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# Thomas M. Coughlin

**Objective**

High level corporate, engineering, management, advisory or consulting position where vision, strategic thinking, hands-on knowledge of technology and experience are needed to achieve maximum results.

**Qualifications**

Visionary technology spokesman in data storage industry. Led groups with many successful disk drive products. Successful twenty+-year history in managing recording head and media design, qualification, drive integration, drive troubleshooting and quality/cost control.

**Professional experience**

**President,** Coughlin Associates, Clients include Ampex Corporation, Raychem Corporation, Quantum, Engenio, Network Appliance, PriceWaterhouseCoopers, Seagate Technology, UCSD. 1994-96 and 1999-2009.

- Roles included champion and general manager facilitating and publicizing advanced magnetic recording technology development for disk, heads, drive drives, and network storage systems.
- Technical due diligence for investors in bankruptcy and start-ups in data storage
- Investigations into data erasure and security
- Author of market and technology research reports on storage and storage applications 1997-2008.
- Author of **Digital Storage in Consumer Electronics** published in March 2008 by a division of Elsevier
- Many presentations to large and small groups. Conference organizer.

**Director, Advanced Head and Media Development,** SyQuest Technology, 1998-99

- Led team which developed MR & GMR heads, media and channels for removable storage applications
- Drove headstack quality and yield improvement task force in Penang
- Achieved significant cost reductions with heads and media vendors
- Organized and participated in contamination control task force which successfully developed techniques for controlling removable Winchester cartridge contamination

**Director, Business Development**, Ampex Corporation 1996-98

- General Manager directing laboratory work in-house, at customer sites as well as 4 sponsored University projects.
- Organized customer qualification efforts at 4 drive companies.
- Completed 15 records of invention and submitted 6 patent applications.
- Published 12 papers/articles on keepered media technology (4 invited).
- Presented technology to customers and large audiences throughout the world (including 6 invited presentations).

**Vice President of New Product Integration**, Nashua Computer

Products 1993-94.

- Led department of 25 including 4 directors and Singapore customer engineers in high-end 95 mm and 65 mm disk product development and qualification with major disk drive companies.
- Interfaced with customers, other vendors and Nashua to develop advanced recording systems.
- Achieved good time-to-market on advanced programs utilizing contact recording and MR head recording.

**Director of Heads and Media**, Micropolis 1991-93.

- Developed, designed and sustained advanced heads and media for high end 5.25 and 3.5 inch drives.
- Headed department of 15 with budget of more than $3M.
- Led multidisciplinary quality and yield improvement team that doubled yields in Singapore and Thailand, saving the company over $20M.
- Coordinated heads/media quality and sustaining engineering activities.
- Developed procedures for heads and media qualification, integration and quality control. Trained corporate personnel in these procedures.
- Developed and tested heads and media for 6 drive generations using state-of-the-art thin film media, MR and low flying inductive heads.

**Manager of Heads and Media**, Maxtor 1989-91.

- Supervised 4 engineers and 4 technicians.
- Qualified and integrated heads and media for LXT-200, LXT-340, LXT-535, MAGIK 1 and MAGIK 2 drives. Products provided over $100 M of revenue to the company.
- Created heads and media laboratory and department for 3.5 inch drive development. Group was one of the strongest in the industry.

**Senior Engineer**, Seagate 1987-89.

- Primary technical interface between Scotts Valley drive engineering and Fremont disc plant.
- Disk technologist for Recording Technology Department.
- Coordinated magnetic measurements and control of media manufacturing for drive engineering.
- Modeled recording processes to support drive design.

**Principal Engineer**, Polaroid 1985-87. Project leader for head contour design and head/medium interface measurements at Polaroid.

**Senior Engineer**, Nortronics 1983-85. Developed high density recording heads for flexible media.

**Advanced Engineer**, 3M 1980-83. Developed perpendicular magnetic recording for flexible media.

## Education

- **PhD Electrical Engineering**, Shinshu University, Nagano Japan
- **Masters of Electrical Engineering** with a minor in **Materials Science**, University of Minnesota, Minneapolis, MN
- **Bachelor of Science in Physics**, University of Minnesota, Minneapolis, MN
- Courses taken towards **MBA**, Worchester Polytechnic Institute, Worchester, MA

## Professional activities

- 60+ **published papers and articles** on data storage technology
- 6 **patents** granted for on head and media designs

- **Senior Member** of IEEE
- **Past Chairman, IEEE Magnetics Society** (Santa Clara Valley Chapter)
- **Past Chairman, IEEE Consumer Electronics Society** (Santa Clara Valley Chapter)
- **Past Chairman**, Santa Clara Valley IEEE Consumer Electronics Society
- **Chairman**, IEEE Region 6 Central Area
- **ADCOM Member** of IEEE Consumer Electronics Society
- **Co-Chairman of IDEMA consumer electronics committee**, member of symposium and Diskcon committees
- **Publicity Chairman** of 1992, 1996, 2002, & 2004 **Magnetic Recording Conferences**
- **Chairman of IIST Symposia** at Santa Clara University, 1997-2002
- **Co-Chairman** of Bi-Annual iNEMI Mass Storage Roadmap
- **Organizer** of Annual Storage Visions and Creative Storage Conferences
- **Member** of SNIA, IDEMA, APS, ACM, AVS, SMPTE