

**How-to Guide
SAP NetWeaver '04**



How To... Modify the Portal Framework Page in SAP EP 6.0

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**Applicable Releases:
SAP NetWeaver SP2 and higher (SAP NetWeaver '04)**

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Document History

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V 1.00 12.2004	First official release of document

1 Framework Page Overview

1.1 Document Objectives

This document provides general guidelines for portal administrators and developers who may need to edit or modify the framework page or the iViews it contains. It describes the various aspects of the framework page, and its iViews, that can be customized, as well as defining which customization methods are acceptable and will be supported.

The document does not provide all technical details. For specific information, refer to the links provided throughout the document.

This guide contains references to the NetWeaver Portal Administration Guide; see *SAP Help Portal at help.sap.com > Documentation > SAP NetWeaver > SAP NetWeaver 04 > People Integration > Portal > Administration Guide*.

1.2 Introduction and Terminology

The default framework page supplied with the NetWeaver 04 portal provides the navigational and structural "components" for operating the portal. It is the entry page of the portal.

As any other portal page, the framework page can:

- Display portal content
- Be modified and customized

Note: Customizing the framework page without adhering to the guidelines in this document could cause unexpected issues in portal functionality, ranging from problems with iView rendering to harming the portal navigation capabilities.

This section contains only a short description of the framework page and the iViews it contains. For a detailed overview refer to *...> Administration Guide > Super Administration > Standard Portal Content > Default Portal Display Objects*.

The framework page contains the following iViews:

Masthead: Controls the header area of any portal page.

Tools Area: The tools area appears only if you have Knowledge Management (KM) installed with your portal, and if its visibility property is set to true. It contains:

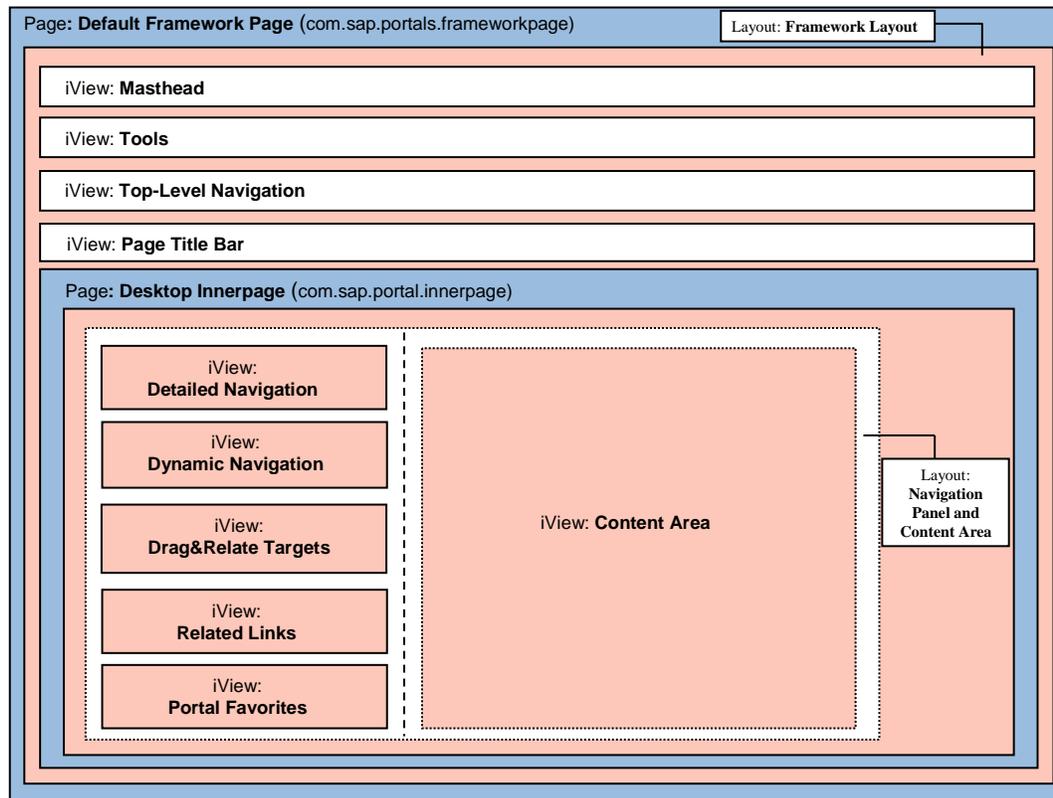
- A Collaboration link to the optional Collaboration Launch Pad.
- A Search tool for searching Knowledge Management (KM) data repositories

Top-Level Navigation (TLN): This iView displays the top-level navigation nodes, based on the user navigation hierarchy. The iView also provides framework page functionality, for example, it handles navigation events. Generally speaking, this iView should not be removed or rewritten, although in some configurations its visibility state might be set to hidden. For more information, see *...> Administration Guide > Content Administration > Navigation > Top-Level Navigation*.

Page Title Bar: This iView displays the inner page title bar. It contains the page tray, the navigation history links, and the navigation breadcrumb UI, which, by default, is hidden. For more information, see ...> *Administration Guide* > *Content Administration* > *Navigation* > *Page Title Bar Navigation*.

Desktop Inner Page: This page, contained in the framework page, controls the content rendering and supplies some additional services. The inner page contains the following six iViews, the first five of which are displayed in the navigation panel:

- *Detailed Navigation (DTN):* Displays the navigation hierarchy starting from a predefined level. When configured correctly, the TLN and the DTN should display the entire navigation hierarchy tree. For more information, see ...> *Administration Guide* > *Content Administration* > *Navigation* > *Detailed Navigation*.
- *Dynamic Navigation:* A container for other iViews. Typically those iViews contain user interface controls, such as drop-down lists and links, which retrieve data related to the content displayed in the content area. For more information, see ...> *Administration Guide* > *Content Administration* > *Navigation* > *Dynamic Navigation*.
- *Drag&Relate:* A container for links to Drag & Relate targets. A Drag&Relate target is an iView that possesses drag-on capabilities and has been associated to a page or iView containing draggable data in the form of links. For more information, see ...> *Administration Guide* > *Content Administration* > *Navigation* > *Drag&Relate Targets*.
- *Related Links:* Displays links to other iViews that contain information topically related to the content currently displayed in the portal content area. For more information, see ...> *Administration Guide* > *Content Administration* > *Navigation* > *Related Links*.
- *Portal Favorites:* Displays links to portal iViews that were bookmarked by portal users or administrators. For more information, see ...> *Administration Guide* > *Content Administration* > *Navigation* > *Portal Favorites iView*.
- *Content Area:* Used to render the dynamically changed content (iViews and pages) resulting from user navigation. Upon navigation action, the page/iView that should be displayed is resolved by the portal server and included in the content area. The Content Area iView also manages the *Isolation Method* property of the displayed content. Thus, if a page/iView is set to *URL Isolation*, the content area renders an iFrame element in which the page/iView is displayed. If the object is set to *Embedded*, the content area includes the page/iView directly, by PRT means. For more information, see ...> *Administration Guide* > *Content Administration* > *Portal Pages* > *Portal Page at Runtime* > *Isolation Method of iViews*.



2 Modifications – General Information

The framework page can be customized in several ways. The portal provides built-in tools for modifying the look and feel of the iViews on the page, and for customizing their properties. These tools simplify common customizations in the portal framework page. Some modifications should not be made even when using the portal editors. For example, removing the inner page from the framework page will harm the portal's capability of displaying content.

The section *Modifying the Framework Page* describes methods for customizing the framework page and the inner page layouts. This section also discusses some restrictions regarding the modification of the layouts.

Modifying Existing Out-of-the-Box iViews in the Framework Page, discusses both methods and restrictions when modifying or customizing the framework page iViews.

Both sections discuss code modifications. Writing totally new, or modifying existing iView code is possible, of course. For example, you could write your own version of the Masthead iView. However, before replacing the iViews in the framework page with new iViews, it is best to check whether the desired changes can be effected using the Theme Editor or the iView Property Editor.

There are some important issues that anyone who replaces or modifies iView code should take into consideration. Since the iViews in the framework page provide the navigational and structural components required to navigate and operate the portal, and since not all those components are visible to the user, changing code might harm the portal functionality and so should be done with special care.

3 Modifying Layouts and the Arrangement of iViews Within the Framework Page

The framework page and the inner page layout components are based on JSP files and are more complex than the other out-of-the-box portal layouts. While the regular layouts handle only the page UI (see ...> *Administration Guide* > *Content Administration* > *Portal Pages* > *Page Layouts/ Creating a Customized Page Layout Template*), the framework page and the inner page layouts contain additional coding that takes care of operations not necessarily related to the UI, and thus should be modified with special care.

3.1 Modifying the Arrangement of iViews Using the Layout Editor

As with any other layout, the framework page and the inner page layouts can be modified using the Layout Editor. However, using a layout other than the default layout for the inner page or the framework page is strongly discouraged. If you do decide to make modifications, be aware of the following restrictions:

- Removing or adding iViews should be done according to the guidelines in the *Adding/Removing iViews* section (see below).
- The content area iViews should remain the only iViews in the right column of the inner page layout. However, it is possible to add iViews to the left column representing the navigation panel.
- The TLN must remain the only iView in its column.

3.2 Modifying JSP Files

Another possibility for customizing the framework page or the inner page layouts is to modify the layout JSP files themselves. This option should be chosen only when the portal tools for modification are not sufficient. When deciding to modify the layout JSP files the following restrictions should be considered:

- The framework page layout should remain a *one column, full size* layout.
- The inner page layout should remain a *two column* layout. For example, writing a layout which supports an additional iView(s) placed on the right side of the navigation panel, in effect, creating a three column layout, is strongly discouraged.

4 Modifying Out-of-the-Box Framework Page iViews

4.1 Using the Theme Editor

The simplest way of customizing the look and feel of the framework page and its iViews is by using the Theme Editor. This tool enables you to change the size, font, color, background and various other look-and-feel parameters of the many portal iViews, including the framework page. For example, you can change the masthead background image, or the TLN scroll images.

Changes made using the Theme Editor are acceptable and will be supported. However, changing CSS files directly, rather than through the Theme Editor, is strongly discouraged and will not be supported. For more details about the Theme Editor see ...> *Administration Guide > System Administration > Portal Display > Portal Themes*.

4.2 Using the Property Editor

The iViews in the framework page have some special attributes which enable easy customization of the framework page. This section discusses the customization possibilities when using the property editor of each iView. Only those attributes which are unique to the framework page component are described.

Note that any changes should be made to the framework page instance located in the *Portal Users* folder, or to a copy created by the administrator. The instance that is in the *Content Provided by SAP* folder should remain untouched. See *Delta Links and Versions*, below.

For a detailed technical explanation see ...> *Administration Guide > System Administration > Portal Display > Framework Pages*.

The following are attributes that can be modified using the property editor:

4.2.1 Header

Masthead:

- Customize the Help link URL
- Display the masthead links: Personalize, Log Off, New Session, and Help

Tools Area:

Within the tools area one can configure the main access points for the Knowledge Management and Collaboration solutions:

- Customize KM Search
- Customize KM Advanced Search
- Collaboration Launch Pad
- Real-Time Collaboration Messaging Framework

Top Level Navigation:

- Set the number of displayed levels (0, 1 or 2)
- Set the hovering property
- Allow long names in the tabs, or truncate

Page Title Bar:

- Set the breadcrumb visibility attribute
- Set the maximum number of links in the breadcrumb
- Customize page tray options
- Display the Back/Forward links
- Display the History link

4.2.2 Desktop Inner Page

Detailed Navigation:

- Set the navigation hierarchy start level
- Enable text wrapping
- Enable context menu

4.3 Adding/Removing iViews

As with any other page, it is possible to remove or add iViews or pages to the framework page or to the inner page. However, some of the portal functionality can be damaged when removing some of the framework page iViews. Note the following:

- In order to place a new iView near an existing one, you can replace the current iView with a page containing the existing iView and the new one.
- You can use the dynamic navigation area to display iViews in the navigation panel.
- Removing the TLN in EP6.0 SP2 (and higher EP6.0 Patch levels) will harm portal navigation since, in addition to its regular functionality, the iView handles some important portal navigation functionality. In the NW04 versions the TLN contains only its internal functionality and does not contain additional framework coding.
- Removing the masthead will disable the functionality given in the masthead links, such as the log-off operation.
- The Content Area iView should not be removed.

4.4 Writing New or Modifying Existing Code

In addition to all the previously mentioned methods, another way of customizing the framework page iViews is by modifying their code (JSP files). This method is generally not recommended and is done at the customer's own risk. There are some issues that should be considered before applying any changes to these iViews:

- Using existing code in a new iView (for example, when someone wants to retain some of the original functionality in a new iView) might cause problems with newer versions of the portal. Since the parts of the code that are not public APIs could be changed in the future without any notice, using them could necessitate rewriting the new iView for any portal upgrade. In addition, there is no guarantee for using methods or objects which are not public APIs, and any problems resulting from using those methods will not be supported.

- The TLN and the DTN iViews should not be modified. They contain certain complex coding and any deviations from the code in these components will not be supported.
- Most of the framework page components contain special actions for preview mode.
- The masthead iView undergoes frequent revisions. This iView contains some important links and functions. For example, the *Log Off* link event and the log-off operation are handled through the masthead JSP, both the client-side and server-side operations. Modifying the JSP should be done with special care since modifications might harm the log-off operation, in addition to the previously mentioned accessibility and preview issues.
- The Content Area iView in the inner page should not be changed.

4.5 Delta Links and Versions

The initial portal content contains two instances of the framework page.

- The location of the first instance is:
pcd:portal_content/com.sap.pct/every_user/general/com.sap.portal.frameworkpage
It can be found in the Portal Catalog under: *Portal Content > Content Provided by SAP > End User Content > Standard Portal Users > Default Framework Page*. This instance should not be edited or modified. In fact no content in the *Content Provided by SAP* folder should be changed.
- The location of the second instance is:
pcd:portal_content/every_user/general/frameworkpage.
It can be found in the Portal Catalog under: *Portal Content > Standard Portal Users > Default Framework Page*.
It is a delta link of the first instance; only this second instance should be customized or modified.

An administrator can, of course, create and customize his own framework pages, which should either be delta links of the instance under the *Content Provided by SAP* directory, or at least have this instance as an ancestor in their delta links hierarchy.

When a new portal patch is installed it affects the *Content Provided by SAP* instance of the framework page.

- If the framework page or one of its iViews was customized using the portal tools, upgrading the portal should not cause any problem and the upgrades should take effect.
- If the framework page layout or a framework page iView was modified by changing its JSP code, the new portal patch updates might not be compatible with the modified (and unknown) versions of those layouts/iViews. This might prevent some of the patch updates from taking effect, or cause unexpected problems with the modified iViews.

For this reason modifying iView code is not recommended when not absolutely required, and upon portal upgrades, any such modifications might require on-going maintenance by the customer.

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