

Cache Settings in Web Page Composer



Applies to:

EP 7.0, SAP NetWeaver Knowledge Management SPS14. For more information, visit the [Content Management homepage](#).

Summary

This paper explains what cache settings can be done to achieve optimal performance for WPC.

Author: Raluca Moraru

Company: SAP Deutschland AG & Co KG

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Author Bio

Raluca Moraru works as a consultant in SAP Deutschland AG & Co KG. Her main focus is the NetWeaver Portal Knowledge Management as well as Web Page Composer.

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Introduction

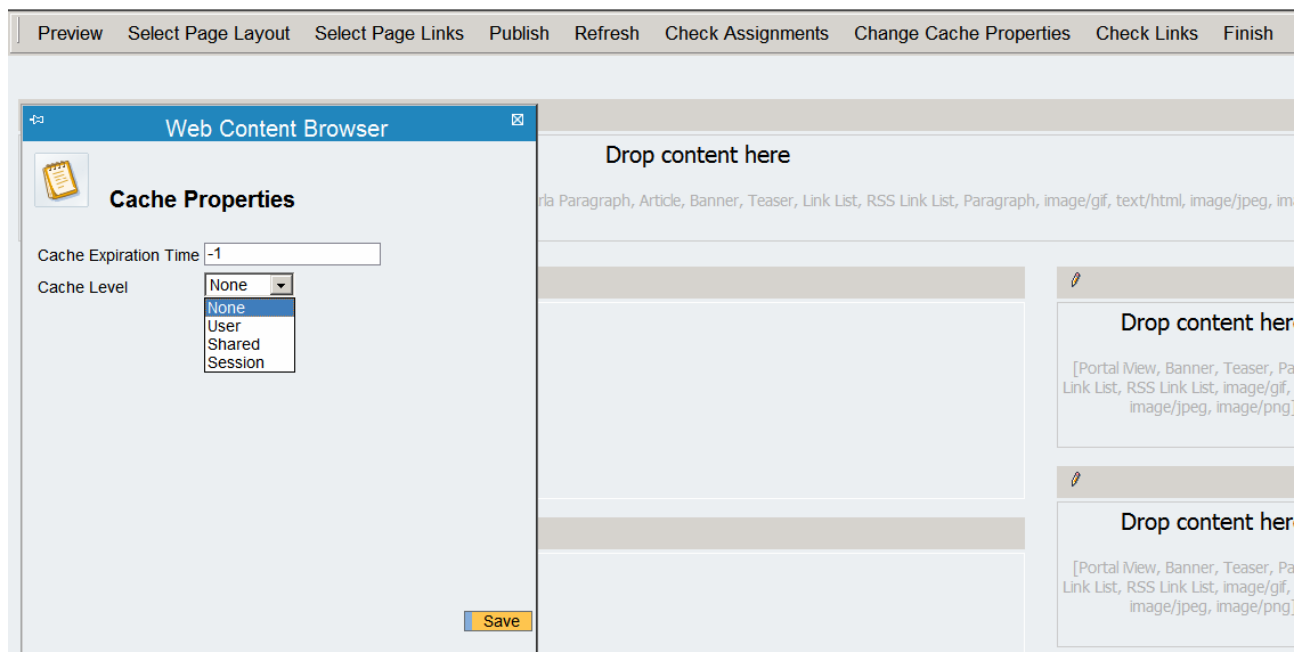
The Web Page Composer (WPC) is a light weight tool for creating web content in the portal. WPC is used for producing high performance light content for intranets or extranets. To ensure the optimal performance for the web content during runtime, there are several cache settings that can be used. WPC is based on standard Portal and KM technology and therefore many of the existing cache functionalities can be used.

This paper is an overview of the different cache service that can be used with WPC. Given the multitude of such services, it is advisable to use the cache settings with care to make sure content is not cached twice in your system.

The Portal Page Cache

The portal page cache can be set at the level of the whole page and it is used to cache the whole content on the page at runtime. Please note that this cache service is only effective during runtime.

To set up the portal page cache you can use the *WPC page toolbar menu > Change Cache Properties*:



Please note that it only makes sense to use this cache if the page contains only static content that can and should be cached. If the page contains dynamic content like iViews you should not use this cache setting.

This cache setting has the biggest impact on performance and is therefore the most effective. When applicable, it is advisable to use it as much as possible. For this reason, the portal page cache overrides all other cache settings in case some objects are cached by other mechanisms.

The Editor Service Cache

The editor service cache is a KM cache mechanism used to cache the HTML web content, i.e. the result from the XSLT transformation. As background information, the web page composer content items (e.g. article) are maintained in design time as XML files which are transformed through XSL Transformations in HTML for the runtime.

Unlike the above mentioned cache mechanisms, this cache service leads to design time performance improvements at the level of the page editor. Please note that at the level of the XML editor Framework the web content is still in XML format so this cache does not apply so early in the life cycle.

The name of the editor service cache is dependent on the portal alias used and is configured in: *System Administration > System Configuration > Knowledge Management > Content Management > Web Page Composer > Editor > Caches*. The default cache is the **portal_editor_content**:

Content Management

Detailed Navigation

- System Landscape
- Floating Aliases
- Keystore Administration
- UME Configuration
- Service Configuration
- Knowledge Management
 - Content Management**
 - Index Administration
 - Collaboration
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 - Web Dynpro Console

Related Links

- Repositories
- Component Monitor
- System Administration Repor

Content Management

Actions History Mode Help

Topic Area:

Configuration
 Content Management
 Web Page Composer
 Editor
 Caches

Topics

Editor Caches (2)

Define Editor Caches

Define Editor Caches

Name	Cache	Alias
portal	portal_editor_content	portal
wpc	wpc_editor_content	wpc

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New Duplicate Edit View Delete

View "portal"

Cache: portal_editor_content
 Alias: portal

Edit Close

The settings for the editor service cache are to be made in *System Administration > System Configuration > Knowledge Management > Content Management > Utilities > Caches > Memory Cache*:

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Portal Favorites

- Content Management
- KM Content

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Topics

Memory Cache (42)
 Persistent Cache

Memory Cache

Memory caches keep data in the main memory. They are used extensively by CM repositories for caching various kinds of data. They are also used for caching ACLs, application properties, and data managed by utilities such as the JDBC ID mapper.

Name: portal_editor_content Apply Filter Objects per Page: 8

Name	Restart lifetime on access	Capacity	Default Time-to-Live	Singleton	Assumed Entry Size	Max Cache Size	Max
portal_editor_content		10000	0	✓	0	0	

Page

New Duplicate Edit View Delete

View "portal_editor_content"

Restart lifetime on access:

Capacity: * 10000 entries

Default Time-to-Live (0=infinite): * 0 seconds

Singleton: +

Assumed Entry Size: * + 0 bytes

Max Cache Size (0=unlimited): * + 0 bytes

Max Entry Size (0=unlimited): * + 0 bytes

Edit Close (+ denotes advanced options)

Please note that it does not make sense to use the editor service cache and the portal runtime cache for the same web content items because the content might be cached twice in some situations.

The WPC Navigation Cache

The WPC Navigation cache is used for caching the WPC site navigation structure and its name. It is defined under in *System Administration > System Configuration > Knowledge Management > Content Management > Utilities > Caches > Memory Cache* and it is called `wpc_navigationtree`.

The screenshot displays the SAP Web Page Composer interface. On the left, a navigation pane shows the path: **Content Management** > **Detailed Navigation** > Knowledge Management > **Content Management** > Utilities > Caches. The main area is titled 'Content Management' and shows the configuration for the 'wpc_navigationtree' Memory Cache.

Memory Cache
Memory caches keep data in the main memory. They are used extensively by CM rep kinds of data. They are also used for caching ACLs, application properties, and data JDBC ID mapper.

Name: Objects per Page:

<input type="checkbox"/>	Name	Restart lifetime on access	Capacity	Default Time-to-Live	Si
<input type="checkbox"/>	wpc_navigationtree		100	0	

View "wpc_navigationtree"

Restart lifetime on access:

Capacity: * entries

Default Time-to-Live (0=infinite): * seconds

Singleton: +

Assumed Entry Size: * + bytes

Max Cache Size (0=unlimited): * + bytes

Max Entry Size (0=unlimited): * + bytes

(+ denotes advanced options)

This cache has an impact during the navigation phase when the user clicks a link containing a navigation target URL parameter.

Use this cache with care in cases when you reuse navigation structures in different locations during the portal content creation because the navigation cache might prevent the correct allocation of the different navigation nodes until the navigation cache expires.

The WPC navigation cache has the same purpose as the standard well-known portal navigation cache but it is specific for WPC. For technical reasons, there are some inconsistencies between the portal navigation caching infrastructure and the WPC navigation connector and it is therefore required to disable the portal navigation cache for the WPC Navigation Connector. This cache can be disabled *from System Administration > Navigation > Navigation Cache*:

The screenshot shows the 'Navigation Cache' configuration page. The left sidebar has 'Navigation Cache' selected under 'Detailed Navigation'. The main content area has a title 'Navigation Cache' and a description: 'To improve performance, the portal caches the navigation entry points and navigation nodes required by a user. If a user has access to the same navigation hierarchy as a previous user, the portal can retrieve the navigation hierarchy from the cache instead of generating it again. Use this interface to configure the navigation caching mechanism.'

Under 'Cache Management', there are buttons for 'Enable All', 'Disable All', 'Clear Cluster Cache', 'Clear Local Cache', and 'Synchronize Cache'. Below this is a table titled 'Navigation Connectors' with the following data:

Name	Status	Connector Cache
CollaborationConnector	Disabled	Clear Cluster Cache Clear Local Cache Synchronize Cache Configure Show Content Statistics
ROLES	Disabled	Clear Cluster Cache Clear Local Cache Synchronize Cache Configure Show Content Statistics
gpn	Disabled	Clear Cluster Cache Clear Local Cache Synchronize Cache Configure Show Content Statistics
wpcnavigation	Disabled	Clear Cluster Cache Clear Local Cache Synchronize Cache Configure Show Content Statistics

At the bottom right of the table area, it says 'Line 1 / 4'.

The WPC navigation cache should always be enabled in a productive system where the navigation structures are stable.

The Client Cache Service

The client cache service is a KM caching mechanism that uses the browser HTTP caching mechanism. So, unlike the previously mentioned cache service, this service is used for client/browser caching.

This caching service is not related to the WPC in particular. It is a standard caching mechanism suitable for caching unchanged KM content like mimes or pictures.

To use this cache service you have to define a cache pattern where you can specify the folder contents and meta types of the objects to be cached as well as the timeout of the cache.

For configuring this client cache service go to: *System Administration > System Configuration > Knowledge Management > Content Management > Global Services (Advanced) > Client Cache patterns*

The screenshot shows the SAP Web Page Composer interface for configuring Client Cache Patterns. The left sidebar contains navigation menus for Content Management, Related Links, and Portal Favorites. The main content area is titled 'Client Cache Patterns' and shows a table of pattern definitions. The table has columns for Name, Path Prefix, Mime Types, Cache Timeout, and Read Only. One pattern named 'etcPattern' is listed with a path prefix of '/etc/public/mimes/images' and a cache timeout of 432000 seconds. Below the table, there are buttons for 'New', 'Duplicate', 'Edit', 'View', and 'Delete'. The 'View' button for the 'etcPattern' is highlighted, and a 'View "etcPattern"' dialog box is open, showing the configuration details for that pattern: Path Prefix: /etc/public/mimes/images, Mime Types: (empty), Cache Timeout: 432000 seconds, and Read Only: (unchecked). There are 'Edit' and 'Close' buttons at the bottom of the dialog.

Name	Path Prefix	Mime Types	Cache Timeout	Read Only
<input type="checkbox"/> etcPattern	/etc/public/mimes/images		432000	

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View "etcPattern"

Path Prefix: * /etc/public/mimes/images

Mime Types:

Cache Timeout: * 432000 seconds

Read Only:

You should use this service to cache different mimes and pictures used in you WPC web content.

Please note that this cache has no effect is caching is disabled on the user browser.

Related Content

[WPC Blog on SDN](#)

For more information, visit the [Content Management homepage](#).

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