

Debugging of Web Dynpro for Java Applications in CE7.1



Applies to:

Web Dynpro for Java applications for the SAP NetWeaver Composition Environment 7.1

For more information, visit the [User Interface Technology homepage](#).

Summary

This document explains how to start debugging Web Dynpro Applications in CE7.1. It also explains about Context Debugging which was introduced in Composition Environment 7.1

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Author Bio

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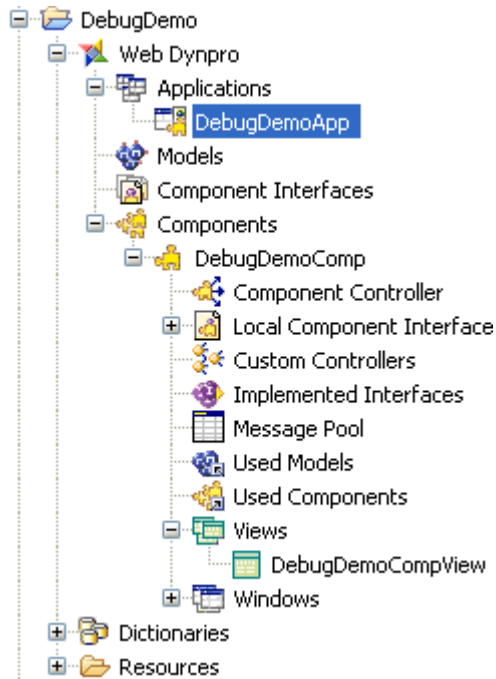
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Procedure

Create a Project

Create a webdynpro Project with name "DebugDemo". Create an application with name "DebugDemoApp" which uses the Component "DebugDemoComp". The project structure is shown in the below figure



In the Context of "DebugDemoCompView" controller create the below shown node structure

Property	Value
Misc	
Name	Employee
Collection Cardinality	0..n
Initialize Lead Selection	true
Selection Cardinality	0..1
Singleton	true
Structure	
Supply Function	
Typed Access Required	true
Documentation	
Quick Info	
Technical Documentation	

In the wdDoInit() method of "DebugDemoCompView" controller write the following code

```
public void wdDoInit()
{
    /**begin wdDoInit()
    for (int i = 0; i < 10; i++) {
        IEmployeeElement element = wdContext.nodeEmployee()
            .createEmployeeElement();
        element.setEcode("Ecode-"+i);
        element.setName("Name-"+i);
        wdContext.nodeEmployee().addElement(element);
    }
    /**end
}
```

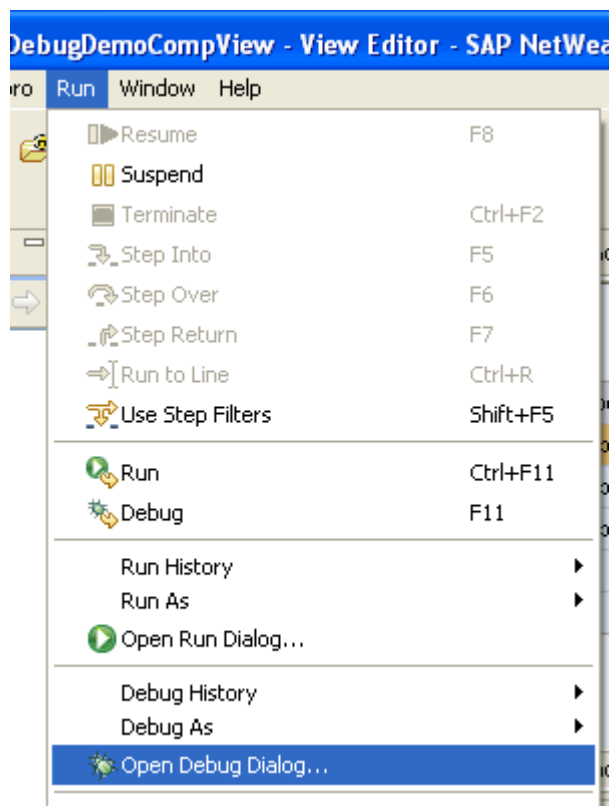
Create the below shown layout in the "DebugDemoCompView"

Debug Demo !

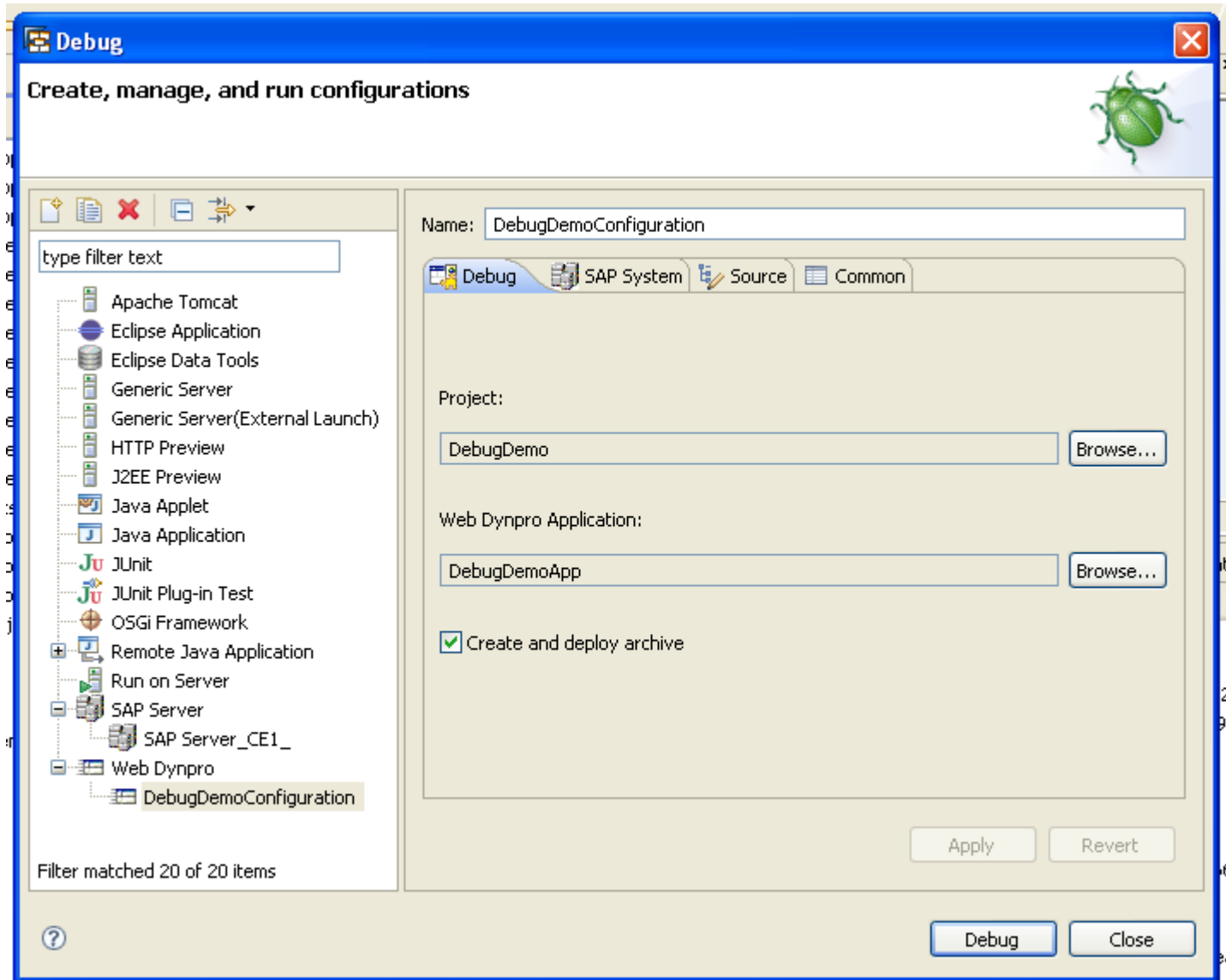
Name	Ecode
Employee/@name	Employee/@ecode
Employee/@name	Employee/@ecode
Employee/@name	Employee/@ecode

Launch Debugging

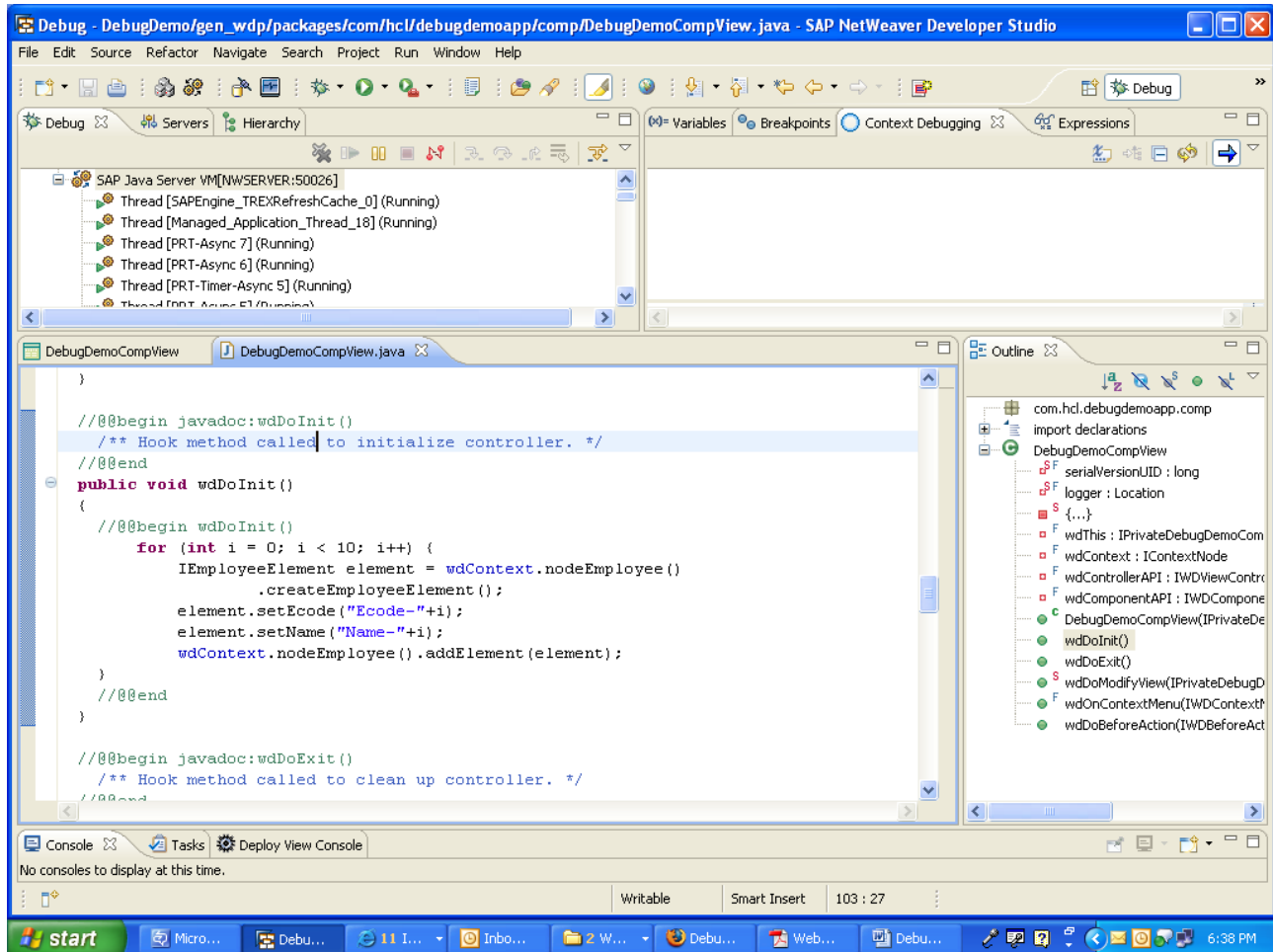
Navigate to Run -> Open Debug Dialog



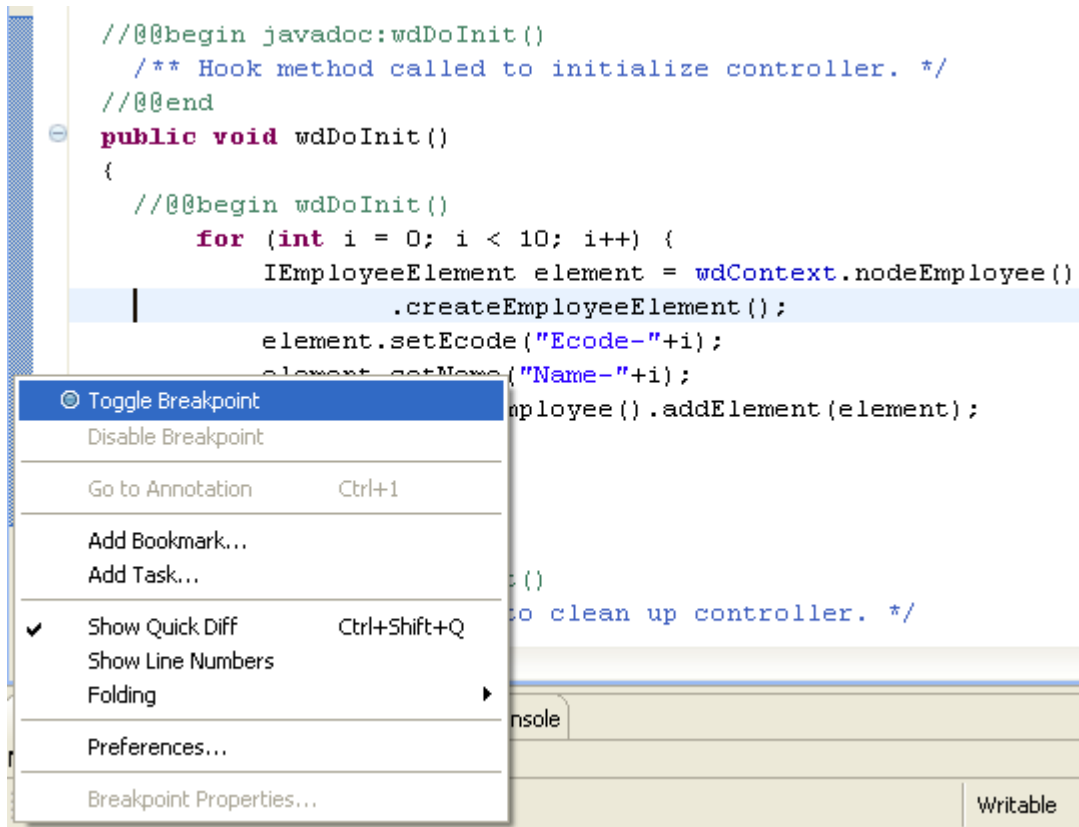
Double click on the “Web Dynpro” which is present at the bottom of the dialog box to create New_configuration. Give the name as “DebugDemoConfiguration” and choose the project “DebugDemo”. The application “DebugDemoApp” appears automatically in the Web Dynpro Application.



Click on "Apply" and then on "Debug". Now go to Window->Open Perspective -> Other -> Debug. Also navigate to Window -> Show View and open the View's "Variables"," Break Points" and "Expressions" .Now NWDS should look like this



Right-click on the left bar of the editor frame besides the appropriate line (see below) to open the context menu and choose *Toogle Breakpoint*. Alternatively you can double click on the left bar of the editor frame at the appropriate line to set the brake point.



Now run the application. The execution will stop at the break point .Now observe already opened different views "Variables", "Breakpoints", "Context Debugging".

Name	Value
this	DebugDemoCompView (id=1729)
wdComponentAPI	DelegatingComponent (id=1729)
wdContext	IPrivateDebugDemoCompView (id=1729)
wdControllerAPI	DelegatingView (id=1729)
wdThis	InternalDebugDemoCompView (id=1729)
i	0
element	IPrivateDebugDemoCompView (id=1729)

```

}

/** Hook method called to initialize controller. */
public void wdDoInit()
{
    for (int i = 0; i < 10; i++) {
        IEmployeeElement element = wdContext.nodeEmployee()
            .createEmployeeElement();
        element.setEcode("Ecode-" + i);
        element.setName("Name-" + i);
        wdContext.nodeEmployee().addElement(element);
    }
}

```

Context Debugging

Observe the “Context Debugging” View. The context values can be modified at run time. To do this, expand “element” and change the Ecode value from “Ecode-0” to “Ecode-21” and finish the execution.

The screenshot shows the SAP NetWeaver Developer Studio interface. The title bar reads "debugdemoapp/comp/DebugDemoCompView.java - SAP NetWeaver Developer Studio". The main window displays the "Context Debugging" view. The "element" variable is expanded to show "Child Nodes". The "name" property is set to "null" and the "ecode" property is set to "Ecode-21". The "Ecode-0" label is visible at the bottom of the view.

Name	Value	
+	this	DebugDemoCompView (id=1786)
o	i	0
[-]	element	IPrivateDebugDemoCompView\$IEmployeeElement (id=1803)
+	Child Nodes	
[-]	name	null
+	ecode	Ecode-21

The out put will look like this. The first element's Ecode has been changed from "Ecode-0" to "Ecode-21" at runtime.

The screenshot shows the output of a web application. The title is "Debug Demo !". It displays a table with two columns: "Name" and "Ecode". The first row is highlighted in orange and shows "Name-0" and "Ecode-21". Other rows show "Name-1" to "Name-4" with corresponding "Ecode-1" to "Ecode-4".

Name	Ecode
Name-0	Ecode-21
Name-1	Ecode-1
Name-2	Ecode-2
Name-3	Ecode-3
Name-4	Ecode-4

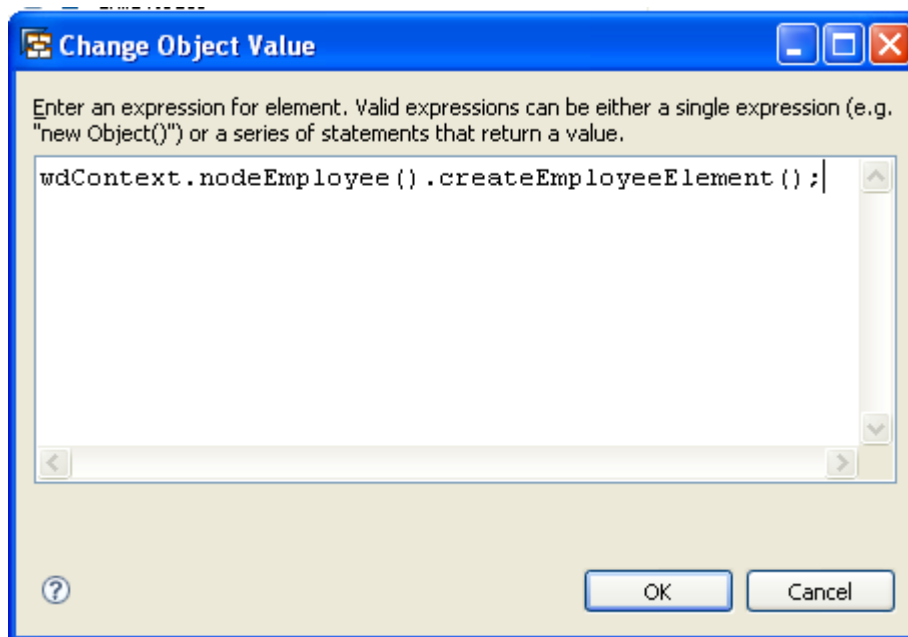
And also we can create a completely new Employee Element at runtime and assign it to variable "element". To do this, set the break point at the line "element.setName("Name-"+i)" and debug the application. Now open "Context Debugging" view, select "element" and choose "Change Value" as shown below.

Name	Value
this	DebugDemoC
i	0
element	IPrivateDebu
Chi	
nar	null
ecc	"Ecode-0"

```

IEmployeeElement element = wdContext
    .createEmployeeElement ();
element.setEcode ("Ecode-" + i);
element.setName ("Name-" + i);
wdContext.nodeEmployee ().addElement
  
```

Enter the following code in the Change Object Value Dialog box



Now your code is changed at runtime as shown below for the first iteration of the loop

```

//@@@begin javadoc:wdDoInit()
/** Hook method called to initialize controller. */
//@@@end
public void wdDoInit()
{
    //@@@begin wdDoInit()
        for (int i = 0; i < 10; i++) {
            IEmployeeElement element = wdContext.nodeEmployee()
                .createEmployeeElement();
            element.setEcode("Ecode-"+i);
            element=wdContext.nodeEmployee().createEmployeeElement();
            element.setName("Name-"+i);
            wdContext.nodeEmployee().addElement(element);
        }
    //@@@end
}

```

After setting the Ecode to the variable “element”, we are creating a new “EmployeeElement” and assigning it to variable “element”. Therefore in the result the first Employee Element doesn’t have Ecode.

The output is as shown below

Debug Demo !

Name	Ecode
Name-0	
Name-1	Ecode-1
Name-2	Ecode-2
Name-3	Ecode-3
Name-4	Ecode-4

Related Content

Highlights of Web Dynpro for Java in SAP Netweaver Composition Environment 7.1

<https://www.sdn.sap.com/irj/sdn/go/portal/prtroot/docs/library/uuid/b0e03d24-a21d-2a10-9ea6-f13e6e7ec9e7>

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