

## **Introduction: 50<sup>th</sup> Anniversary of 99 Notre Dame**

The Magnetic Disk Heritage Center is pleased to join with the City of San Jose in this commemorative event, recognizing the 50<sup>th</sup> anniversary of 99 Notre Dame, where the seminal work creating the first magnetic disk storage device was done. For MDHC this event is also a celebration of the actions of the Historical Landmark Commission and the City Council that led to officially making 99 Notre Dame a City Landmark on January 22, 2002 as well as recent changes favoring the preservation of this building.

Currently, MDHC it is a volunteer organization based at Santa Clara University, whose priority is to better familiarize the local community with their technical heritage in data storage. A brief comment on MDHC may be in order here. Santa Clara University ran a very successful 100<sup>th</sup> anniversary conference on magnetic recording in 1998. I felt it obvious that special historical recognition of magnetic disk storage should occur during this 50<sup>th</sup> anniversary year. I then discovered, about 15 months ago, that while the 99 Notre Dame building still existed it had never received the status of a City Landmark and also was a candidate to be destroyed for a planned parking garage. This situation led me to immediately form the Magnetic Disk Heritage Center. If we are able to secure the interest and enthusiasm of the people of San Jose, I believe our long-term goal of creating a very special museum in this building, covering the technology and societal impact of magnetic disk storage, is achievable.

First, I will briefly recognize key support that has been invaluable to our mission.

- The Court, the current lessee, based on the unique historical role of this building, gave MDHC approval to place panels on the early history of magnetic disk storage in the main lobby. Also, they agreed to allow us to hold this commemorative event here.
- IBM provided access to historical information and the loan of a RAMAC for both this event and its subsequent public display the following 3 days at the San Jose City Library.
- The Visitors Bureau of San Jose expertly handled the invitation process for this event.
- The SJ Public Library enthusiastically joined with MDHC, to arrange for the exhibit of an original RAMAC disk drive at the main library. This action is especially satisfying to me, representing as it does a major contribution to our efforts to reach the general public.
- Also, I will take this opportunity to mention one particular individual whose dedicated support has been so crucial to MDHC. That is Michael Xi, who is responsible for translating our ideas into the impressive graphic displays, brochures and other items key to the communication of this history.

A technological innovation that turns out to be the defining factor leading to sustained major changes in the way we live and work certainly is an appropriate candidate for a major technology landmark.

The premier example is the innovation of the moveable-type printing press by Gutenberg in Mainz, Germany in the 15<sup>th</sup> century that made possible the mass printing of books, journals, pamphlets, etc. This dramatically accelerated the storage, dissemination and sharing of information, using paper as the medium. This advance, as we know, totally transformed Western Civilization.

The creation of the first magnetic disk drive took place in this small, unpretentious building, involving less than 50 individuals and led by Rey Johnson, a prolific inventor, who was given the freedom to pursue whatever projects he wanted. He selected a high-risk challenge that held the promise of totally altering the data processing procedures of small business, at that time based on batch processing using punched cards. His goal required a device that could store a very large capacity with an access time to any record of less than a second. The resulting magnetic disk drive made feasible on-line transaction processing. Further advances he initiated while in downtown San Jose included research on an advanced disk file having a flying head per surface; a feature utilized in all subsequent drive designs. The first such drive led to real-time on-line transaction processing and continued advances revolutionized the computer industry

Today the Internet provides real-time on-line storage and retrieval of information, all of which essentially resides on magnetic disks. Further, the content includes, in addition to the text and individual images as on paper, time varying signals conveying sound, moving pictures, complex waveforms, etc. The huge quantity and immediate real-time availability worldwide of information is leading to another radical transformation of society. Thus, the magnetic disk is center stage in the information revolution of today, a position held almost exclusively by paper for 5 centuries.

Now, information is moving from paper to magnetic disk and from physical transport to communication networks. And the consequences, while not totally predictable, are certain to be dramatic. Therefore, magnetic disk storage clearly qualifies as a major technology landmark

With events of great consequence people want to know: What happened? Who made it happen? Where did it happen? And when? All are relevant and the answers essential to gain an insight into time period, environment and conditions under which the innovation took place. Who would have predicted in the early 50's that such a significant technological innovation would occur in the then small town of San Jose, far from the intellectual centers of computer activity of the day in Boston and Philadelphia?

For magnetic disk storage the what, who, where and when are:

1. [What] The RAMAC disk drive, designated as an International Historical Mechanical Engineering Landmark in 1984.
2. [Who] Rey Johnson, who received the National Medal of Technology in 1986 for his contributions to magnetic data storage.
3. [Where] 99 Notre Dame, made a City Landmark this year
4. [When] 1952.

The City of San Jose is in the unique position of being able to establish a major technology landmark at the very site and in the original building where magnetic disk storage was created. The City should claim its birthright. I believe at some point in the future, residents will look forward to taking visitors to 99 Notre Dame in downtown San Jose, as a place then high on the list of attractions.

The long-term goal of MDHC is to establish a very special San Jose Museum in this location, anchored by magnetic disk storage with the centerpiece, or "icon", at least from my personal point of view, being a restored functional RAMAC disk drive.

We hope that our activities will in time be relocated to and continued at 99 Notre Dame. Finally, on a personal note, I am planning to write a book on the early days of magnetic data storage and my hope is that when I get to the final chapter, I will be able to at least mention that the MDHC mission is still on track. There is a long but exciting journey still to be taken.