Video in DSpace

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Introduction
About our project

Project video@fi

The goal: capture almost all lessons taught at faculties at MU and make these video lessons accessible for students.

Players: Masaryk University and especially:
- Institute of Computer Science
- Faculty of Informatics

Started in autumn 2003.
Introduction II
Some basics facts

Present situation:
• over 1.5 TB of data
• more than 3000 files
• over 1500 captured lessons
• about 45 courses
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And we want to store every captured lesson in DSpace.
Issues to solve

All files == a large amount of data.

DSpace submission proces consists of copying from one place to another (via network) – wasting time and disk performance.

And it breaks advantages of place where files are originally stored (breaks special caching, ...).

Especially copying is not nice :-(.
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And it breaks advantages of place where files are originally stored (breaks special caching, ...).

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Solution: We can use UN*X symbolic links!
Symlinking I.

**Issue:** How to send (web UI) a complete path (/disk1/dir/...) to file we want to make a symlink to?

- Classic HTTP through `<input type="file" ... />` doesn’t work :-(.
- There’s no other `<input type="????" ... />`
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**Solution:** Use Javascript... :-/
Symlinking II.

OK we send a path instead of a file => we need to completely rewrite inner submit system (including all appropriate classes).

We need to do this with every new version of DSpace :-(.  

We are lazy ;-) . We need something better.
Our solution

Why not let DSpace do all the work? Let’s do a dirty trick :-)!

Submit the text file simply containing the complete path to the file!

DSpace processes it (with all neccessary steps we need).
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• read the path from the text file we submitted
• replace the file in the assetstore with the symlink
• correct appropriate metadata

and we are finished :-).
Summary

**Advantages** of our "dirty" trick:
- no code rewriting, only add simple one;
- no web UI change;
- no breaking of caches and other performance improvements.

**Disadvantages:**
- can submit only files which are stored at disks accessible from computer the DSpace runs (disks "mounted" to server) :-(

Disadvantages don’t hurt us in this case :-).
Example

A file we want to submit:
/disk1/videofiles/pv002_2006-11-23.avi

A text file containing the complete path above:
pv002_2006-11-23.txt

Submit pv002_2006-11-23.txt to DSpace. This text file is stored at assetstore (assume at $STORED_TEXT_FILE). We have to do:

- replace $STORED_TEXT_FILE with a symlink to /disk1/videofiles/pv002_2006-11-23.avi;
- correct the metadata (bitstream size, name and format)
Questions?

Thank you for your attention