Jef has served as writer/creative director for campaigns at Kaiser Permanente, Yale New Haven Health Group, Electronic Arts video games, Oracle, Autodesk, and Seven Seas Cruise Line as a partner in Katsin/Loeb Advertising. Jef and Ken form a powerful team supporting all VSI client sales and marketing requirements.

Dr. Deborah J. Mayhew is an internationally recognized author, teacher, speaker and consultant on software user interface design and usability engineering. Her Ph.D. is in Cognitive Psychology from Tufts University. She provides VSI a variety of services related to usability engineering. Since 1986 she has served clients including IBM, AT&T, John Hancock Insurance Co., GE, Hewlett-Packard, Ford Motor Co., GTE, American Express, Apple, American Airlines, Texas Instruments, NASA, the National Cancer Institute, The New York City Police Department, Computer Sciences Corp. (CSC), Cisco Systems, the IRS and many others. Over her 20 years in the field of usability engineering, Dr. Mayhew has consulted to companies in many diverse industries on the design of products based on a wide range of technology platforms including mainframe computers with "dumb terminals", GUIs, medical technology, manu-

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facturing equipment, Web sites, and applications.

Michael K. Miu is VSI's Software Engineering team leader and Project Manager. He is a senior firmware engineer with over 12 years experience in the embedded software industry, bridging the gap between electrical and software engineering. Michael has demonstrated success designing and developing firmware ranging from complex consumer electronics applications, to stringent medical device controllers. All phases of the software development life cycle are covered including specification, analysis, design, implementation, integration, and test. His capabilities cover system architecture, structured analysis and design, microcontrollers and DSPs, cross-compilers, assembly language, RTOSs, device drivers, diagnostics, and logic analyzers. Michael also has experience with the process and documentation necessary for developing medical device software under FDA guidelines. This extensive background, from low-level software to high-level applications, spanning requirements gathering through final test, ensures that VSI customers get reliable maintainable software, meeting and exceeding their requirements.

Kimberly A. Stuhler is the VSI Director of New Product Introduction (NPI) and Supply Chain Manager. She is a supply chain manager experienced in creating mutually profitable, innovative supply solutions for industry. She is a highly qualified database and ERP/MRP systems expert. She has extensive experience supporting NPI sourcing requirements. She brings fifteen years of high-velocity contract manufacturing and supply chain management background.

Richard A. Washburn, Electrical Engineering team leader and Project Manager. Al is a senior EE with twenty years hands-on industrial controls, data acquisition, and test measurement design expertise. His industrial controls development experience includes multi-channel temperature controllers, high-speed solenoid drivers, multi-channel timers, Atomic Layer Deposition gas sequence controls design, and various stepper motor positioning devices. His defense data acquisition

and measurement systems development background includes ICBM launch control subsystems. Developed load, pressure, power, and mass airflow measurement and instrumentation designs for ICBM, cruise missile, and "Starwars" Railgun system testing. He has intimate knowledge with Intel and Motorola processor families. He is fluent in generation of C and assembly language code for embedded devices, and he is a proficient user of P-CAD, OrCAD, and MS Project. Al is experienced in NEC, UL, CSA, CE, and FCC design guidelines and all certification processes.

Materials & Tooling Expertise

VSI has working relationships with individuals, firms, and production sites, each, specializing in casting, molds, and tooling for materials ranging from metals and plastics to composites. They have design software to characterize the strength and weight of components and the engineering expertise to design the component, test the component and create the appropriate tooling. They have experience in such high-end applications as solar powered vehicles, racing bicycle components, and Formula-One racing components. The applied materials include exotic metals, Kevlar, Carbon fiber, FRP, Aramid fiber, Composite F1, Embedded fibers & composites, etc.

Systems Integration & Manufacturing

A VSI core competence is manufacturing systems integration, production process, component acquisition, and supply chain management. VSI has established working relationships with Electronic Contract Manufacturers, Machine Shops, Sheet Metal Fabricators, and Systems Integrators. These organizations are experienced with complex, mixed technology printed circuit assemblies, medical instrument assembly, large industrial equipment assembly, food processing machine manufacturing, and general aviation equipment production. They have the process controls enabling them to secure FDA and ISO9001 certifications.