

Leveraging Standards: Improving the WebDAV experience... NOW!

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Motivation

- WebDAV has been a second-class citizen
- Bulk-loading of Content
 - PLIP 44
- Tight Desktop Integration
- The hooks are mostly there
- It is nice to follow standards
- ... though sometimes it can be a pain!

State of Affairs

- Zope had WebDAV for quite some time
- It integrates with stuff like PropertySheets
- ... which no one uses anymore ;(
- Implements the protocol to a good extent
- Mostly passes the Litmus test

State of Affairs

- CMF has the Content Type Registry
- Underused, mostly forgotten
- Doesn't use PropertySheets!

Controlling Content Creation (3C)

- Content Type Registry
 - Provides a hook for controlling what object gets created
 - Default predicates are quite poor
 - Most tools don't meet minimum standards

Controlling Content Creation (3C)

- Content Type Registry
 - Somewhat extensible
 - Inspect contents instead
 - Maybe mime-type detection?

Importing and Exporting

- Most new products rely on Archetypes
- Concepts from Zope 3
- Standard base
- Introspectible Schema
- Future-proof

Importing and Exporting

- Concept of “Layers”
- Marshalling
- Default use: WebDAV
- Other Uses?

Importing and Exporting

- Marshalling
 - Controllable
 - ... but not enough
 - Only one Marshaller per Schema
- Marshall
 - Controlled Marshaller
 - Marshaller Registry
 - Same pattern as Content Type Registry

Defining a standard: ATXML

- Default Marshallers
 - Primary Field
 - RFC 822
- Mostly backwards-compatible
- Too weak for structured data
 - References
 - Metadata

Defining a standard: ATXML

- Structured? XML!
- Existing libraries
 - minidom
 - PyXML
 - libxml2

Defining a standard: ATXML

- Features
 - Future-proof
 - Validation
 - A XML Schema
 - RelaxNG
- Our Choice: libxml2

Defining a standard: ATXML

- References
 - UID
 - Path
 - Metadata
 - Recursive Definition
- Future
 - RelaxNG from Archetypes Schema

Information. Exposed.

- WebDAV and Namespaces
- Zope: PropertySheets
- DAV
 - Virtual PropertySheet
 - Not quite extensible
 - Enters “structured monkey-patching”

Information. Exposed.

- Property Set Registry
 - Same pattern as Content Type Registry
 - Same as Marshaller Registry
 - Familiar Patterns have a Better Chance
- Expose Dublin Core Metadata
- Expose other info on new namespaces
- Improvements to “davlib”
 - PEP 268

Where to next...

- Zope 3
- Nautilus Plugin
- Growing the base
 - Archetypes Predicate
 - iCalendar Marshaller from Calendaring
 - Other Standards?

References

- WebDAV <http://webdav.org/>
- Greg Stein's davlib <http://www.lyra.org/greg/python/davlib.py>
- RFC 2518 – HTTP Extensions for Distributed Authoring WEBDAV <http://www.faqs.org/rfcs/rfc2518.html>
- PEP268 – Extended HTTP functionality and WebDAV <http://www.python.org/peps/pep-0268.html>
- PLIP44 – Bulk loading of external content into Archetypes–based objects <http://plone.org/development/plips/plip44>
- Enfold Repository
SVN: <http://svn.enfoldsystems.com/public>
ViewCVS: <http://svn.enfoldsystems.com/browse/public>

Thanks!

- Enfold Systems
- Mark Hammond
- Zope Europe (ZEA)
- ZopeMag (Peter Germain and Mark Pratt)
http://www.zopemag.com/Issue009/Section_Articles/article_PloneWebDAV.html