

# Integrating Web Dynpro and SAP NetWeaver Portal

## Part IV: Using Portal Eventing within a Web Dynpro Application

### Applies to:

Integration of Web Dynpro for Java applications into SAP NetWeaver Portal for the SAP NetWeaver 04s SP8 release.

### Summary

This article describes the use of portal eventing capabilities within a Web Dynpro application running in SAP NetWeaver Portal.

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### Author Bio



Jochen Guertler works as a development architect within the Web Dynpro for Java team. His main responsibilities are the integration of Web Dynpro for Java with other components of SAP NetWeaver, especially the integration with the SAP NetWeaver Portal.

Jochen is co-author of the book "Maximizing Web Dynpro for Java" from SAP Press.

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## Introduction

Within SAP NetWeaver Portal you can put together many different application types running in specific iViews on one page. *Portal eventing* or *client-side eventing* (these terms are used synonymously in this document) can be used to enable communication between these different types of iViews .

## Using Portal Eventing

To communicate between different Web Dynpro applications (running as Web Dynpro iViews located on one page) or any non-Web Dynpro portal content, you can use portal eventing provided by SAP NetWeaver Portal.

As it is not possible to add JavaScript coding to a Web Dynpro application, Java wrappers must be used to get access to the portal eventing.

It is possible to subscribe or unsubscribe to certain portal events. For that you have to define which Web Dynpro action is used as an event handler for the portal event. In addition, you can fire any portal event.

Keep in mind that portal eventing only works if all participants (i.e., the portal server itself and all servers used) reside in the same domain. Otherwise, due to JavaScript restrictions, portal eventing will not work.

## Subscribing to a Portal Event

The following example demonstrates how to subscribe to a certain portal event within a Web Dynpro application:

```
WDPortalEventing.subscribe (
    "urn:com.sap.tc.webdynpro.test.portal" ,
    "TestEvent" ,
    wdThis.wdGetTestEventAction() );
```

You must define both the name space and name of the event. The combination of these two names must be unique.

The third parameter is the Web Dynpro action, which must be mapped to the portal event. The action event handler is called if the Web Dynpro application receives the specified portal event on the client side. The Web Dynpro HTML Client handles the mapping between a portal event and a Web Dynpro action. For the Web Dynpro application developer this is absolutely transparent.

You can reuse a Web Dynpro action for several portal events of course. If you want to receive the transported data of the portal event you could define the following parameters for your Web Dynpro action:

- **dataObject**

The `dataObject` parameter contains the transported parameter of the portal event.

- **nameSpace**

The `nameSpace` parameter contains the name space of the received portal event.

- **name**

The `name` parameter contains the name of the received portal event.

Adding the `nameSpace` and `name` parameters to the Web Dynpro action makes sense, if the action is reused for several portal events, because you can use this information to differentiate between the portal events.

Tip: It is important to remember that in the actual version a portal event subscription is valid for a Web Dynpro view. Therefore you should add the needed Java coding for example in the `wdDoInit()` method of the generated view class. If you navigate between different views, you have to subscribe to every view for a needed portal event.

## Unsubscribing a Portal Event

Unsubscribing a portal event is very similar to subscribing (what a surprise!):

```
WDPortalEventing.unsubscribe(  
    "urn:com.sap.tc.webdynpro.test.portal",  
    "TestEvent",  
    wdThis.wdGetTestEventAction());
```

**Note:** Make sure you unsubscribe every Web Dynpro view when leaving the view (for example, inside the `wdDoExit()` method).

## Fire a Portal Event

The following example demonstrates how to fire a portal event:

```
WDPortalEventing.fire (
    "urn:com.sap.tc.webdynpro.test.portal",
    "TestEvent",
    "AParameter" );
```

You can fire a portal event at any place in your Web Dynpro application. The event is transported with the next response to the client. You can also raise more than one portal event in one request-response cycle. Typically you would fire a portal event in a Web Dynpro action event handler (for example, as reaction to pressing a button).

## Restrictions

Several Web Dynpro applications running on one portal page can communicate between each other using portal eventing. This only makes sense if these applications need very loose coupling. If there is a need for very strong coupling between the applications and a lot of data communication between them, it would make more sense to define a “full-screen” Web Dynpro application containing all the Web Dynpro components that are contained in the various applications.

## Further Information

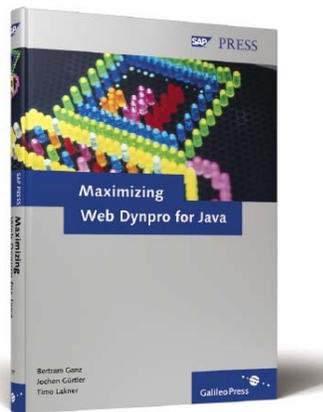
To get more information especially about extended features of the SAP Application Integrator we would like to bring to your attention to a new Web Dynpro for Java book. The German version *Praxisbuch Web Dynpro for Java* is available now – the English translation *Maximizing Web Dynpro for Java* will follow soon.



### *Praxisbuch Web Dynpro for Java*

“Maximizing Web Dynpro for Java” is aimed at Web Dynpro developers who already have development experience but want to go to the next level. As members of the Web Dynpro development team, the authors of this book are expert at revealing tips and tricks for avoiding inefficiencies and pitfalls. They cover many areas including the SAP NetWeaver Development Infrastructure, component-oriented application design, portal integration, object-based navigation, installation tips, configuration and administration, and more. There are also complete examples on how to write web service or portal-based applications.

Note: This book is currently available in German only. The English version will be released in August/September 2006. You can order the book through [SAP](#) or [Amazon.com](#).



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### *Maximizing Web Dynpro for Java*

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