

ALLEN HOLLISTER

Leadership Position

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PROFESSIONAL SUMMARY

Innovative, dynamic leader with over 15 years of experience in senior engineering management positions. Recruited by four companies to revitalize engineering departments and resolve complex engineering management issues. Has led multidisciplinary teams of as many as 45 professionals at multiple locations and administered budgets of \$4.5M.

Track record showcases proven abilities in executing and developing strategic plans, forecasting technology, creating new engineering departments, expanding existing ones, and increasing engineering efficacy through process improvement. Adept in identifying, hiring, training, and motivating quality personnel. Maintains rapport with executive-level professionals and is capable of communicating technical details to engineers as well as complex issues to non-technical audiences.

Recognized as an expert in systems and hardware design. Knowledge encompasses high-cost, low-volume state-of-the-art products as well as low-cost, high-volume consumer items. Background includes the design of high-frequency wide bandwidth RF analog amplifiers, IEEE 802.11, Bluetooth, GPS, MPEG video, RFID, and electronic test instrumentation.

SELECTED ACCOMPLISHMENTS

- Published textbook *Wideband Amplifier Design*. Published by SciTech Publishing Inc
- Applied for 4 patents in the field of RFID in 2007 and 2 more patents in 2008 (One on a fireman rescue system using RFID and a second on using 802.11n to measure location of an object to within a few cm) These patents, along with 9 granted patents and others in the application process brings a total of 17 patents either granted or in process
- Became a “Besser Associate” and have been asked to teach seminars in the fields of Wideband Amplifiers and RFID
- Implemented innovative processes and techniques that facilitated the development of 12 major new products during five-year tenure at Plantronics. Slashed the average development time for new products by 50%.
- Developed a unique technology risk analysis system. This system does an up-front analysis of project risks and develops contingency plans early in the project. By doing this, schedule risk is dramatically reduced. This was one of the major reasons I was able to reduce time to market for Plantronics products by 50%.
- Developed an industry-leading Windows 95-based GUI controller as well as eight new hardware products over tenure, enabling NH Research to elevate its market share from 25% to 75%.
- Developed a modular architecture philosophy that enabled II Morrow to reuse significant amounts of engineering effort. In particular, because of this re-use philosophy; II-Morrow was able to develop a completely new GPS navigation system in three months by reusing the hardware and software developed for a previous Loran navigation system.
- Restored customer confidence at Wavetek by quickly identifying and resolving personnel, organizational, system, and process issues.
- Consistently reduced time to market for new products by as much as 60%.
- Responsible for creating a system design for precise location measurement; writing a paper on the subject and presenting it to a consulting customer. The effort involved a considerable amount of work in Mathematica and the design of a number of experimental circuits.
- Was one of four people that designed the VXI_{bus} backplane that required time jitter be held to under 10 ps. VXI_{bus} was a consortium of companies that created a standard system that allowed different companies instruments to talk with one another. I was elected Chairman of the consortium.
- Developed a state-of-the-art high speed digitizer instrument for Tektronix using flash technology.
- Did a complete design of a second high speed digitizer for Wavetek that included the design and development of high speed analog IC's

CAREER TRACK

PSI WIRELESS, **VP of Engineering**

2007-PRESENT

PSI is a consulting/small manufacturing company specializing in wireless solutions targeted at medical and tracking markets. PSI's primary competitors are internal engineering organizations. Companies hire us when they have insufficient or inadequate resource to do a particular project in a timely fashion. We are competitive because of our people. We bring unbelievable experience, intelligence, and creativity to any engineering problem. We always outperform internal groups in terms of schedule, product performance, cost, and creativity. One of our happier customers told us "We bring shock and awe to internal engineering organizations".

- I am responsible for managing the engineering and development of awarded projects along with the development of intellectual property (I've filed two patents this year for PSI) as well as hands-on design. I initially did this job as an independent consultant beginning in 2003, then joined full time in 2007.

IDENTIFI, **VP of Engineering**

2003-PRESENT

Identifi Inc. is a startup company specializing in very fast and accurate reading of RFID tags in a high density tag environment.

- I was the principal inventor of the companies IP that enables the reading of tags from tag fields in excess of 1000 tags at a rate equal to 90% or greater of the underlying RF link capability.

PSI and Identifi are closely related as the same people founded them.

CONSULTANT AND AUTHOR

2003-PRESENT

- Sole author of the textbook *Wideband Amplifier Design*, SciTech Publishing Inc, 2007
- Asked by Besser Associates to develop seminars in the area of Wideband Amplifiers and in RFID (RF hardware aspects and protocol issues)
- Consulted for a variety of companies including PSI Wireless

PLANTRONICS, **Director of Engineering/Principal Systems Engineer**

1998-2003

Plantronics is the premier supplier of headsets in the world.

I was recruited to ramp up and turn around the electrical/software engineering group to add the capability to design wireless headset products while reducing new software/hardware product development time. Prepared strategic plans for emerging technologies, such as Bluetooth, 802.11, and VoIP.

- Organized and staffed the electrical engineering group, expanding it from 6 to 18, 8 of which were hired in the first year.
- Spearheaded the attainment of third-party technology, which led to the addition of two new products, a feat that would not have been possible otherwise.

SiCOM, **Director of Engineering**

1997-1998

SiCom was a start-up company specializing in satellite uplink modems (using 64QAM modulation).

I was brought on to establish, develop, organize, and manage a new product engineering and manufacturing group for the commercial market. Contributed as a member of the executive management team.

- Created and implemented all procedures and processes vital to expediting product development through manufacturing, including a complete engineering phase gate system.
- Designed, released, and shipped to customers a modulator and companion demodulator product in six months.

CAREER TRACK – AONTINUED

NH RESEARCH, Vice President of Engineering

1992-1997

NH Research specializes in power supply test instrumentation. These systems were designed to test everything from very small power supplies to complete 3-phase 440 volt supplies. The system provided AC and DC controllable sources as well as electronic loads and instrumentation to measure the resulting effects on the power supply under test.

I was hired to rebuild and transform a stagnant engineering department that had not successfully produced a new product in three years. Managed all aspects of engineering, including electrical, mechanical, software, and services. Participated in the executive planning committee.

- Shipped the first new product nine months after taking over, having identified weaknesses, taken action, and rebuilt the department.
- Ensured the efficient operation of the new product development system by establishing a phase system and other engineering processes. Implemented a modular design system that facilitated rapid development of new products via design reuse

II MORROW, Division Engineering Manager

1989-1992

II Morrow built Loran and later GPS navigation systems for aircraft navigation.

I was recruited to rebuild an undermanned engineering department. Directed electrical, mechanical, software, and services engineering functions. Served on a division-level general management team for strategic and tactical management. Established a complete phase gate management system, including checklists.

- Designed and released a Loran Nav product—in one year—that set industry records for project time, price, performance, and sales. Implemented a modular architecture system that facilitated the creation of a new GPS Nav product in less than three months.
- Restructured the engineering department, restoring it from a 12-person division decimated by transfers to a 45-person, competitive division, in one year.

WAVETEK, Engineering Manager/Principal Engineer

1986-1989

Wavetek was a supplier of state-of-the-art electronic test instruments.

I was brought on in recognition of exceptional technical capabilities for digitizer design; developed custom analog ICs for a high-speed digitizer. Tasked with revitalizing an underachieving engineering department.

- Led 16 engineers in developing five new instrument products.
- Selected to serve as the company's representative to the VXI_{bus} Consortium; later became Consortium Chair.

TEKTRONIX, Principal Engineer/Hardware Engineering Manager at Tektronix

1971-1986

I worked on a variety of projects mostly involving high speed amplifier designs. My last project was to manage the hardware engineering group and create the overall system architecture for a new concept called computer based instruments. These were a set of instruments (a high speed digitizer, ARB, pattern generator and a mainframe).

- Led 7 engineers in the development of this product
- This product went on to become part of the VXIbus international standard.

In the mid 1980's I worked a couple of years as an Assistant Professor of Engineering at Portland State University while on leave of absence from Tektronix. This was an attempt by Tektronix to upgrade engineering education in the Portland area.

ACADEMIC AND PROFESSIONAL CREDENTIALS

University of Nebraska: M.S., Electrical Engineering • B.S., Electrical Engineering

Institute of Electrical and Electronics Engineers (IEEE): Member • Voting Member of 802.11, 802.19

Federal Aviation Administration (FAA): Licensed Commercial Pilot with Instrument Rating

PUBLICATIONS AND PAPERS

Wideband Amplifier Design Published by SciTech Publishing Inc. 2007

The Theory and Practice of Digital Design

Practical PCB Layout for Low Noise

802.11 and VoIP

Many papers on staffing, communication, strategic outsourcing, scheduling, and risk management.

TECHNICAL EXPERTISE

Expert in Analog Design • 802.11 • 802.19 • 802.15 • Bluetooth • DECT • UWB • RFID

VoIP • IPv4 • Ethernet • TCP • UDP • OSI 7 Layer Model • Telephony Systems • Instrumentation

High-Speed Modems • GPS and Loran Navigation Systems • MPEG Video

Power Supply Design • Software Systems (C and Database) • DSP • A/D • Digitizers (Expert) • DAC

Embedded Firmware • RF • Microwave • Simulation Tools, including SPICE, Genesys and Mathematica of

which I am expert • Systems • Expert in RF Propagation Including Path Loss and Multipath • Tracking of

People and Things • Digital, Including State Machines for Control • IC Design • Wideband Amplifier Design

• Flash Converters • Precision Timing • High Speed PCB Design • High Speed Backplane Design • VME bus,

VXI bus • Microsoft Project, Excel, Word, PowerPoint • Teaching