# A DIGITAL REPOSITORY YEAR:
# one museum's quest for the basics


Computer History Museum

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## Confront the problem: preparation                     July-September 2011

- ∞ Define the problem & understand the catalyst
  - ∞ 60 terabytes of Museum produced high definition (HD) video
  - ∞ with no sustainable back-up or preservation methods
- ∞ Cultivated permanent stakeholders from senior management & the Board
- ∞ Engaged cross-departmental **core team** of 4 digital preservationists
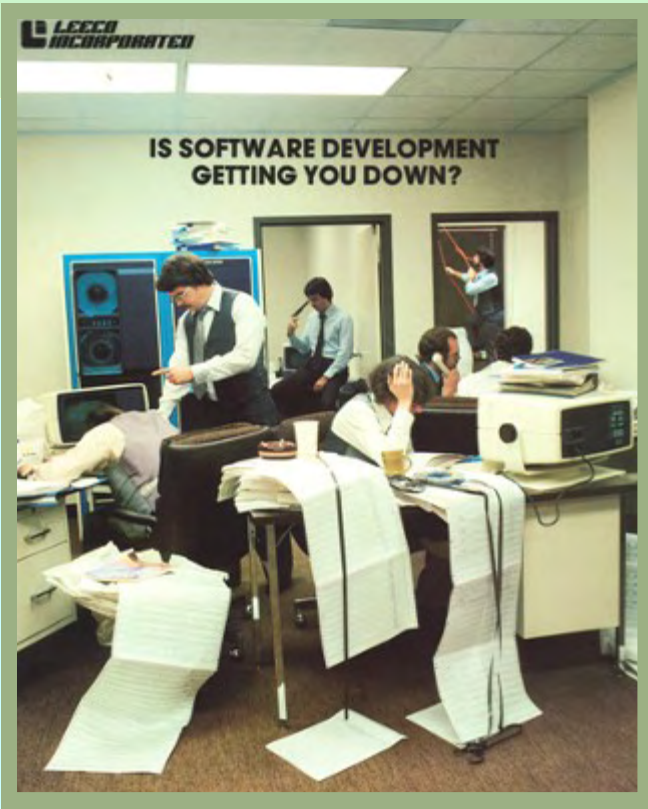

Marketing Brochure, Leeco Inc., 1981 #102646182

## Create the Probable Solution: planning and more planning          October-December 2011

- ∞ October 1st received start-up funding from Google.org Foundation
- ∞ Digital repository consultant hired
  - ∞ The 'authority' she gave the project in the eyes of the stakeholders was invaluable
- ∞ Created concise **Project Charter**
  - ∞ purpose, objectives & deliverables, assumptions, scope, staffing, roadmap
- ∞ Survey the Museum's 'archival' digital objects
- ∞ Current literature survey & wrote best practices guide
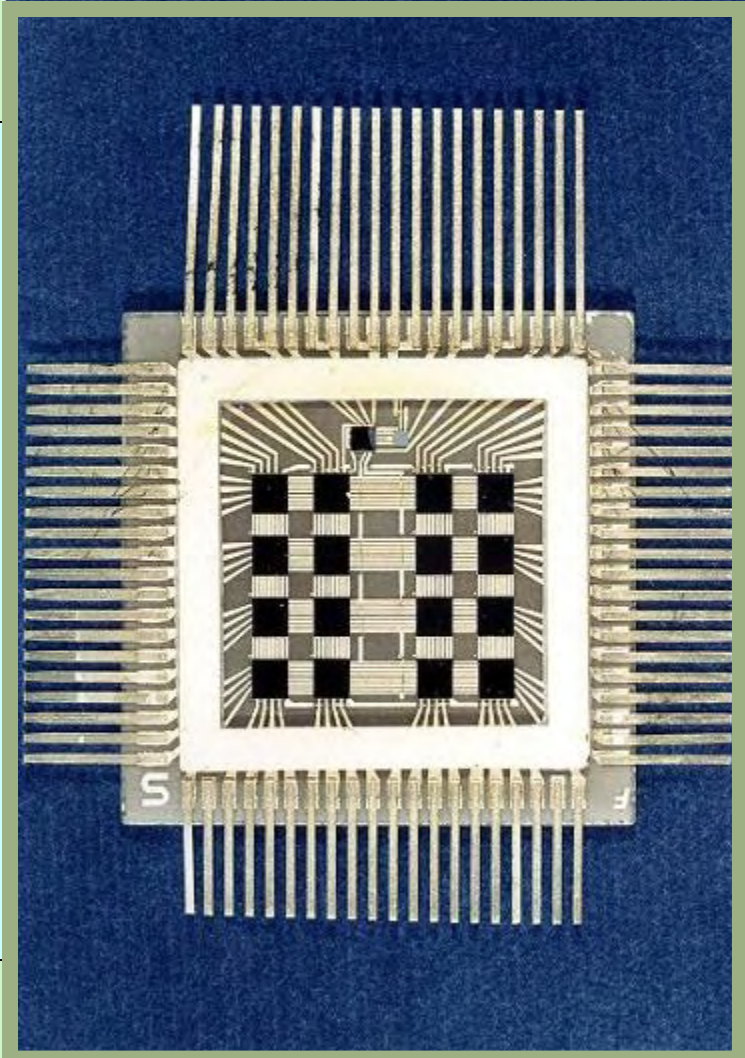

Early integrated circuit memory, Fairchild Corp., 1968, #500004584.

## Curation: policy & framework                     January-June 2012

- ∞ Digital repository management software functional requirements
- ∞ Survey and test drive open source digital repository management software
  - ∞ Archivematica chosen
- ∞ Recruit and hire storage infrastructure consultant
  - ∞ Explore storage options, configurations, & pricing
- ∞ Policy document completed
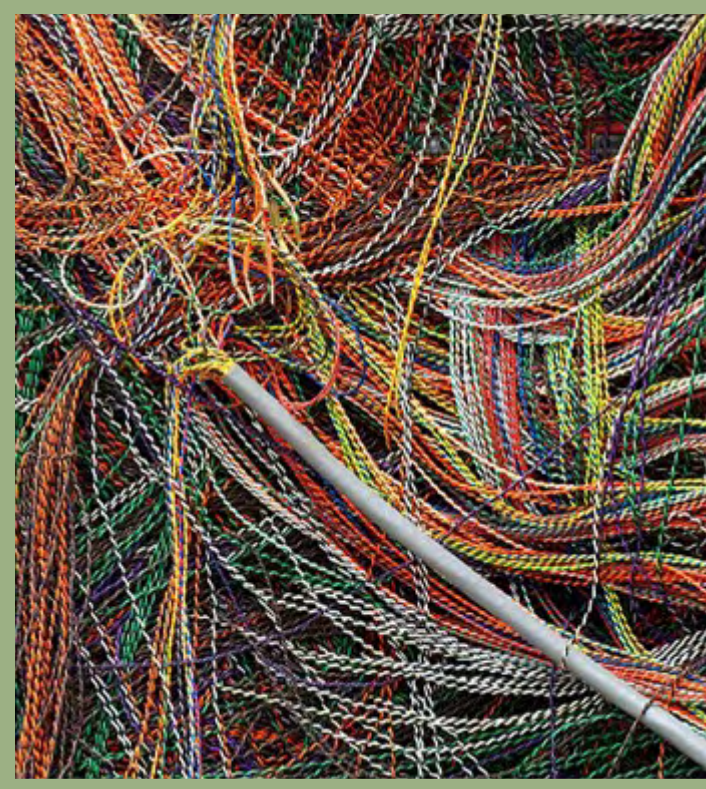

Backplane wiring of the CDC 7600 supercomputer, c. 1969

## Closure?: prototype                     July-September 2012

- ∞ Testing of storage infrastructure (hardware & software stack)
- ∞ Purchase and install storage infrastructure & *Archivematica* software
- ∞ Ingest test digital objects while creating procedures document
- ∞ 5-year sustainability plan
- ∞ Prospect for year two funding
  - ∞ Funds for ingest, full deployment, prototype an on-line user interface
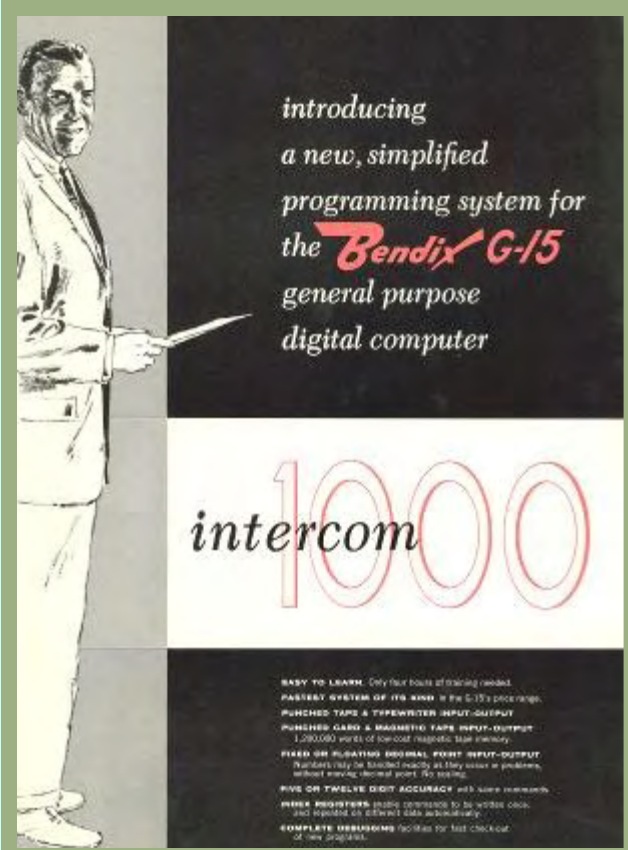

Marketing Brochure, Bendix Corporation, 1955, # 102646231

## And the Presumed Winner is…. CHM built DIY
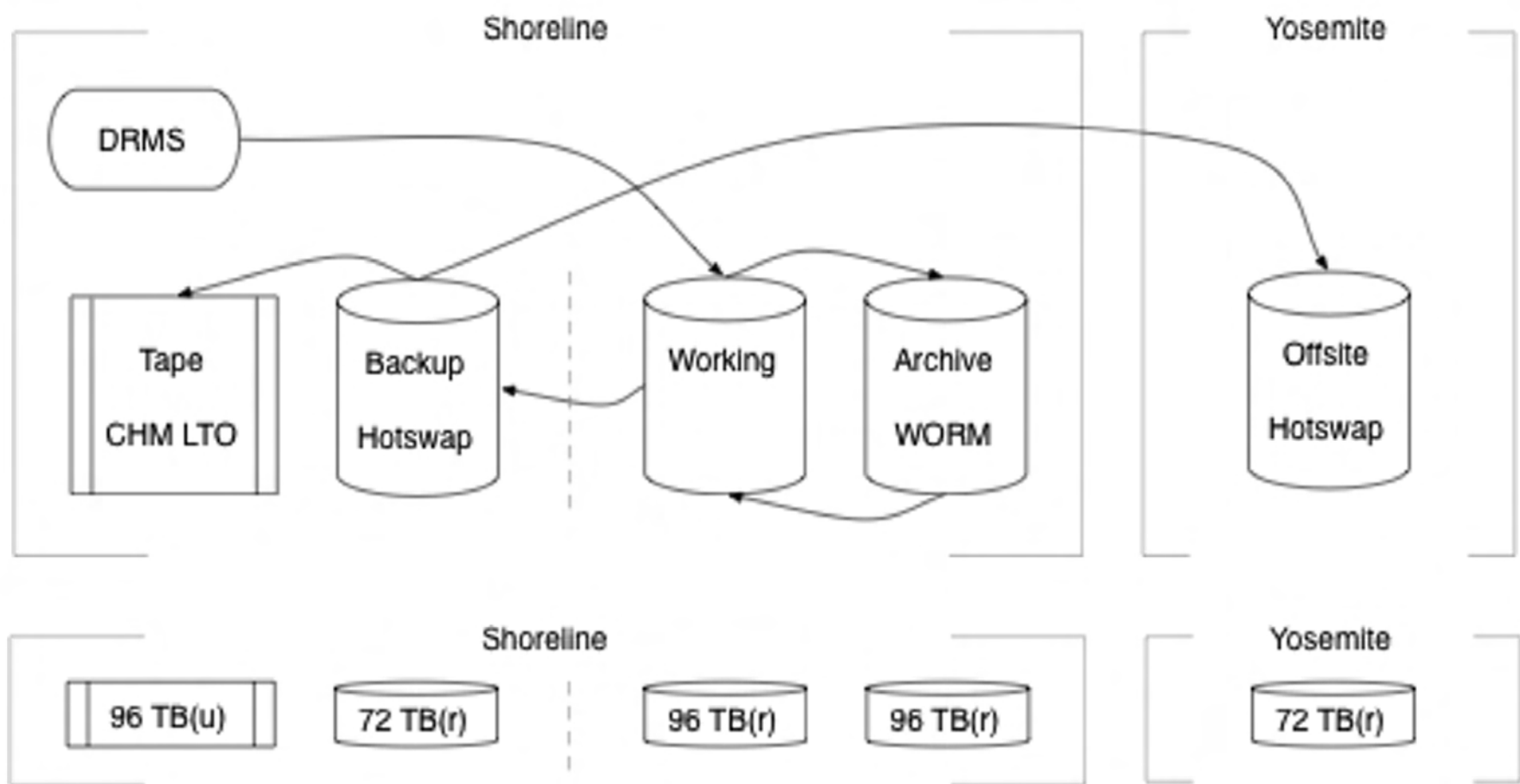


| | Each |
|---|---|
| **Server** | |
| IBM x3650M3 | $10,000 |
| | |
| **Storage** | |
| 60 Slots JBOD (DataON-1660) | $10,995 |
| 28 Slots JBOD (CSE-837E16-RJBOD1) | $2,000 |
| 3TB - 6G SAS-2 drive (Enterprise)(24/7) | ~ $450 |
| 3TB - 6G SATA drive (Hitachi Ultrastar) | ~ $200 |
| 4TB - 6G SATA drive | ~ $300 |
| Slots (backup / working / archive) (offsite) | |
| TB raw (based on 3TB drive) | |
| **Software** | |
| Commercial ZFS (NexentaStor) | ~ $10,000 |
| Opensource (NAS4Free/FreeBSD) | $0 |
| Opensource (OpenSolaris/napp-it) | $0 |
| Opensource (Linux+LivermoreZFS Kernel) | $0 |
| | |
| **Total** | |

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