

From Dreams to Reality

- 15 years ago...the dream
 - Automate it “all”!
- 6 years ago...the reality
 - For digitization, at least
 - Born-digital came in early 2024

Storage Shares and Automated Workflows

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About Us

- NC State University (R1)
- Two technical departments (IT, DLI)
- History of building apps using open source tech
- Medium-sized Special Collections

The Missing Piece

- Storage we could mount on Windows, Mac, Linux
- Storage where permissions acted as needed and expected

Storage

- Dell Unity 680 platform
- 480 TB of 7200 RPM drives
- 360TB usable space after RAID

Volumes and Shares

- Network File System (replaced Samba shares)
- Working and preservation volumes
- Digitized and born-digital shares
- Mount to desktops using .sh and .bat scripts; ssh access to file server
- Persistent mount on app servers

Apps

- Wonda (digitization)
- DAEV (born-digital)
- SCPS (digital preservation)

Working Volume

- Born-digital share > DAEV, B-D workstations
- Digitization share > Wonda, digi workstations

Automations

- Focus: storage-related automations
- Working directory creation, file naming
- Technical QC (file names, perms, ppi, etc)
- Derivative processing, OCR, captioning, publication
- Ingest into local digipres system and APTrust

What I Don't Have to Do Now

- Upload files to a CMS
- Sync files to servers
- Run processing scripts
- Upload files to a repository
- Create a lot of metadata by hand

Challenges

- Managing technician access can be tricky (IP-based)
- Permission issues can be mysterious (rarely but still)
- Occasional downtime
 - Harder to work around w/ born-digital
- Lots of apps and APIs to manage

But Efficiencies!

- 50TB ingested through Wonda (6 years)
- 8TB ingested through DAEV (2 years)
- (55TB ingested through legacy method)

Credits

- DLI: Jason Ronallo, Trevor Thornton, Jon Page, Kevin Beswick, Bret Davidson, Steve Morris
- IT: Mike Kastellec, Chris Bowen, Wes Thibodeaux
- SCRC: Shelly Black, Laura Abraham
- Admin: Greg Raschke, Jill Sexton