

dmBridge at age one: Reinventing the digital collections web presence at UNLV Libraries

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The problem

- Current templates are a dead end
- New templating system: still “on paper” as of August
- Significant risk in waiting
 - How long?
 - Third try’s a charm?
- What to do?

Specific problems with the default templates

1. “Code soup”
2. Customizations wiped out by upgrades
3. HTML-only output
4. Basic feature set (no clean way to extend)
5. Poor W3C web architecture compliance
6. Require a specialized knowledge set
7. Etc.

The challenge

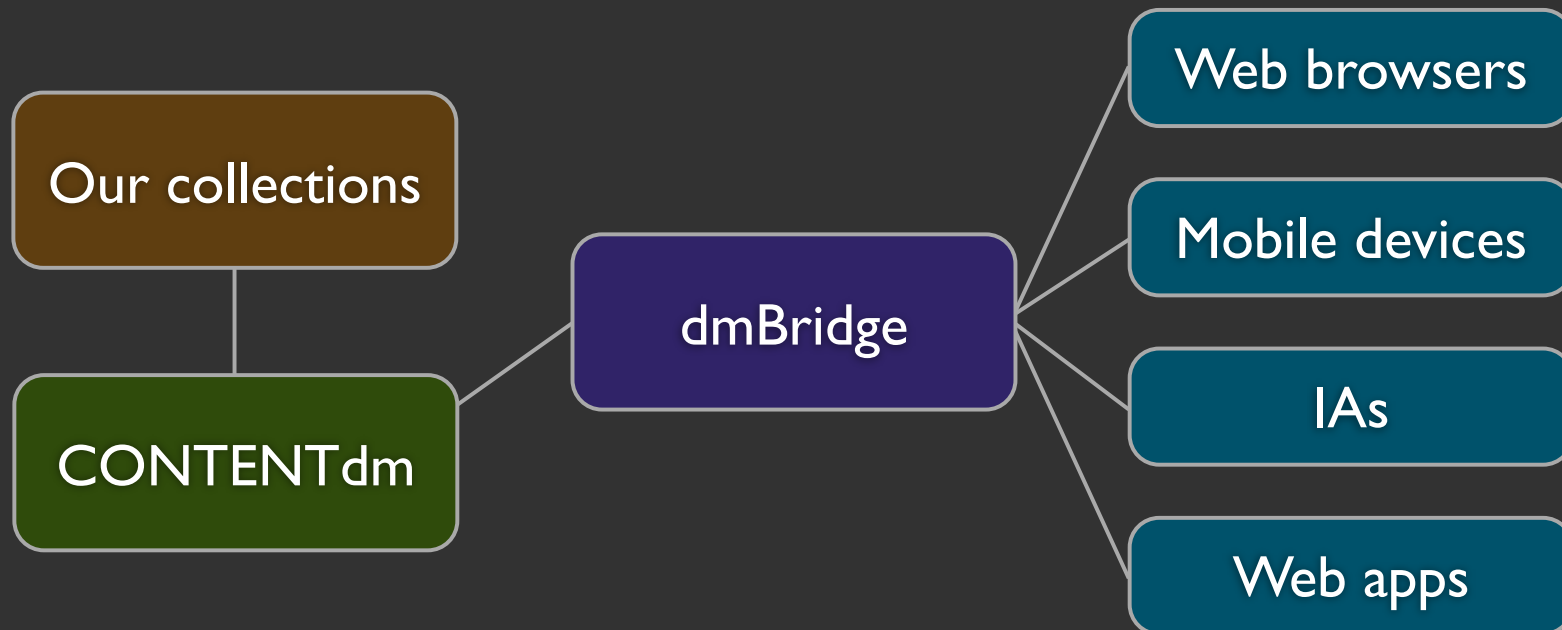
- How to adapt CONTENTdm to:
 - Enable modern websites
 - Support modular extensions
 - Support mobile devices
- In a way that can:
 - Not be disrupted by upgrades
 - Adapt over time
 - Make people happy

Progress thus far

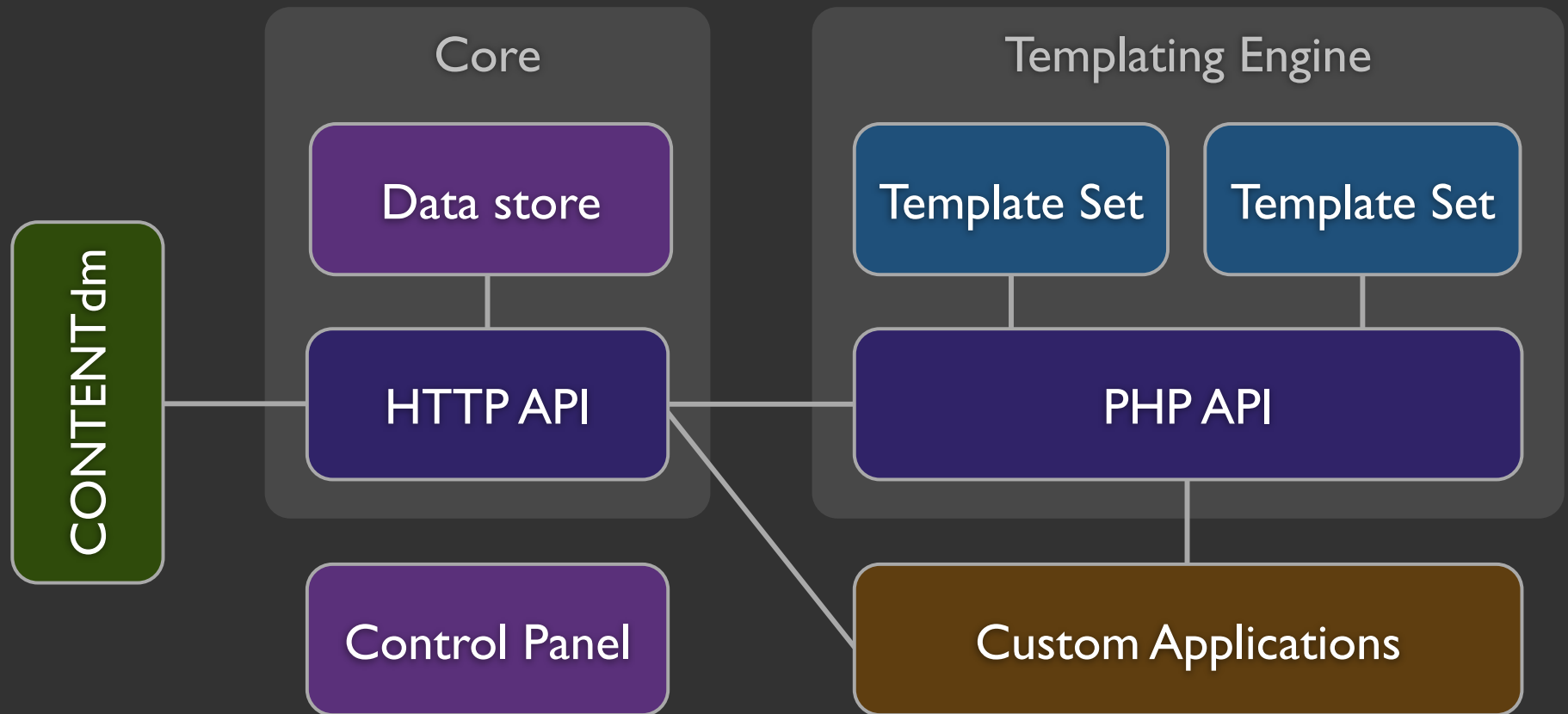
- 5/2008: dmBridge begun
- 11/2008: Pilot project launched
- 5/2009: Second project launched
- 10/2009: HTTP API publicly exposed
- 11/2009 (probably): Beta release

The basic idea

- A bridge between our digital information and the public



A modern software infrastructure for digital collections



How can dmBridge be used?

- As a standalone templating engine
 - Like the CONTENTdm templates, but improved
- As a full-featured PHP API
 - Access features from other PHP projects
- As an HTTP API
 - Access digital collections from CMSs, web apps, mobile devices, etc.

Who can use dmBridge?

- All CONTENTdm users
 - Librarians
 - Web designers
 - Developers
- Templating engine is designed to be easy to use
- Most setup is web-based

As a standalone templating engine

Goals

- Make template creation simple with a shallow learning curve
- Support extensive customizations
 - (and make them shareable)
- Give advanced users the ability to do advanced stuff
- Upgrades should not affect the templates or other components

The finding process supported by the templates



Green shapes are pages that you can style!

Demonstration

Template/collection mapping

One-to-One

Template Set

Collection

One-to-Many

Template Set

Collection

Collection

Many-to-Many

Template Set

Template Set

Collection

Collection

Collection

Modular object viewers

- Assign any viewer to any MIME type in any collection
- dmMonocle: Our own zoomable image viewer



More about the templates

- Template sets are self-contained and shareable
- Code customizations can be implemented as modular, shareable “extensions”
- Customization process is documented on the dmBridge website (final slide)



My Cool
Templates.zip

PHP API

```
$obj = new dmObject(new dmCollection('/uw'), 5);

echo "Hi, I'm " . $obj->getMetadata('title')->getValue();

echo "I'm from the collection called " .
    $obj->getCollection()->getName();

if ($obj->hasChildren()) {
    echo "My first page is called "
        . $obj->getChild(0)->getTitle();
}

foreach ($obj->getComments() as $c) { ... }
```

As an HTTP API

The web is more than just web pages...

Web Services

JSON

XML

Web Pages

HTML

XML+XSLT

Feeds etc.

Atom

RSS

RDF/XML

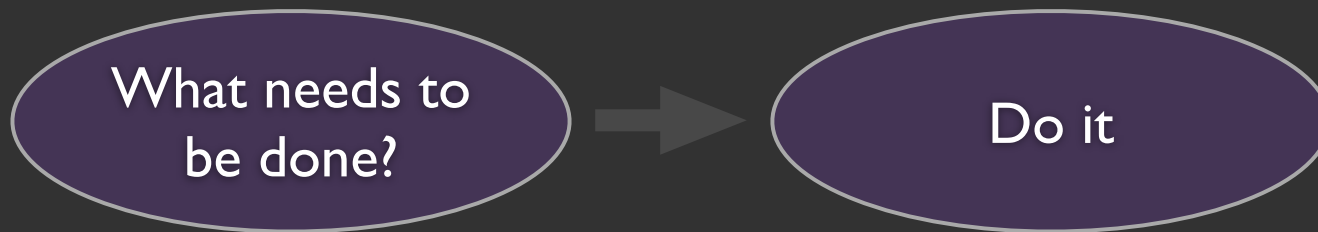
OAI-PMH

Goals

- Provide XML and JSON output
- Abide by REST principles
- Expose digital resources with sensible URIs
- <http://digital.library.unlv.edu/api/>
- <http://digital.library.unlv.edu/api/1/objects/hughes/87>

Logistics & wrap-up

Development process



- No focus groups
- No site surveys
- No committees
- No task forces
- No working groups
- Highly bottom-up

Documentation

- Detailed method-level documentation for the APIs
- New website under development
 - User's manual
 - Blog
 - Forums

System requirements

- Requires what CONTENTdm requires
- A database is optional (for comments/ratings/tags)
 - Or, just don't use them
- Installation & setup should take <20 minutes (and it's not hard)
- Your existing templates are not affected

Commitment

- UNLV's commitment
 - It's our technical foundation for the foreseeable future
 - Hopefully, open-source will popularize it
- Your commitment
 - No real risk involved
 - Reasonable to move over incrementally; start with just one template set & see how it goes

What dmBridge can & can't do

- dmBridge can:
 - (See the preceding slides!)
- dmBridge can't:
 - Design your web pages for you
 - Install itself
- Accommodate every conceivable usage scenario out of the box
 - (Feedback!)

Availability

- Beta tests can start soon
- Release 1.0 when it's ready
- Open-source means help out if you can
 - Ideas & suggestions
 - Bug reports
 - Tips & tutorials
 - Code development, refinement, & testing
 - Networking

Thank you!

- dmBridge
 - alex.dolski@unlv.edu
 - digital.library.unlv.edu/software/dmbridge
- dmMonocle (image viewer)
 - brian.egan@unlv.edu
 - digital.library.unlv.edu/software/dmmonocle