

Thomas H. Bishop

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Medical-Device Engineering Leader

Summary of Qualifications

Strong, progressive record (30+ years) leading R&D of innovative products & systems including

- Non-invasive Continuous Glucose Monitor (CGM) for use by Diabetics and healthy consumers.
- Organ Care System that keeps human hearts and lungs functioning outside body (transplants)
- ICU patient monitors (3 generations)

Executive, department, and project management:

- Unique blend of interpersonal management skills and in depth technical expertise
- Engineering department management with budgets exceeding \$7M
- Recruited 5 major engineering development teams
- Designed FDA/ISO compliant development processes for small and large companies

Hands on development of cutting edge technology including:

- Designed the software architecture for complex real-time medical systems
- Multiple patents for innovative product concepts (see below for details)

Experience

- **VP Operations and Product Development** 2014-2016
Echo Therapeutics, Inc (Littleton, MA)
 - Managed all research and development activities for this 45 person company, making a non-invasive Continuous Glucose Monitoring system for diabetics
 - Top executive in charge of the Massachusetts offices.
 - Ran multi-disciplinary program management and coordinated team of project managers.
 - Implemented a de-centralized project management process that empowered engineering teams and dramatically improved both productivity and effectiveness.
 - Presented corporate plans/strategies to potential investors as a part of fund raising activities.
 - Prepared product roadmaps, development plans and corporate budgets
 - Met frequently with the Board of Directors to present status and discuss strategic issues
 - Held the organization together thru several rounds of financial crisis's
 - Implemented new methodology for making critical decisions based on objective test data
- **Principal Consultant** 2013-Present
Bishop Medtech Consultants, (Danvers, MA)
 - Consulted with startup medical device firms to help with development issues.
 - Performed prior-art discovery for large NY law firm on a patent infringement lawsuit.
- **Senior Director, Control Systems** 2012
iWalk, Inc., (Bedford, MA)
 - Established effective project management methodology complying with FDA guidelines.
 - Released robotic ankle-prosthetics firmware, smartphone app & lithium-ion battery pack.

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- **VP Advanced Development / VP Engineering / Software Director** 2004–2012
TransMedics, Inc. (Andover, MA)
 - **Organ Care System (Lung)**. Led the development an electro-mechanical, software-driven console and disposable perfusion module used to maintain a breathing human lung , outside the body. Transferred device to manufacturing and released for worldwide distribution.
 - **Organ Care System (Heart)**. Managed a company-wide program to develop and release the world’s first warm blood Organ Preservation System. Led the system integration and V&V effort for software, hardware and mechanicals. Released for worldwide distribution.
 - **Embedded Control Software**. Defined re-usable software architecture. Defined system functional breakdown and inter-processor communications protocols. Managed outsourcing partners. Hired in-house team and led development, integration, verification and validation.
 - **Perfusion Modules**. Led development of 2 new heart perfusion modules and an optimized lung module. Defined programs goals; drove programs from inception to product release.
 - **Rapid Prototyping Process**. Developed a rapid-prototyping R&D methodology. Built a functioning prototype which supporting a breathing porcine lung within 6 months.
- **Director of Software Engineering** 1999–2004
Quarry Technologies (Burlington, MA)
 - Delivered software releases for high-speed Internet WAN edge-routers that enabled sales of 25 switches, for more than \$4 million in revenue
 - Recruited and managed 46-person software development organization and outsourced several appropriate projects to offshore development firms.
 - Managed complex software integration and system verification activities.
 - Established development process resulting in dramatic improvement of delivered quality
- **Chief Engineer, Software Development** 1997-1999
Analogic Corporation (Wakefield, MA)
 - Managed hardware, software, and mechanical engineers developing low-cost patient monitors, enabling shipment of devices valued at \$13M annually.
 - Made customer presentations on project status and feature/schedule tradeoffs.
 - Designed and implemented key software modules.
 - Recruited staff and managed software development activities to insure on-time delivery.
- **Section Manager, Manager of Software Engineering** 1987-1996
Siemens Medical Systems, (Danvers, MA)
 - Led multi-disciplinary program developing new flagship patient monitor (SC 9000), resulting in \$50+M annual revenue.
 - Managed development of revolutionary software architecture dramatically reducing time to market for patient monitoring products (has since been ported to 5 other products).
 - Wrote a comprehensive system integration plan and used it to drive product development
 - Recruited, organized, and managed software development team with 30+ engineers.
 - Recruited 14-person team and managed sw development for 3 patient monitors (\$700).
 - Delivered software on time, with very high quality (top honors in Xerox-funded survey).

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Patents

- 6,221,012: Transportable modular patient monitor with data acquisition modules
- 5,640,953: Portable patient monitor reconfiguration system
- 5,375,604: Transportable modular patient monitor
- 7,651,835: Method of timing pulsatile flow of normo-thermic perfusate to the heart
- 8,420,380: Systems and methods for ex-vivo lung care

Education

Computer Science and Economics
B.A., Denison University (Granville, OH) 1979

Links

- Resume (C.V.) [https://www.dropbox.com/s/9g5ehkitqpaijww/Tom Bishop -Resume, 2016-2.pdf?dl=0](https://www.dropbox.com/s/9g5ehkitqpaijww/Tom+Bishop+-Resume,+2016-2.pdf?dl=0)
- (Products) [https://www.dropbox.com/s/t93t2vvpeo8dg1s/Tom Bishop - Appendix , Rev 3.pdf?dl=0](https://www.dropbox.com/s/t93t2vvpeo8dg1s/Tom+Bishop+-Appendix,+Rev+3.pdf?dl=0)
- Videos (OCS Heart) <http://www.youtube.com/watch?v=Fwd32Xa3uwc>
- (OCS-Lung) <http://www.youtube.com/watch?v=pzSIKje7Lg0>