

National Archives of Australia

Digital Preservation

Michael Carden



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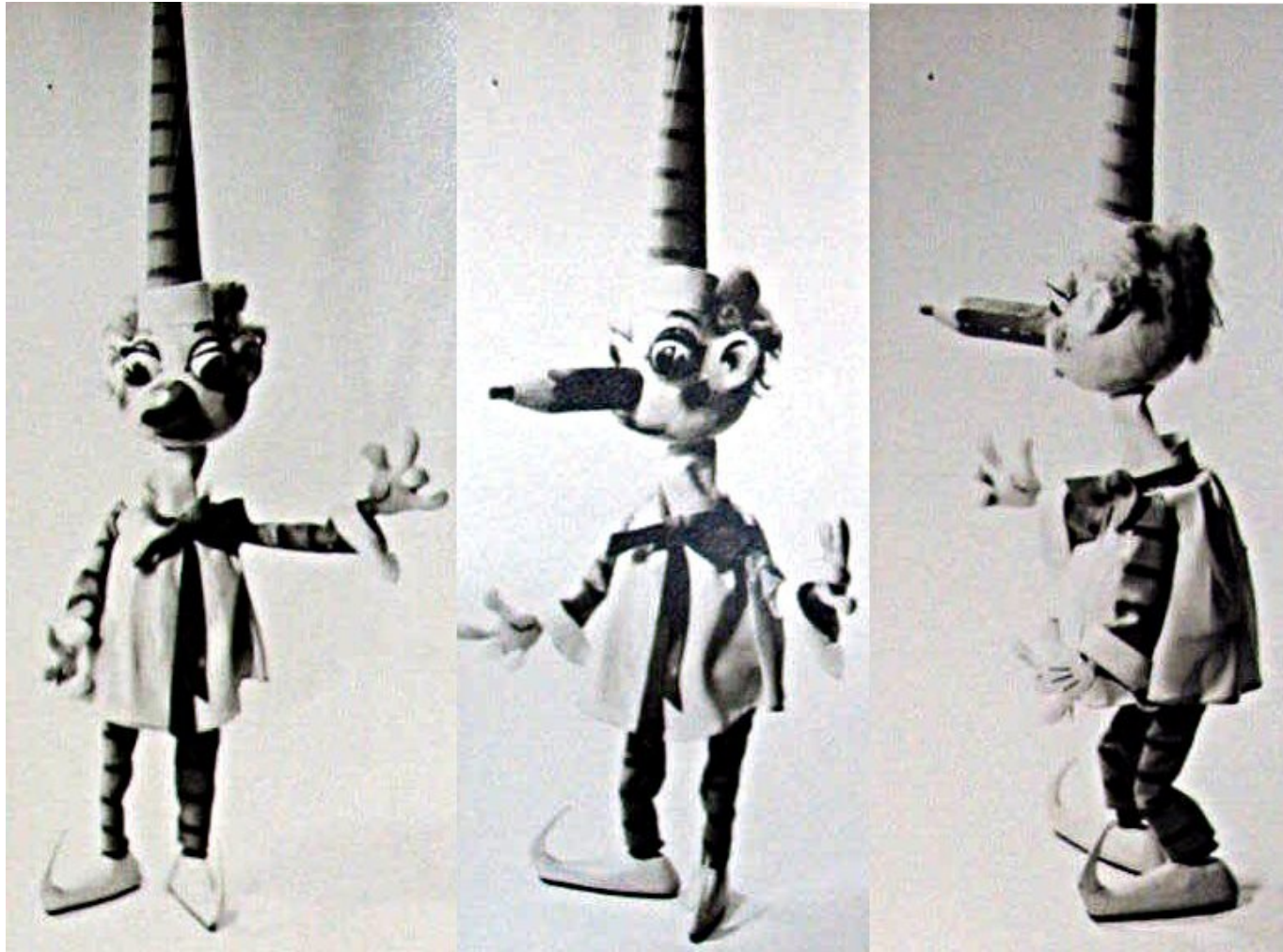
What does the National Archives keep?

- Paper files.
- Photographs.
- Architectural drawings.
- Sound recordings.
- Film and video.
- Textiles.

A wide variety of records



A wide variety of records



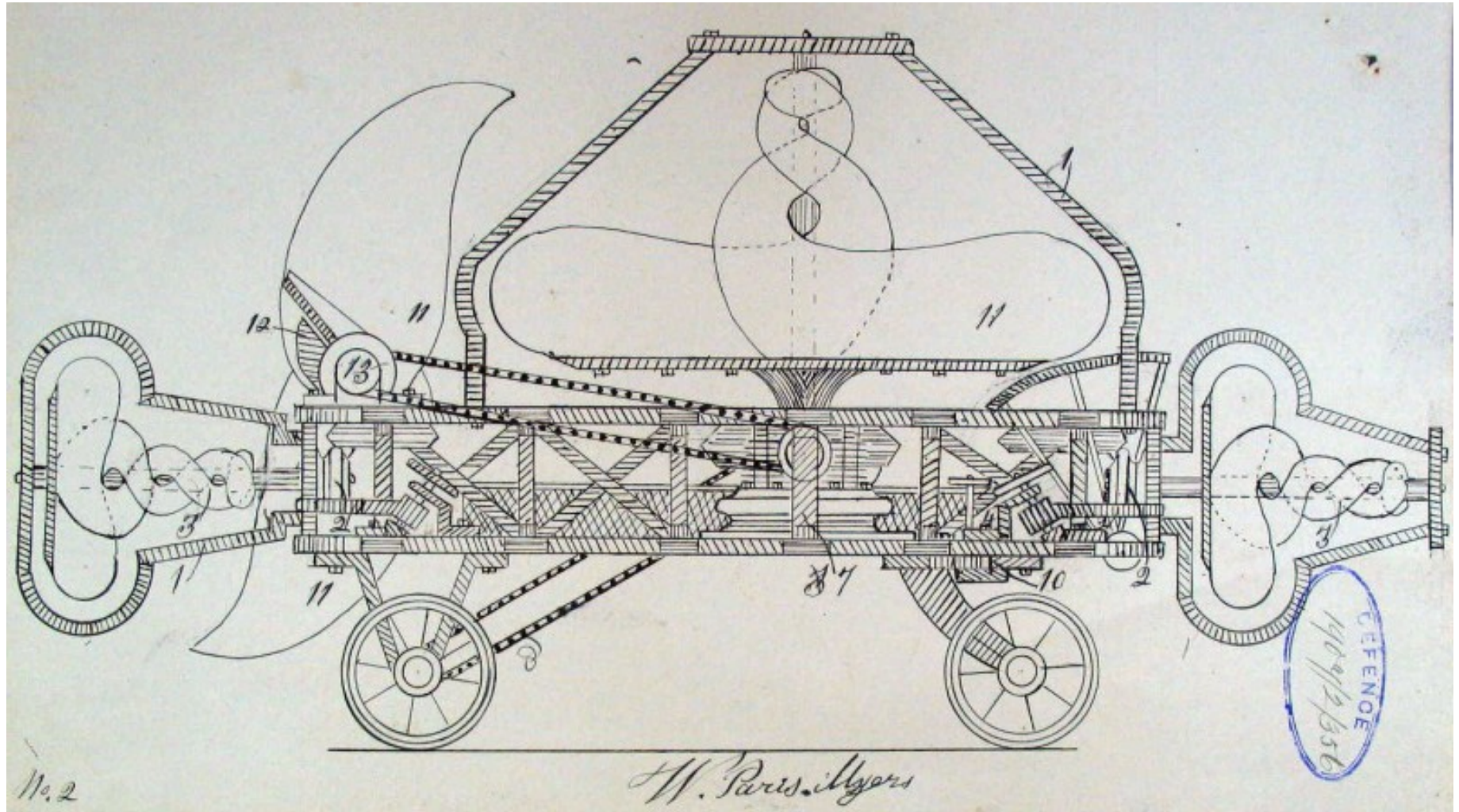
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A wide variety of records



Digital Records

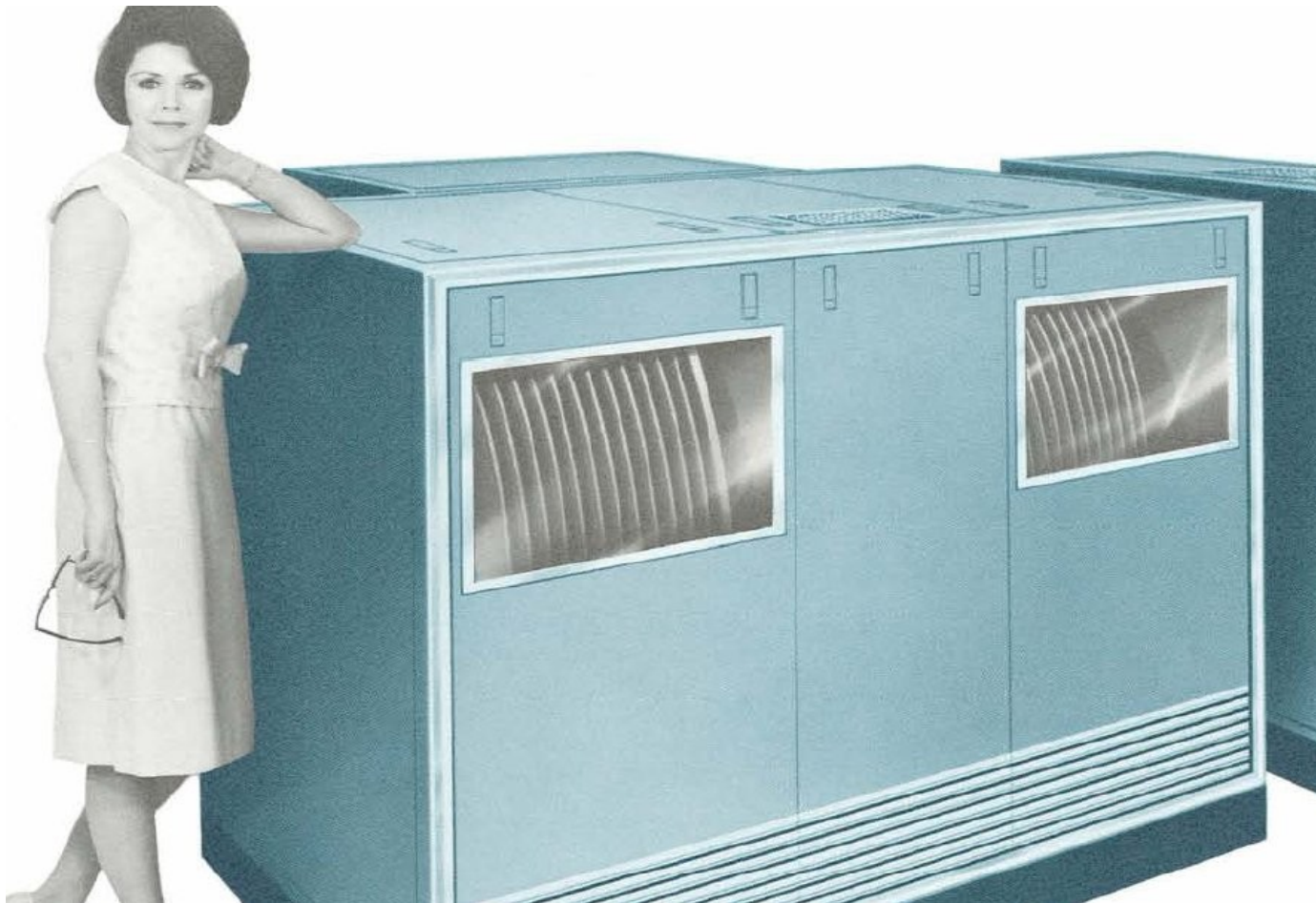


Why digital preservation?

- Hardware / media obsolescence.
- Operating system obsolescence.
- Software application obsolescence.



Hardware



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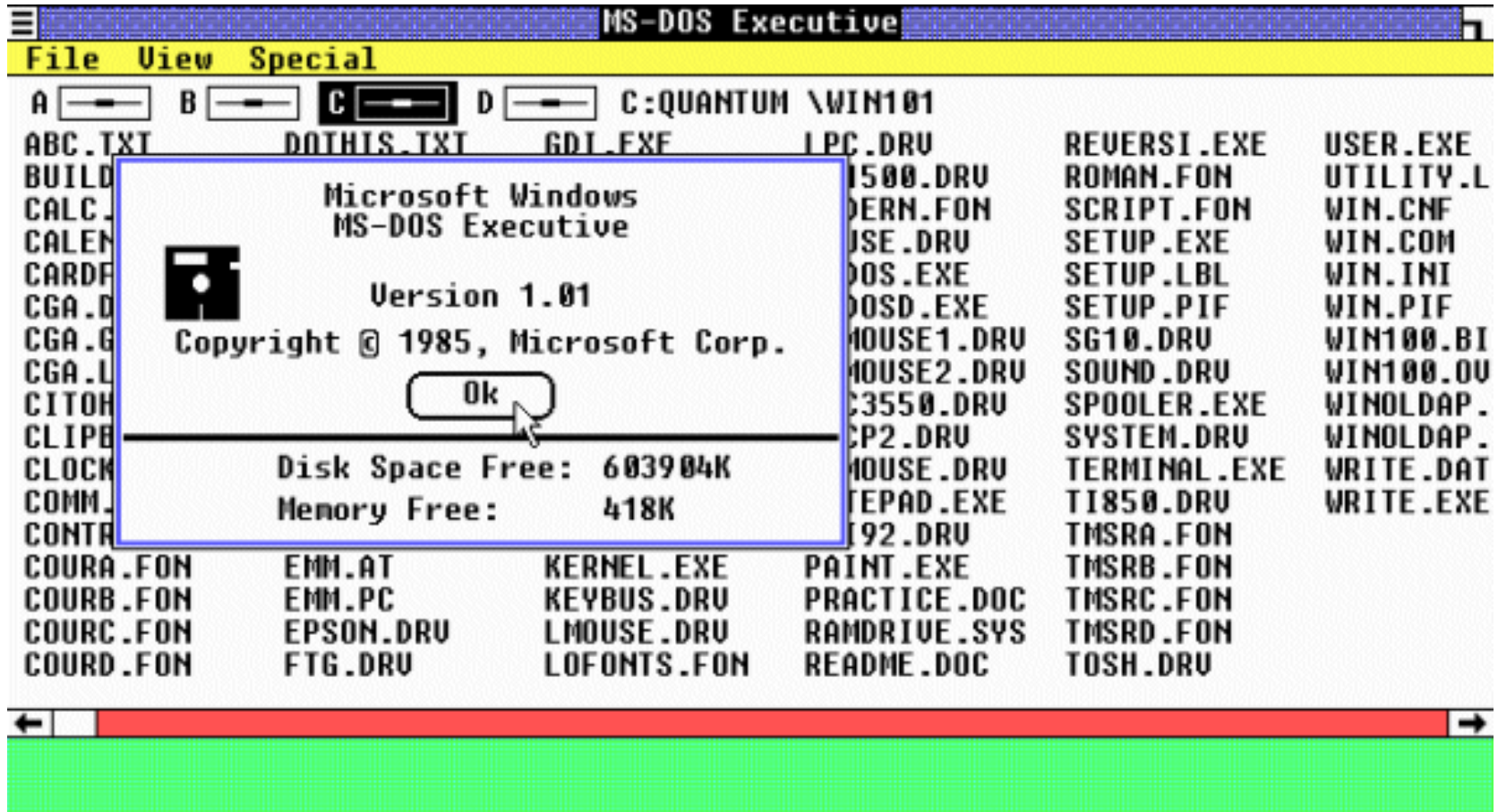
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Media



Software



Digital Preservation

- Started R&D in 2001.
- The Essential Performance Model.
- Designed and built a digital archive.
- Now in production use for two years.

Computer Museum



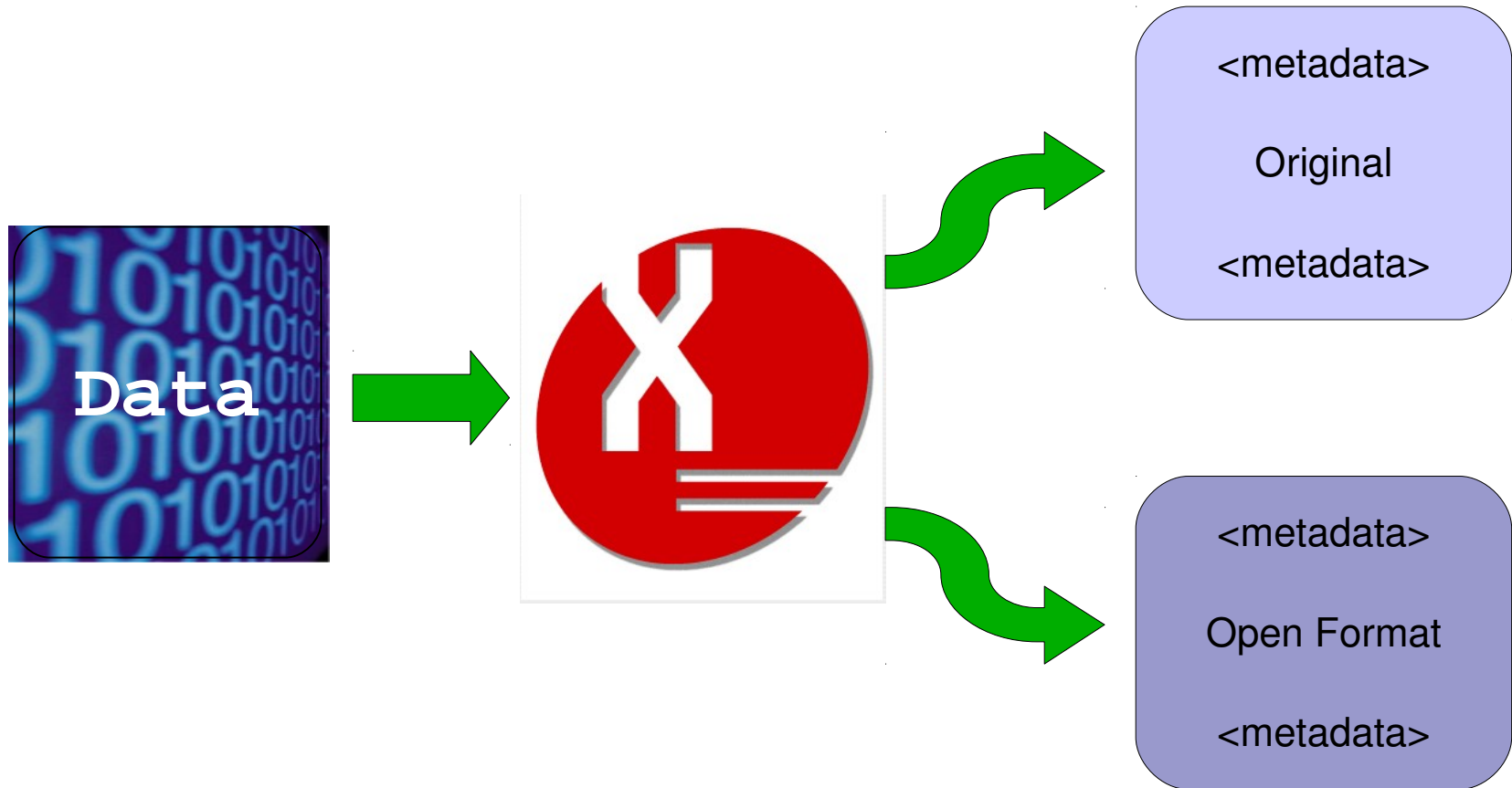
Emulation



National Archives method

- Normalise to selected open formats.
- Store original and normalised versions with metadata.

Preservation using Xena



Open formats

- Based on open standards.
- Community developed.
- Multiple implementations.
- No licensing constraints.

Open format examples

- ODF - OpenDocument Format.
- XML – eXtensible Markup Language.
- HTML – Hypertext Markup Language.
- PNG – Portable Network Graphics.
- FLAC – Free Lossless Audio Codec.

Xena software

- Determines file formats.
- Converts to open formats.
- Custom metadata wrappers.
- Desktop or 'backend' app.

Open source software

- Transparency.
- Authenticity.
- Collaboration.
- Lower the bar for entry.

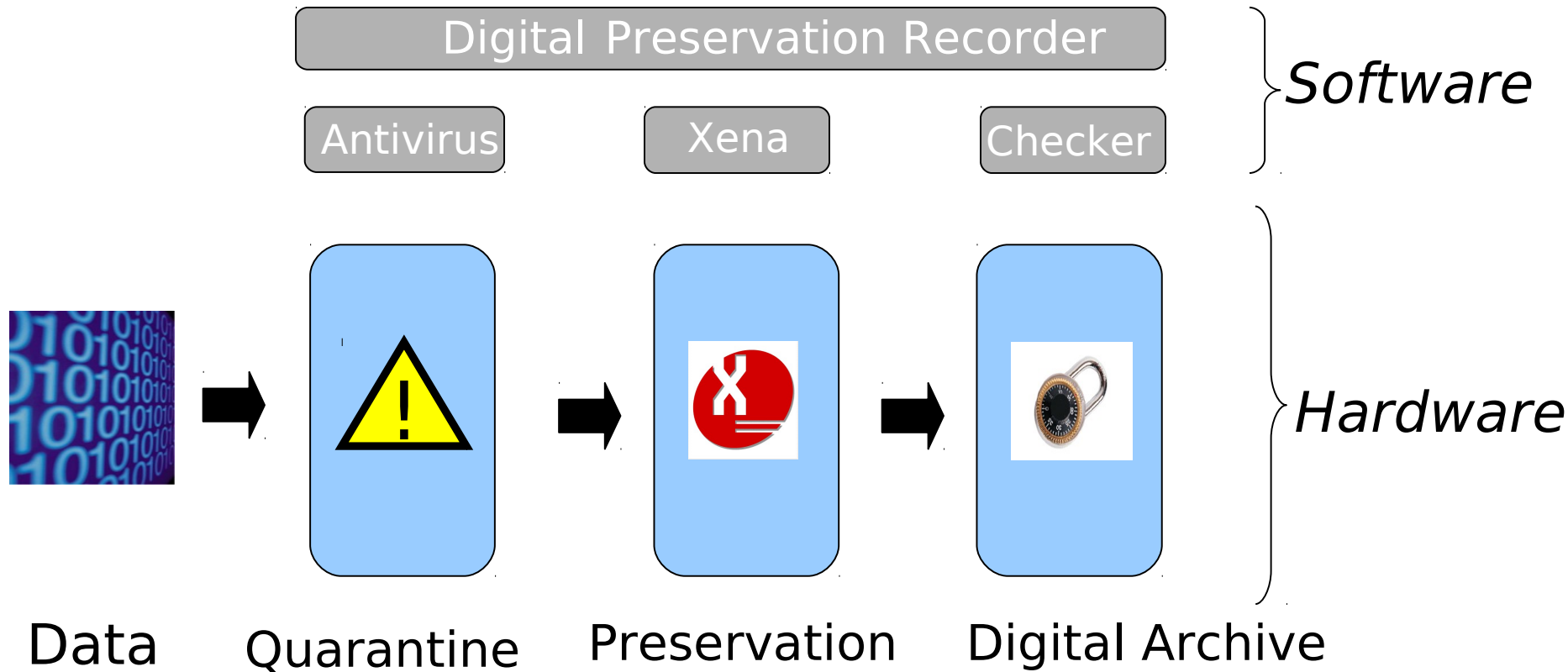
Xena integration

- DSpace at Sydney University.
- TRIM at the City of Perth.
- Alfresco Content Manager.
- Digital Preservation Recorder.

Digital Preservation Recorder

- Preserves an audit trail.
- Guides workflow.
- Controls external software.
- Manages the Digital Archive.

Three-step process



Free downloads

<http://xena.sourceforge.net>

<http://dpr.sourceforge.net>



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The Future

- Digital video.
- Databases.
- 2D and 3D modelling.
- Geospatial data.
- And so on...

Epilogue

“Digital information lasts forever...”

Epilogue

“Digital information lasts forever...
or five years, whichever comes first.”

-- Jeff Rothenberg.

Scientific American, January 1995.