

Joseph M. Schmalhorst

801 Sword Bridge Drive, Lewisville, TX 75056
Tel: 972 899-1330 / Cell: 972-757-2122 ▪ schmalhorst@worldnet.att.net
<http://www.webprofile.info/jschmalhorst/>

Senior Engineering Manager

Technology Development Management / Technical Program Management

Results-oriented engineering executive with 25+ years of experience in product design, program management, thin film and mechanical process, software development, and test engineering functions. Strong project management skills throughout product development lifecycle. Proven ability to generate revenue, control expenses, and manage an organization of 50+ scientists, engineers, and technicians. Expertise in developing high-tech thin film magnetic recording head technology, semiconductor devices, system integration and manufacturing processes. Hold four patents; member of IEEE.

Core Qualifications

- Program/Project Management
- Manufacturing Transfer
- Statistical Process Control (SPC)
- New Product Development
- Resource Management
- Data Analysis
- Six Sigma Management
- Cost/Budget Controls
- Customer Relations Management
- Continuous Process Improvement

Professional Experience

Storage Technology Corporation, Louisville, CO

1995 – 2005

\$2 billion company specializing in enterprise storage systems, software and services started in 1969 by four ex-IBM engineers. Company was recently purchased by Sun Microsystems.

Consulting Engineer / Manager (2000 – 2005)

Managed entire engineering organization with four direct and 50+ indirect reports. Directed product design, thin-film, mechanical, and test process development, manufacturing engineering support (offshore), and technical program management.

Accomplishments:

- Managed successful design, development, and release to manufacturing of seven recording head products over a period of five years, including internal Storage Technology and external OEM products.
- \$20 million saved per year by completing engineering transfer and offshore outsourcing of production to two manufacturing facilities in China.
- Patented a method of putting an additional pattern in the thin film wafer process, saving magnetic-set time in the mechanical process and allowing for finished head-level rework as required.
- \$375,000 in additional revenue gained by improving System Integration Yield (SIY) at HP's production site from 88% to 97%, increasing allocation by 10% for OEM product.
- Grew OEM revenue from zero to \$12 million annually over four years by designing and developing products to successfully win market share from existing suppliers.

Advisory Engineer (1995 – 2000)

Recruited from IBM to manage 9840 thin film recording head project, Storage Technology's first internally developed tape drive product not copied from an IBM design. Accountable for design, process development, test system development, manufacturing, testing, and product release. Also worked with Advanced Channel group for one year to develop electronics for handling data within tape data systems.

Accomplishments:

- \$900 million in revenues produced in first 18 months of 9840 tape drive launch, which became Storage Technology's largest selling system ever.
- Developed patented method of producing dual-sensor thin film heads with 90%+ yields.
- Used computer modeling to identify cause of poor system-integration yield with early dual sensor heads.

Continued

IBM Corporation, Tucson, AZ

1980 – 1995

\$5 billion Storage Systems Division with 25,000 employees. Worked at development laboratory in Tucson in the Tape Products development organization. Head manufacturing operation recently sold to Hitachi.

Advisory Engineer, Tucson, AZ (1993 – 1995)

Program Engineer for development of thin film recording head design used in IBM MagStar tape storage system. Designed recording head, performed testing and systems integration analysis, and led manufacturing transition to San Jose.

Accomplishments:

- Led development of recording head for first new IBM tape storage system in eight years, able to store more than 10 times the data on a cartridge compared to previous product.
- Saved company \$500,000 to \$1 million in potential field replacement costs by inventing a cost-effective, patented, integrated resistor to solve the high incidence of damaging electrostatic discharge events within sensor—still used in production of current generation of IBM MagStar product.
- Devised method of individual track gradation in head test as a compromise between drive performance and recording head yield.

Senior Engineer, Dallas, TX (1988 – 1993)

Worked as Physicist in IBM's National Engineering and Scientific Support Center in Dallas, providing support to customers on use of IBM computing systems and applications.

Accomplishments:

- Instituted traveling demonstration of IBM's new AIX UNIX-based RISC system at national labs to introduce AIX to scientific/engineering community, illustrate IBM system performance capability, and gain acceptance for use of IBM equipment for technical use. In two years, presented demonstrations in 12 national laboratories and six major universities.
- Pioneered the concept of workstation clustering for numerically intensive computing in labs and universities, introducing a viable alternative to DEC/SUN installations.
- Created first class for IBM marketing representatives on the use of technical computing in physics applications.
- Conducted traveling seminars to selected national labs on parallel computing topics.

Advisory Engineer / Staff Engineer, Senior Associate Engineer, Tucson, AZ (1980 – 1988)

Played a role in restarting new thin-film facility for the purpose of developing first new tape-storage system

Accomplishments:

- Designed film process for the first magnetoresistive recording head used in the industry.

Texas Instruments, Dallas, TX

Prior to 1980

World leader in digital signal processing and analog technologies.

Process Engineer

- Developed processes and test methodologies for the fabrication of specialized radiation-hardened transistors and thyristors used for military applications.

Education**M. S., Physics, Colorado State University**, Fort Collins, CO

Thesis: *Sputtered Indium-Tin Oxide Films and Heterojunctions*

Honors B. S., Physics, Virginia Commonwealth University, Richmond, VA

Graduated with Honors; recipient of Outstanding Physics Senior Award

Publications**IEEE Transactions on Magnetism**, Vol. 35, No 2.

Advanced Multi-Track Tape Head for High Performance Tape Recording Applications, March, 1999

IBM Technical Disclosure Bulletins:

Optimal Recording Head Performance Through Programmable Write Current, November 4, 1994

Thin Film Head for Magnetic Recording, September 1, 1989