

MEMOREX CORPORATION  
LARGE STORAGE SYSTEMS GROUP  
DEVELOPMENT ENGINEERING  
1969 - 1973

This is a photograph of a collage assembled and photographed by Rodney Laas and Geoff Lee in late 1973, copies of which were distributed to attendees at the going-away party for Dr. Marco Padalino. Padalino was then the head Large Storage Systems Development; he left to work for Xerox's Computer System organization in Dallas, Texas. Laas was an engineering change analyst and Lee was an engineer. The original negative has been donated to the Computer History Museum.

The period, 1969 – 1973, marks the Al Shugart era at Memorex. Initially formed as Storage Products Corporation, a Memorex subsidiary, Shugart's organization became the storage products engineering organization within Memorex. With the formation of Memorex's Equipment Group in 1969, Shugart added other equipment engineering responsibilities. Hiroshi (Rusty) Nagakura was then responsible for all storage products engineering. Reporting to Nagakura was Padalino, responsible for disk drive engineering and Walter Hillblom, responsible for control unit engineering. In early 1973 after Shugart's departure, Padalino became responsible for all storage products engineering. Hillblom, Nagakura and Shugart are not in the collage.

The photograph in the center, taken in the spring of 1973 for Padalino, depicts the various managers then within Large Storage Systems Development Engineering.

The picture in the upper right hand corner is the team responsible for the Memorex Floppy Disk Drive product line.

In the collage there are 80 persons shown individually, 15 persons in the manager's photo and 11 persons in the FDD photo for a grand total of 109 including Hillblom, Nagakura and Shugart. About 40 were IBM alumni.

This engineering team was responsible for two major successful Memorex storage products:

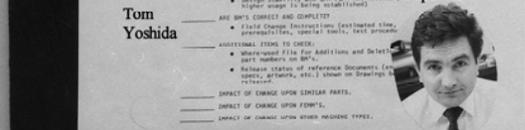
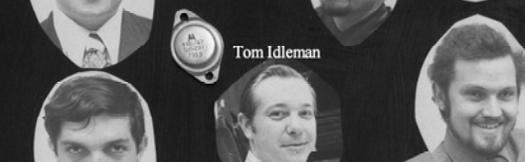
- The 661 storage control unit and 660-0 disc drive (collectively the 3660 Disc Storage Subsystem) that were plug compatible with the IBM 2314 Direct Access Storage Facility.
- The 3671 storage control unit and the 3670 disk drive (collectively the 3670 Disc Storage Subsystem) that was plug compatible with the IBM 3330 Direct Access Storage System.

The 3670 Disc Storage Subsystem, responding to IBM's competitive product announcements, evolved into the 3672 storage control unit, 3673 disc controller and 3675 disc drive. These Memorex products correspond to the IBM 3830-2 storage control unit, 3333-11 string controller and 3330-11 disk drive respectively. The Memorex products were the foundation of much of Memorex's success in the middle 1970's.

The depth of the talent assembled in this team is measured in part by the many companies founded by its veterans, including but not limited to (alphabetically), Array Technology, Conner Peripherals, MiniScribe Corp., PrairieTek Corp., Quantum Corp., Seagate Technology, Shugart Associates and Tandon Magnetics.

T. Gardner, December 19, 2006

# STORAGE SYSTEMS 1969-1973



E C Nr 3300

PRODUCT / MODEL	ORIGINATOR	TEL EXT	GROUP	APPRD BY	DATE
8670	8670			8670	12/1/73
PROJECT CHARGE	ACCOUNT CHARGE	DEPARTMENT CHARGE	BRIEF DESCRIPTION		
		6750	REVISION 5200 P/B TO ELIMINATE AERIAL HDZ		
ROUTING SEQUENCE					
ANALYST PRE-CHECK	DATE	EVAL GROUP	DATE	QUALITY ENG	DATE
MFG-ENG	DATE	TEST ENG	DATE	PROD CONTROL	DATE
FIELD ENG	DATE	OTHER USERS	DATE	DRAFTING CHECK	DATE
ENGR APPROVAL	DATE	ANALYST FINAL CHECK	DATE	DRAFTS	DATE



**E C CHECK LIST**

IS EC FOLDER CORRECT AND COMPLETE

- ALL P/W's and documents accounted for.
- For Assembly Drawings, ALL ASSEMBLY PARTS, W/L's, etc. filled and included.
- Check Station Information.

IS EC WORKSHEET "PROPOSED" PAGE CORRECT AND COMPLETE

- Reason for Change.
- Reference Material (SPE's, Memo's, Precedence Control Information (Assembly's, etc.))
- All those parts whose usage was changed on P/W's, but drawings not reworked.
- For parts that are being reworked but not replaced, rework instructions. Specify your machine.
- "PROPOSED" PAGE CORRECT AND COMPLETE.

ADDITIONAL ITEMS TO CHECK

- Where used (for Assembly and Detail part numbers on P/W's).
- Release (Status of Reference Documents (e.g. specs, patterns, etc.)) shown on Drawings.

IMPACT OF CHANGE UPON OTHER PARTS.

IMPACT OF CHANGE UPON OTHER SYSTEMS.

MEMOREX  
Data Disc

FD/IT

← Insert  
↑ Up  
Return to envelope when done

# Memorex Disk Drive Division Managers

Spring 1973

Marco Padalino had this picture taken after Al Shugart had left Memorex but before Shugart Associates began forming. It was taken in the lobby of building 14 in front of mockups of the Memorex 3670 & 3671. By the end of 1973 all but Gardner, Graham, Harnett, Montero and Singleton had left Memorex.



Duanne  
Secrist

Herb  
Thompson

Larry  
Pyle

John  
Henry

Tom  
Gardner

Bob  
Franchini

Dave  
Osborne

Brent  
Nilson

Bill  
Montero

Gary  
Harnett?

Don  
Wartner

Ron  
Singleton

Bill  
Harry

Ian  
Graham

Marco  
Padalino

Don  
Massaro

**Dave  
Stoddard**

**George  
Anderson**

**Erik  
Katz**

**Dave  
Brown**

**Ron  
Holliday**

**Andy  
Leon**

**Jugi  
Tandon**

**Linda  
Kapp**

**Knute  
Kundsen**   **John  
Conners**

**Jim  
Black**

