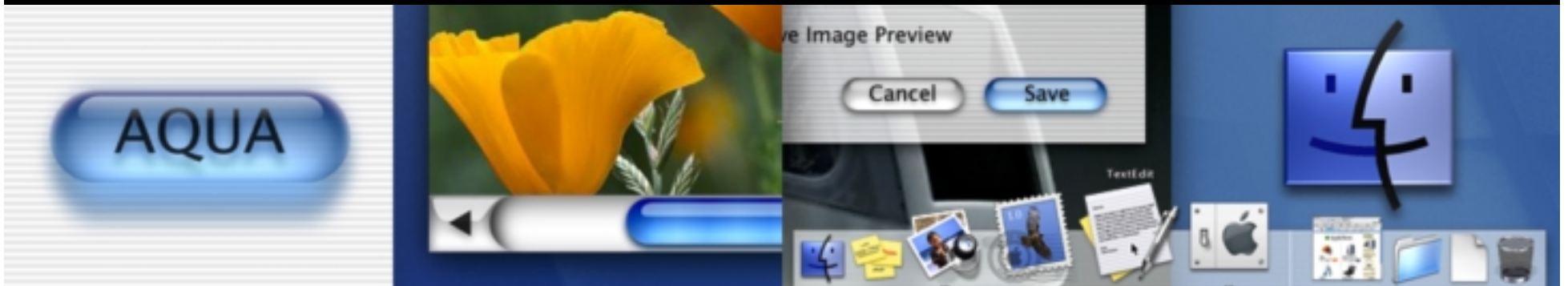




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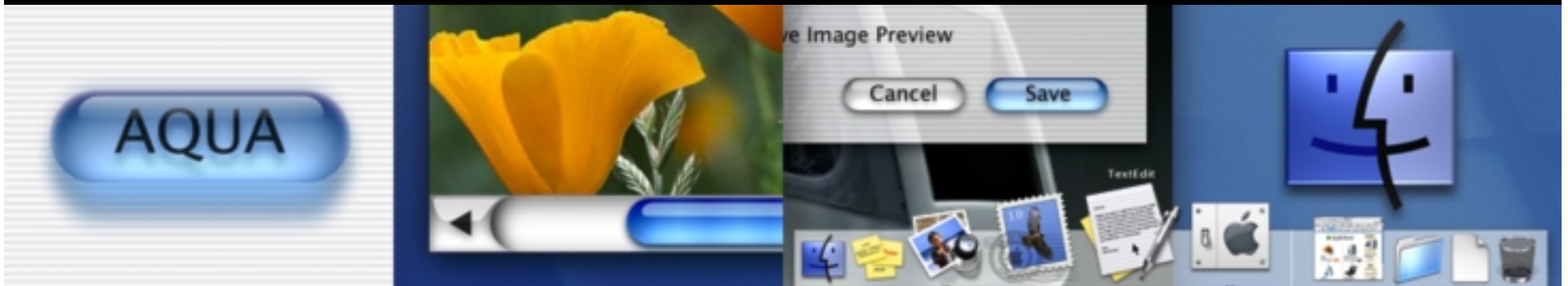
WebObjects and XML





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WebObjects and XML



Timothy Joransen
Senior Systems Engineer, Apple iServices

Introduction

- Basics to XML
- Mechanics of XML and WebObjects
- Encoding/Decoding
- Server to Server
- Example: Content Syndication



Basics of XML

- Back to the content
- Tagged system
- “Plain” text
- Basics are easy to learn
- Widespread acceptance for data interchange



Sample XML File

```
<model>  
  <entity name="RentalItem" xmlTag="rental">  
    <property name="qty" xmlTag="quantity" attribute="YES"/>  
    <property name="movie" xmlTag="movie"/>  
    <property name="customer" xmlTag="customer"/>  
  </entity>  
  <entity name="MyMovie" xmlTag="movie">  
    <property name="title" xmlTag="name" attribute="YES"/>  
    <property name="dateReleased" xmlTag="date"/>  
    <property name="roles" xmlTag="role"/>  
    <property name="category" xmlTag="cat"/>  
  </entity>  
</model>
```



Mechanics of XML and WO

- WO both client and server
 - WOMessage
 - WORequest
 - WOResponse
- WOXMLCoder/WOXMLDecoder
- IBM's XML Parser



Encoding

- Object → XML in a single method
- NSArray, NSDictionary, Enterprise Objects
- Custom encoder methods
 - Custom Types
 - Avoiding the “whole graph”
- Mapping File



Encoding—Samples

```
String xmlString = WOXMLCoder.coder().  
    encodeRootObjectForKey(movieArray, "movie");
```

```
WOXMLCoder coder;  
coder = WOXMLCoder.coderWithMapping(mappingFileURL);  
String xmlString= coder.encodeRootObject (movieArray,  
    "movie");
```



Encoding—Mapping File

```
<model>  
  <entity name="RentalItem" xmlTag="rental">  
    <property name="qty" xmlTag="quantity" attribute="YES"/>  
    <property name="movie" xmlTag="movie"/>  
    <property name="customer" xmlTag="customer"/>  
  </entity>  
  <entity name="MyMovie" xmlTag="movie">  
    <property name="title" xmlTag="name" attribute="YES"/>  
    <property name="dateReleased" xmlTag="date"/>  
    <property name="roles" xmlTag="role"/>  
    <property name="category" xmlTag="cat"/>  
  </entity>  
</model>
```



Decoding

- XML → Object in a single method
- Mapping file
- SAX and DOM
- Example: RelatedLinks
- Pitfall to avoid: attribute vs. array of one



Server-to-Server Communication

- Data interchange/transfer
- Remote method invocation
 - XML/RPC
 - SOAP
- EDI
- Content Management
- Content Syndication



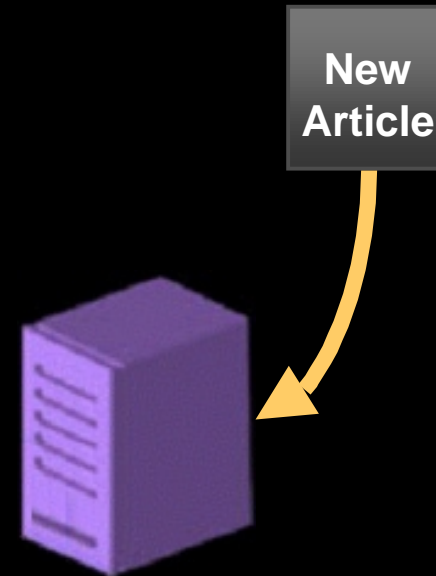
Example: Content Syndication

- Many “standards”
 - ICE, WDDX, XML-RPC
- The flow
 - Push
 - Poll



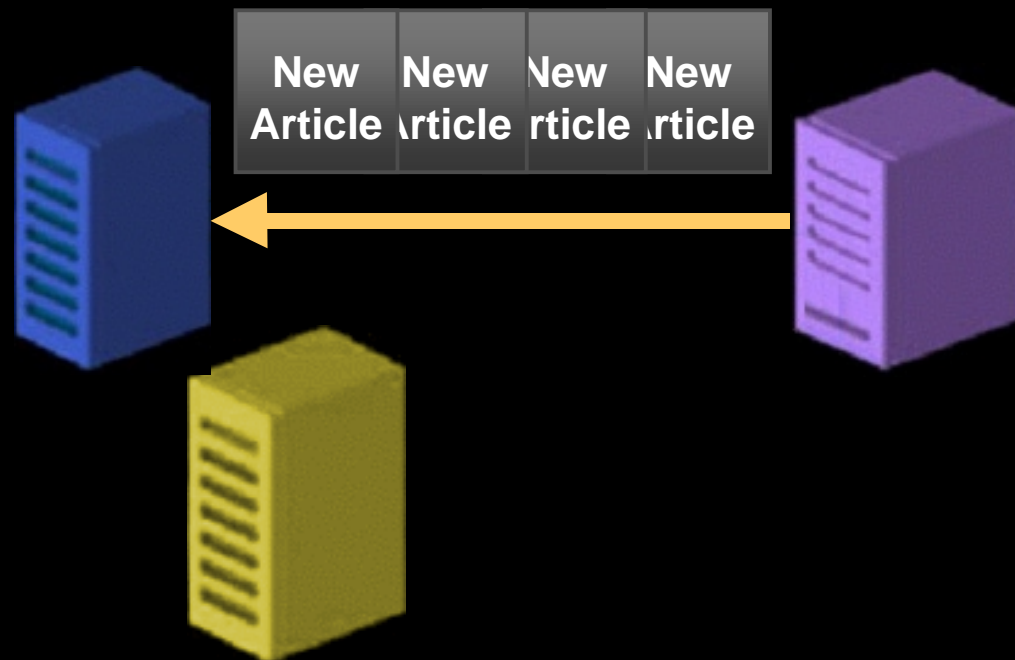
"Push" Syndication

- Content server gets new article



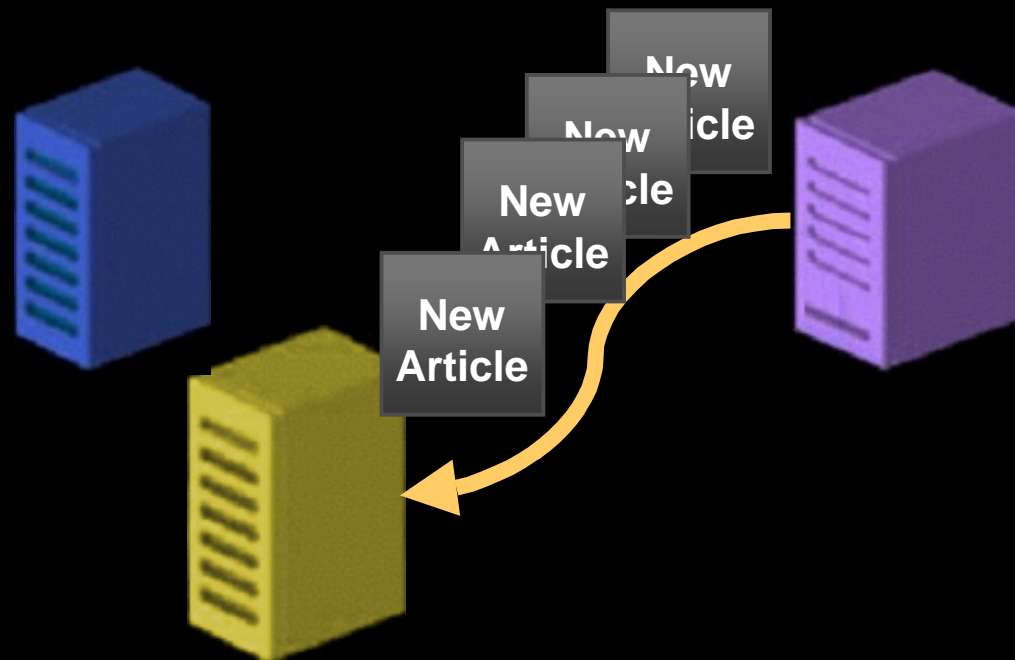
"Push" Syndication

- New article added to content server
- Content server posts article to all "subscribers"



“Push” Syndication

- New article added to content server
- Content server posts article to all “subscribers”



“Poll” Syndication

- “Client” periodically asks for new articles



“Poll” Syndication

- “Client” periodically asks for new articles



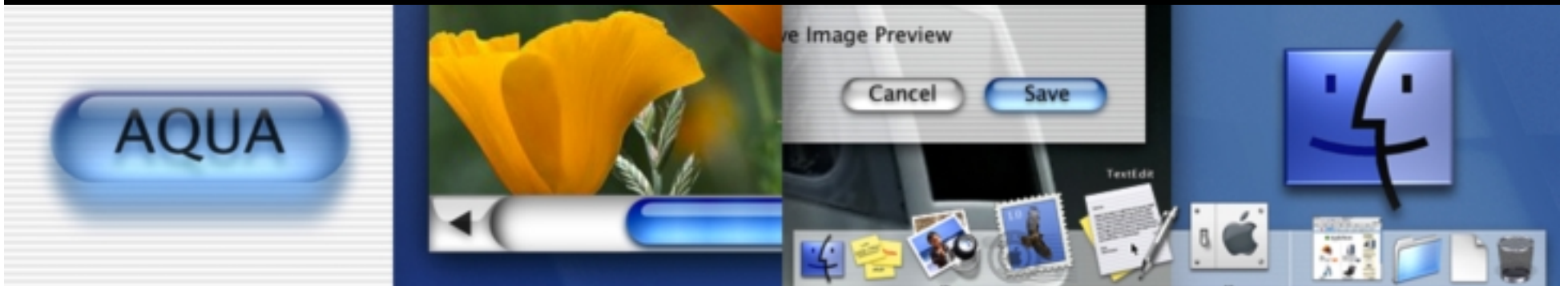
“Poll” Syndication

- “Client” periodically asks for new articles
- “Server” responds to new article request





DEMO



Content Syndication
Michael Leong

Component Model

- WebObjects Components
- WebObjects Builder
- WOGenericContainer, WOXMLNode
- Easiest way to learn
- Don't forget:



Component Model

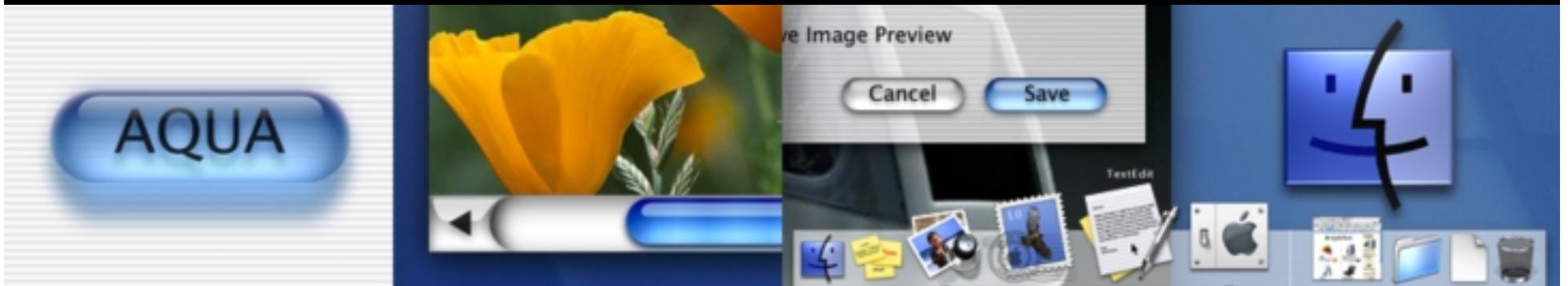
- WebObjects Components
- WebObjects Builder
- WOGenericContainer, WOXMLNode
- Easiest way to learn
- Don't forget:

```
// We need to set the mime type to "text/xml"  
public void appendToResponse(WOResponse response, WOContext context)  
{  
    super.appendToResponse(response, context);  
    response.setHeader("text/xml", "content-type");  
}
```





DEMO



Component Use: SMIL
Ron Lue-Sang

WebObjects and XML

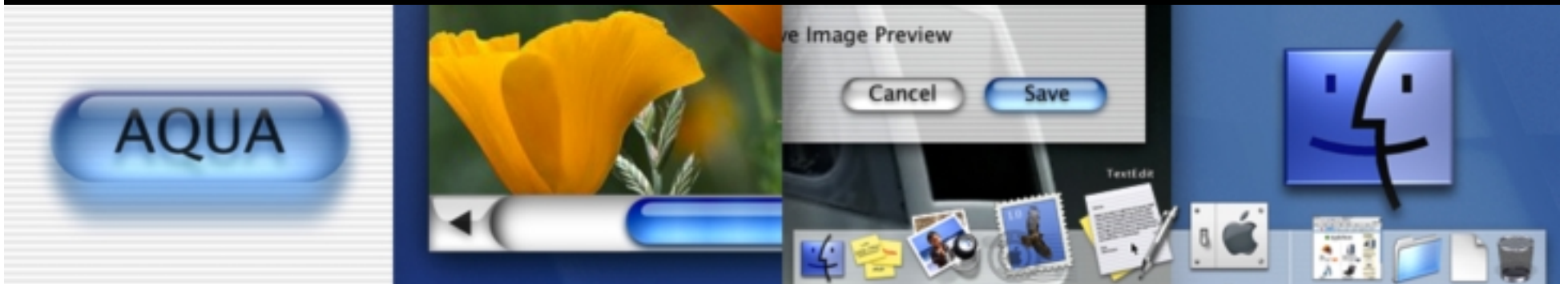
- Vendor AND Consumer
- Easy encoding/decoding
- Mapping files for DTD adherence
- Used within WebObjects product
- Used by many developers/solutions





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Q&A



Michael Leong
WebObjects Engineer

Roadmap

915 Feedback Forum:
WebObjects

Room J2
Fri., 3:30 p.m.



Who to Contact

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WWDC

Worldwide Developers Conference 2000



Think different.