Making the Most out of uPortal Channel Types

Cris J. Holdorph

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UNICON

Topics:

1. Overview of uPortal Channel Types
2. Image Channel
3. Applet Channel
4. Inline Frame Channel
5. RSS Channel
6. XML XSLT Channel
7. Web Proxy Channel (up2 Channel)
8. Web Proxy Portlet (up3 Portlet)
  – Other Options (WSRP, Custom, 3rd party)
10. Summary

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Overview of uPortal Channel Types

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Definitions

- uPortal
  - Portals are about Content and Application Aggregation
- Channel
  - Framework for applications running in uPortal
- Portlet
  - JSR 168 – Java Community Process standard for applications running in portals
- WSRP
  - Web Services for Remote Portlets

uPortal Pre-defined Channel Types

Workflow: Channel Type → General Settings → Channel Controls — Categories — Groups — Review

Channel Type: Select the type of channel to add by clicking a select icon in the option column

Option	Channel Type	Description
⦿	**Custom**	This channel type allows the publication of channels with no accompanying CPD (Channel Publishing Document). It is typically used to publish channels with only one corresponding channel definition.
○	**Applet**	Displays a java applet
○	**Bookmarks Portlet**	UWisc Bookmarks Portlet
○	**Image**	Displays an image with optional caption and subcaption
○	**Inline Frame**	Renders an HTML page within a frame. Not supported in browsers older than Internet Explorer 5 and Netscape 6.
○	**Portlet**	Adapter for JSR-168 Portlets
○	**RSS**	Renders content provided in the popular RSS (Rich Site Summary) format
○	**SQL**	Executes a SQL query against a selected DataSource.
○	**Version**	Displays the version number of a specified portal component.
○	**Web Proxy**	Incorporates a dynamic HTML or XML application
○	**WSRP Consumer**	WSRP consumer implementation
○	**XML SSL**	Transforms an XML document into a fragment of markup language given a set of XSLT stylesheets specified in a uPortal stylesheet list (SSL) file.
○	**XML XSLT**	Transforms an XML document into a fragment of markup language using a single XSLT.

Next >   Review   Cancel

Image Channel

Review: Please review the settings for accuracy (click workflow icons or items in the table below to edit settings)

User can modify?	Name	Value
	Channel Type:	Image
	Channel Title:	Daily Business Cartoon
	Channel Name:	Daily Business Cartoon
	Channel Functional Name:	daily-business-cartoon
	Channel Description:	Daily Business Cartoon by Ted Goff, www.tedgoff.com
	Channel Timeout:	30000 milliseconds
	Channel Secure:	☐
☐	**Image border (pixels)**	0
☐	**Image height (pixels)**	300
☐	**Image link**	http://www.tedgoff.com
☐	**Image URI**	http://www.tedgoff.com/mb/images/today.gif
☐	**Image width (pixels)**	300
	Channel Controls	☐ Editable ☐ Has Help ☐ Has About
	Selected Categories:	🗀 Entertainment 🗀 CImage
	Selected Groups and/or People:	🔓 Everyone

[< Back] [Finished] [Cancel]

Image Chanel

- What do you need?

  – URL to the image

- Pros

  – Easiest type of channel to set up

  – Displays an image very quickly and very simply

- Cons

  – Doesn't do anything except display an image

  – Doesn't account for any user groups or permissions

- Notes

  – The user's browser will request the image (not the server)

Applet Channel

Workflow: Channel Type | General Settings | Configuration | Dimensions | Parameters | Channel Controls | Categories | Groups | ▷ Review

Review: Please review the settings for accuracy (click workflow icons or items in the table below to edit settings)

User can modify?	Name	Value
	Channel Type:	Applet
	Channel Title:	Minesweeper
	Channel Name:	Minesweeper
	Channel Functional Name:	minesweeper
	Channel Description:	Minesweeper applet
	Channel Timeout:	10000 milliseconds
	Channel Secure:	☐
☐	**Code**	jmapplet.class
☐	**APPLET.cols**	8
☐	**Archive**	javamine.jar
☐	**Width**	152
☐	**APPLET.marks**	true
☐	**Height**	195
☐	**Code Base**	http://nrr.dnsalias.net/javamine
☐	**APPLET.graphics**	true
☐	**APPLET.rows**	8
☐	**APPLET.level**	beginner
☐	**APPLET.type**	vapplication/x-java-appletalue
☐	**APPLET.mines**	10
	Channel Controls	☐ Editable ☐ Has Help ☐ Has About
	Selected Categories:	🗀 Games
	Selected Groups and/or People:	🗎 Everyone

[< Back] [Finished] [Cancel]

Applet Channel

- What do you need?

  - URL to the Applet

- Pros

  - Nearly as easy to set up as the Image Channel

  - Some Applets work great inside a Channel "Window"

- Cons

  - Doesn't work for anything except Applets

  - Doesn't account for any user groups or permissions

- Notes

  - The user's browser will request the applet (not the server)

Inline Frame Channel

Workflow: [Channel Type] [General Settings] [Inline frame parameters] [Channel Controls] [Categories] [Groups] ▷ [Review]

Review: Please review the settings for accuracy (click workflow icons or items in the table below to edit settings)

User can modify?	Name	Value
	Channel Type:	Inline Frame
	Channel Title:	uPortal Home Page
	Channel Name:	uPortal Home Page
	Channel Functional Name:	uportal-home-page
	Channel Description:	uPortal Home Page channel
	Channel Timeout:	20000 milliseconds
	Channel Secure:	☐
☐	**Frame Height (pixels)**	800
☐	**URL**	http://uportal.org/
	Channel Controls	☐ Editable ☐ Has Help ☐ Has About
	Selected Categories:	📁 uPortal
	Selected Groups and/or People:	🔓 Everyone

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Inline Frame Channel

- What do you need?

  - URL to a web site

- Pros

  - Easy to set up

  - Allows lot of websites, even with complicated Javascript to still work

- Cons

  - Inline Frames are frowned upon (e.g., nested scrollbars)

  - Doesn't account for any user groups or permissions

  - Portal can not track user's state within the frame

- Notes

  - The user's browser will talk to the *framed* site (not the server)

RSS Channel

Workflow: [Channel Type](#) [General Settings](#) [Provide URL and select options.](#) [Restrict RSS URI](#) [Channel Controls](#) [Categories](#) [Groups](#) ▷ [Review](#)

Review: Please review the settings for accuracy (click workflow icons or items in the table below to edit settings)

User can modify?	Name	Value
	Channel Type:	RSS
	Channel Title:	Salon.com
	Channel Name:	Salon.com
	Channel Functional Name:	salon.com
	Channel Description:	Salon.com channel
	Channel Timeout:	10000 milliseconds
	Channel Secure:	☐
☐	**RSS URL**	http://www.salon.com/feed/RDF/salon_use.rdf
	Channel Controls	☐ Editable ☐ Has Help ☐ Has About
	Selected Categories:	📁 News
	Selected Groups and/or People:	🔓 Everyone

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RSS Channel

- What do you need?

  - URL to an RSS feed

- Pros

  - Easy to set up

  - RSS feeds are extremely common these days

- Cons

  - Limited customization for displaying the feed data

  - Will not display images associated with feed data

  - RSS is not an official standard

- Notes

  - The uPortal server will request the RSS feed

XML XSLT Channel

Workflow: Channel Type | General Settings | Provide XML and stylesheet list file URIs | Restrict XML URI | Channel Controls | Categories | Groups | ▷ Review

Review: Please review the settings for accuracy (click workflow icons or items in the table below to edit settings)

User can modify?	Name	Value
	Channel Type:	XML SSL
	Channel Title:	CSS Viewer
	Channel Name:	CSS Viewer
	Channel Functional Name:	css-viewer
	Channel Description:	CSS Viewer channel
	Channel Timeout:	5000 milliseconds
	Channel Secure:	☐
☐	**Stylesheet list file (.ssl) URI**	CGenericXSLT/CSSViewer/CSSViewer.ssl
☐	**XML URI**	CGenericXSLT/CSSViewer/cssViewer.xml
	Channel Controls	☐ Editable ☑ Has Help ☐ Has About
	Selected Categories:	🗀 uPortal
	Selected Groups and/or People:	🔓 Developers

[< Back] [Finished] [Cancel]

XML / XSLT Channel

- What do you need?

  - URL to an XML document

  - Path to an XSL stylesheet

- Pros

  - Allows the Portal to control the *look and feel*

  - uPortal is already heavily XSL based (including the skin/theme)

- Cons

  - Generally requires you to control both sides of the content

  - Hard to do *multi-page applications*

- Notes

  - The uPortal server will request the RSS feed

Web Proxy Channel

- ## What do you need?

  - Application URI (cw_xml)

    - This is the main URL/URI you want to proxy

  - Pass-through Type (cw_passThrough)

    - Use the value **all** to allow links clicked on to stay within the portal

    - Use the value **none** to force any links clicked on to go to that URL

  - Application SSL (cw_ssl)

    - The default value of XHTML.ssl is fine for most situations

  - Enable HTML Filter? (cw_tidy)

    - The value **on** should be used unless it causes problems

    - Use the value **off** only if the **on** value does not work

Web Proxy Channel

Workflow: Channel Type | General Settings | Web proxy parameters | URI restriction parameters | Channel Controls | Categories | Groups | ▷ Review

Review: Please review the settings for accuracy (click workflow icons or items in the table below to edit settings)

User can modify?	Name	Value
	Channel Type:	Web Proxy
	Channel Title:	Tomcat's Servlet Examples
	Channel Name:	Tomcat's Servlet Examples
	Channel Functional Name:	tomcat-servlet-examples
	Channel Description:	Tomcat's Servlet Examples
	Channel Timeout:	10000 milliseconds
	Channel Secure:	☐
☐	**Application URI (cw_xml)**	http://localhost:8080/servlets-examples/index.html
☐	**Pass-through Type (cw_passThrough)**	all
☐	**Info URI (cw_info)**	examples/servlet_info.html
☐	**Edit URI (cw_edit)**	examples/servlet_edit.html
☐	**Application SSL (cw_ssl)**	XHTML.ssl
☐	**Help URI (cw_help)**	examples/servlet_help.html
☐	**Enable HTML Filter? (cw_tidy)**	on
	Channel Controls	☑ Editable ☑ Has Help ☑ Has About
	Selected Categories:	uPortal
	Selected Groups and/or People:	Developers

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Web Proxy Channel

- Pros
  - Allows the Portal to track a user's state in the *proxied application*
  - Allows for user data to be passed to proxied application

- Cons
  - Might require you to control both sides of the content
  - Look and Feel of the content may not blend with Portal
  - Javascript can severely impact the channel
  - Proxying is more prone to cross-site scripting attacks

- Notes
  - The uPortal server will request the proxied web application

Web Proxy Portlet

- Originally created for the University of Wisconsin Portal

- Made available to the uPortal 3 project as a replacement for the uPortal 2 Web Proxy Channel

- Due to its standards compliant portlet nature, the uPortal 3 Web Proxy Portlet is usable in uPortal 2

Even More Web Proxy

- PortletBridge Portlet (Sourceforge)

  – No release for over 1 year

  – http://www.portletbridge.org/

- WebClipping Portlet (Jahia)

  – http://www.jahia.org/jahia/page825.html

Custom Channel

- ## What do you need?

  - ### Channel Class

    - Your channel class will either need to produce HTML or produce XML and specify the XSL stylesheet to use

- ## Useful if you need access to uPortal Framework APIs

Custom Portlet

- What do you need?

  - A custom Portlet war file deployed with the uPortal deployPortletApp task

  - Portlet Definition ID

    web application name + . + portlet name (portlet.xml file)

  - Any Portlet Preferences that may be required

  - Does the Portlet need the EDIT or HELP modes to function?

Other uPortal 2.6 Channel Types

- Bookmarks Portlet

- JSP

- SQL

- Version

- WSRP Consumer

- XML SSL

- Toro Gateway SSO Portlet
  - http://code.google.com/p/toro-portlets/

Summary

Summary (1)

- Use Image, RSS or Applet Channel Types if that is what you are aggregating. Other then the small scope of what they can support there is very little downside to aggregating with these channel types.

- Only create a custom channel or portlet if absolutely necessary. Quite often you can accomplish what you need without writing any Java code.

Come to the **Portlet vs Channel Smackdown** *talk on Wednesday at 9:45am to find out which one you should use.*

- Consider using XML XSLT channel type if the content you are aggregating is already XML or can be converted to XML easily and the data is limited to only one URL.

- Use an IFRAME channel type if you must support Javascript for the proxied application

- Use CWebProxy channel type if you do not need to support Javascript

- Use a WebProxy Portlet if you are comfortable creating your own Portlet Web Application Archives

- Write a custom **portlet** or channel when nothing else meets your needs

Summary (3)

- uPortal can be used to create a compelling portal destination aggregating a lot of content without writing any code

Questions?

Cris J. Holdorph

holdorph@unicon.net

www.unicon.net