Bruce J. Zignego

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Summary

Seasoned R&D Vice President with over 30 years experience in high tech companies. Background includes a track record of delivering Best in Class reliability and performance on complex systems. Creative business leader with extensive and broad experience ranging from disk drives, scanners, printers and copiers to Bio Science DNA detectors and central lab photofinishing solutions.

Attributes

- R&D vice president established and managed productive R&D labs in Taiwan and China and USA, and manufacturing engineers in China of over 500 engineers.
- Led complex electro-mechanical product development lab with 170 engineers and a $40M yearly budget.
- Entrepreneurial leader of numerous business startups within HP including desktop scanners, network scanners, business inkjet multi-function printers (MFP), inkjet department copiers, DNA readers and writers, and central lab photofinishing liquid electro-photography (LEP) programs.
- Managed team of 700 people for 24x7 production of consumer inkjet printers.
- Proven track record of consistently delivering on objectives while balancing product development parameters of schedule, functionality and cost.
- Outstanding skills in building cohesive teams through motivational and leadership skills.

- International Relations
- Technical & Business Judgment
- Customer Relationships
- Negotiations

Experience

Zigco LLC

Bozeman, Montana
President **April 2010 - Present**
Product Development and Design consulting

- Zigco is active in small business consulting specializing in product development, business management and operational excellence.

Montana State University

Mechanical & Industrial Engineering, Bozeman, Montana
Adjunct Professor **August 2010 - Present**

- Instructor for EGEN 425, Technology Entrepreneurship, A senior level course focused on introducing the student to the principles of entrepreneurship and to give them the background appropriate to start their own business. Received "excellent" ratings on all feedback criteria for Fall 2010 class evaluation.
- Instructor for EGEN 325, Engineering Economics. A junior level course focused on developing an understanding of the time value of money, payback period and making sound engineering decisions based on economics.
- Instructor for EIND 373, Production Inventory and Cost Analysis. A junior level course focused on a survey of accounting for non-accounting majors.

- Instructor for MSEM 502, Leading the Technical Enterprise. A graduate level course focused on leadership and management of a technical enterprise. The course topics include, project management, leadership, negotiations, supply chain management, six sigma and lean methodologies and strategy development.
- Team Adviser for Engineering 310, Introduction to Engineering Design. A junior level course focused on cross discipline engineering design.

Foxconn Corporation

Inkjet Printing and Product Division ; San Diego, Ca.
Vice President Product Development **September 2009 – February 2010**
Reports to the senior vice president of IPPD. The global leader of IPPD's R&D department with presence in all geographies that operates R&D (Taiwan, China, Singapore, Vancouver, WA. and San Diego, Ca.)

- Developed and managed Taiwan and China R&D laboratories as well as a customer facing teams in Singapore and West Coast.
- Worked directly with the customer, Hewlett Packard in the negotiation and establishment of the long term product roadmap.
- Critical member of the IPPD staff in guiding the business objectives of revenue and profit.
- Accepted responsibility for all manufacturing engineering in the division. Re-organized the team into procurement, product and process engineering focusing on part equal spec, spec equal design and build to spec.

Hewlett Packard Corporation

Digital Printing Technologies / Light Production Systems; Vancouver, Wa.
R&D Director, Platform & Components Lab **October 2005 – June 2009**
Lead the platform lab development team, responsible for high performance inkjet marking engines to be used in multiple markets: Office, photo, and light production. Effectively managed key competency assets of HP; namely writing systems development, mechanical design, analog & digital electronics, firmware development, system architecture, design & integration, technology investments & advancements, intellectual property, and platform development.

- Delivered initial product with Best in Class reliability and performance, demonstrated in internal testing and verified by 9 months of actual field failure data. Verified by Buyers Laboratory Inc. with their "Certificate of Reliability".
- Delivered multiple presentations outlining strategic direction of HP enterprise copier business to key customers involved as HP enterprise advisory council as well as key channel partners worldwide.
- Led the R&D team that delivered breakthrough Edgeline technology to the market. This team had over 1500 invention disclosures over the program development timeframe.
- Developed follow on program on budget, on schedule while increasing performance of first engine by 40-133% and reducing material cost by 40%.
- As a platform lab delivered necessary test units, leveraged designs and technical support to ensure successful leverage of our marking engine to adjacent markets such as photo mini lab.

Digital Printing Technologies; Vancouver, Wa.
R&D Section Manager, Product Lab **June 2003 – October 2005**
Responsible for the product lab of a 50 page per minute color general office MFP.

- Built a very strong R&D team growing it from 22 people to 55 within a year. Simultaneously, led the consolidation of the development from across 5 International sites to 3 U.S. sites, reducing the resource requirement from over 110 people to 55, while staying on schedule.
- Owned the development of all paper handling equipment required for the copier program.
- Delivered the first copy through the entire product (simulated control panel through copy board to scanner to copy board through the formatter to the print engine). This was completed 3 months ahead of schedule with an understaffed development team.

Digital Printing Technologies; Vancouver, Wa.

R&D Manager, Wholesale Central Lab Photofinishing Nov. 2001 – June 2003

Responsible for the development of the photofinishing solution transforming the HP Indigo commercial digital press into a photo quality printer.

- Hardware team developed the finisher for the photo solution which functionality included: Lamination, texturing, slitting and chopping of the photo paper. The team also delivered other key components of the solution including an XY cutter, a re-winder and various solution accessories through OEM relationships.
- Completed design to working prototypes ready for Beta trial with customers. Demonstrated strong collaboration skills through work with HP Labs and Indigo division and with Worldwide photofinishing customers. Developed demonstrations of the technology and the solution for photofinishing tradeshows, PMA in the U.S. and Photo kina in Europe.
- Learned photofinishing market culminating in speaking on LEP technology at a photographic quality digital printing conference.

Shared Printing Organization; Vancouver, WA.

R&D Manager, Inkjet MFP May 2000 – November 2001

Responsible for the development of inkjet MFP's within HP.

- Led the MFP team to a clear definition of the first program. Progressed from concept to tooled part prototypes within 11 months.

Inkjet Publishing Division; Vancouver, Wa.

R&D Section Manager July 1998- May 2000

Responsible for R&D teams in platform lab, delivered on high end inkjet product development

- Led a major inkjet program as the overall program manager. This was a cross functional development with over 200 engineers. The program was a development utilizing inkjet into the short run publishing market.
- Managed all EE's in the R&D lab; analog and digital including the development of a 650K gate ASIC, not including the SRAM and the microprocessor, the largest single ASIC developed within HP Imaging and Printing Group at that time.

Vancouver Printer Division; Vancouver, Wa.

Production Manager July 1996 – July 1998

Led the High End Inkjet Platform for manufacturing, and helped deliver new products that met manufacturability goals and helped drive the business strategy. The production operation was a 24X7operation that produced 200,000 printers per month with 700 DL and 80 IDL.

- Met or exceeded the build plan throughout the year with the exception of 1 month (97% that month).
- Facilitated the transition to a design center by consolidating all production to Singapore.

Bioscience Products; Palo Alto, Ca.

Manufacturing Manager February 1995 – July 1996

Responsible for all aspects of manufacturing, product support and quality for Bioscience Products (a startup within Hewlett Packard).

- Wrote the manufacturing plan for Bioscience which provided the framework for the implementation of manufacturing.
- Built the manufacturing, product support and quality team from the ground up focusing on project and business objectives.
- Participated in functional staff discussions regarding the strategy and business direction for Bioscience in Hewlett Packard.

Bergamo Hardcopy Division; Bergamo, Italy

R&D Project Manager June 1992 - February 1995

Part of a management team responsible for the startup of the R&D function in Bergamo Italy. For a network scanner program, my group was responsible for all hardware development, quality and OEM management of Canon, the supplier of the scanner and ADF (automatic document feeder) for the system. The program was a fast track (concepts to Intro < 1 yr) network scanner project.

-As a foreign service employee I had three objectives: Manage the project just as in the U.S., train the Italians to manage a project when I left, and teach the HP way. I successfully completed all three objectives.

Greeley Hardcopy Division; Greeley, Colorado

Manufacturing Engineering Manager **December 1988 - June 1992**

Responsible for manufacturing engineering (materials, process, production) for Greeley Hardcopy Division; included direct management of 17 eng/techs.

- Developed world class production line and automated assembly tools for color optical scanner. This product was the world market leader in desktop scanners and was built in Greeley, Co.
- Managed technical relationships with various vendors including Sony, Phillips, Canon and AMC for various components and OEM products like magneto-optic drive and media, CD-ROM drive and optical scanners.

Product Marketing Engineer **May 1988 - December 1988**

Responsible for business planning, investigated connectivity via both direct and network connect for optical auto-changers and developed independent software vendor program for optical auto-changers.

- Wrote 1989 Business Plan for Greeley Storage Division and completed target setting for GSD quota.
- Completed monthly divisional forecasts which required alignment across international product divisions.
- Wrote a white paper on networked solutions for optical auto-changers.

Materials Engineer **January 1985 - May 1988**

Responsible for 3.5" Nighthawk disk drive mechanical parts, and initial scanner materials engineer. Components included magnetic heads, magnetic disks, optics, lamps, stepper motors, machined parts, plastic parts, etc.

Storage Technology Corporation; Louisville, Co.

Staff Engineer, Head Mechanical Group **May 1982 - January 1985**

Responsible for research and development of thin film recording heads. This includes work with vibration analysis, flight dynamics and laboratory experimentation.

Sperry Flight Systems Corporation; Phoenix, Arizona

Project Engineer, Advanced Technology **July 1979 - May 1982**

Responsible for the development and product engineering of a ruggedized airborne 4-inch rigid disc memory including work on design recording heads, design component test fixtures and sourcing thin film plated disks.

Education

B.S. Mechanical Engineering, Montana State University, 1979 Member Pi Tau Sigma, Honors Graduate
Various post graduate courses ranging from Advanced Control Systems to Cellular Neurophysiology
Negotiation Seminar for Senior Executives - Harvard Law School
Finance and Accounting for Non-Finance Executives – Stanford Business School

Volunteer Work

President Sigma Phi Epsilon AVC (Alumni Volunteer Corporation). The AVC is a non-profit alumni entity that supports and mentors the Sigma Phi Epsilon undergraduate fraternity at Montana State University.