



# XPages Advanced

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# AppliGate



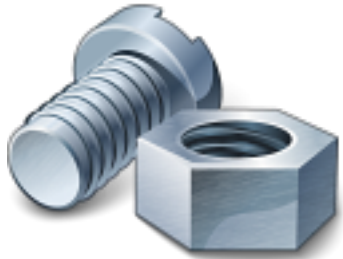
Opleidingsinstituut

Sinds 1993 is AppliGate Consultancy een  
**IBM Authorized Independent Training Provider**  
voor:

Lotus Notes & Domino  
WebSphere  
WebSphere Portal  
**Lotus Connections 2.5**



## Dojo Core



"A Toolkit by the *Dojo* Foundation featuring **DHTML** and **AJAX** functions".

"Dojo gives you a rich set of utilities for building responsive applications".

"The **Dojo Core** is the result of years of evolution and refinement. Built by JavaScript experts".

IBM gebruikt Dojo in Domino 8.5. In 8.5.1 Dojo versie 1.3.2



## Dojo Dijit

Dojo Dijit bevat de Interface Widgets. Een widget is een grafische User Interface (UI) element.

- Textbox
- Listbox
- Button



In Domino XPages heet een UI element een Control.

In Domino 8.5.1 kunnen aan controls een aantal Controls Dijit widget attributen worden toegekend, zoals aan het Panel Control.



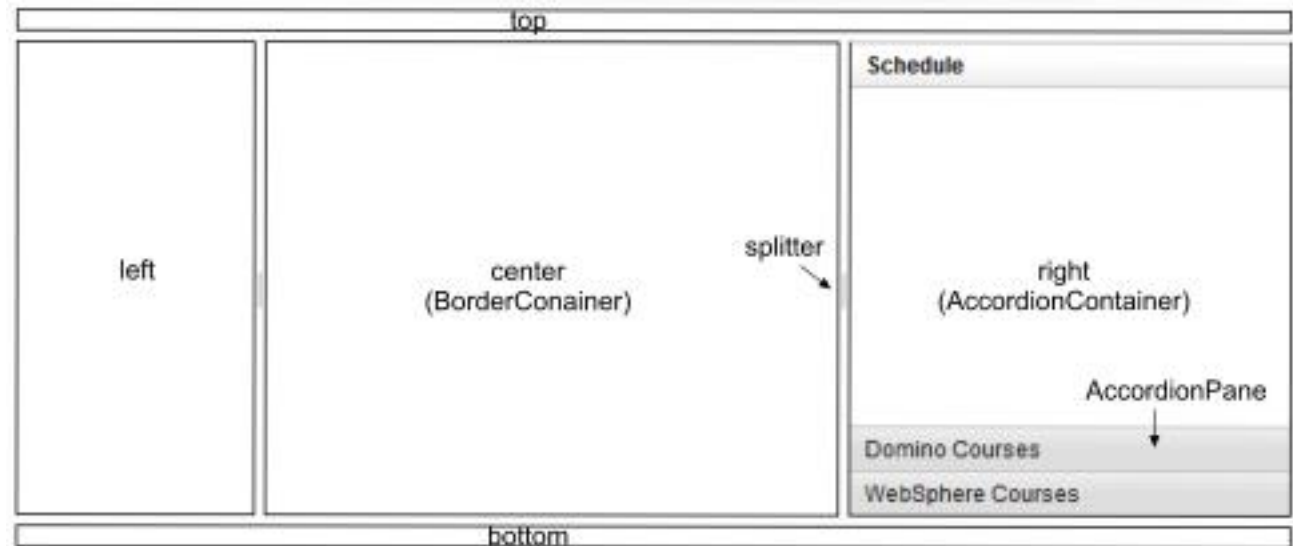
# dijit.layout.BorderContainer

Geeft een webpagina een flexibele vaste indeling. De BorderContainer heeft vijf gebieden.

Het "center" pane past zich aan de grootte van het Browser window aan.

In Domino 8.5 met `<div>`'s.

In Domino 8.5.1 met de Panel Container Control properties.





## BorderContainer in Domino 8.5.1

Een **outer** Panel Container control, die vijf **inner** Panel Container control's heeft.

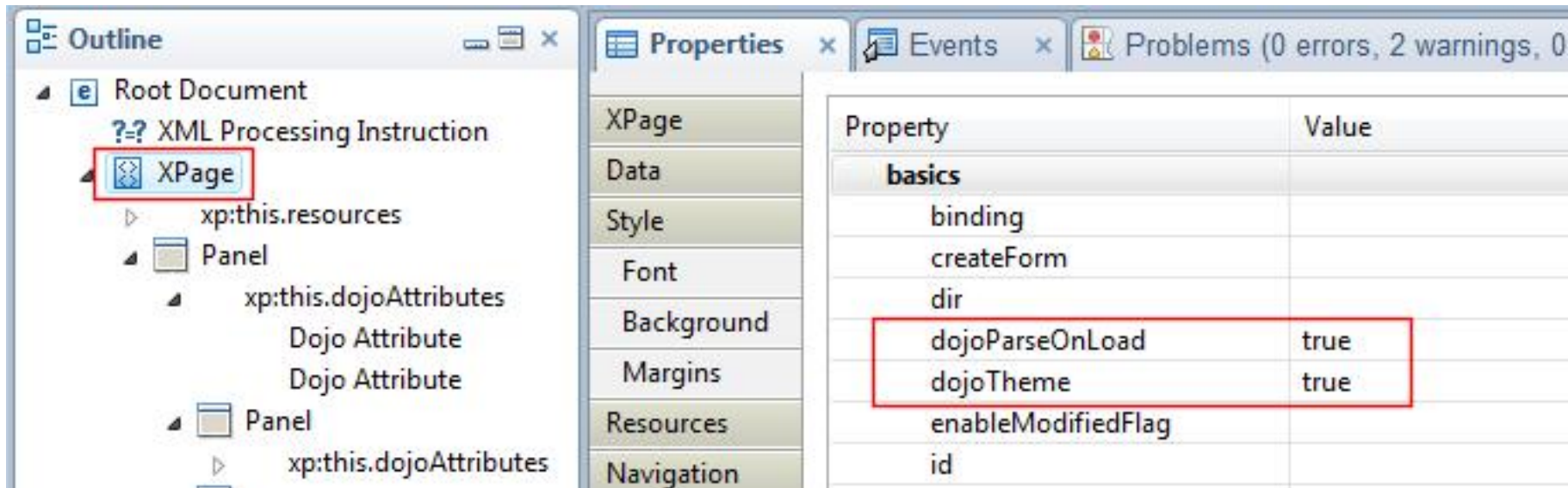
Outer Panel wordt de Dojo **dijit.layout.BorderContainer**. De inner Panels worden **dijit.layout.ContentPane**'s.

De volgende drie stappen:

1. Activeer XPage dojo.ParseOnLoad en dojoTheme;
2. Definieer de Dojo widgets;
3. Definieer voor de outer Panel de Dojo widget en attributen.

# Step 1

## XPage Dojo properties



The screenshot displays the IBM WebSphere Designer interface. The Outline view on the left shows a tree structure starting with 'Root Document', followed by 'XML Processing Instruction', and then 'XPage'. The 'XPage' element is selected and highlighted with a red box. Below it, the 'Panel' element is expanded, showing 'xp:this.dojoAttributes' and another 'Panel' element. The Properties view on the right shows the 'XPage' properties, with the 'basics' section expanded. The 'dojoParseOnLoad' and 'dojoTheme' properties are highlighted with a red box, both set to 'true'.

Property	Value
<b>basics</b>	
binding	
createForm	
dir	
dojoParseOnLoad	true
dojoTheme	true
enableModifiedFlag	
id	



# Step2

## XPage Resources

The screenshot displays the IBM WebSphere Designer interface. On the left, the Outline pane shows a tree view of the XPage structure. The 'XPage' node is highlighted with a red box. Below it, the 'resources' folder is expanded, showing several 'Dojo Module Resource' entries, a 'Style Sheet', and a 'Panel'. The Properties pane on the right shows the configuration for the selected 'XPage' node. The 'Resources' property is selected, and the 'resources' folder is expanded to show a 'dojoModule [0]' entry. This entry is further expanded to show a 'basics' sub-property, which contains a 'name' property set to 'dijit.layout.BorderContainer'. Other properties like 'condition' and 'rendered' are also visible. The 'dojoModule [1]' through '[4]' and 'styleSheet [4]' entries are also listed under the 'resources' folder.



# Stap 3

Dojo gegevens voor het outer Panel:

The screenshot shows the IBM WebSphere Designer interface. The Outline panel on the left shows a tree structure: Root Document > XML Processing Instruction > XPage > xp:this.resources > Panel (highlighted with a red box). Below it are xp:this.dojoAttributes and three Dojo Attribute entries. The Properties panel on the right shows a list of properties for the selected Panel widget. The 'All Properties' section is expanded to show the 'dojo' category, which includes 'dojoAttributes', 'dojoAttribute [0]', 'dojoAttribute [1]', 'dojoAttribute [2]', and 'dojoType'. The 'dojoAttribute [0]' entry is expanded to show its 'name' property set to 'design' and its 'value' property set to 'headline'. The 'dojoType' property is set to 'dijit.layout.BorderContainer'.

Property	Value
▷ basics	
▷ data	
▲ dojo	
▲ dojoAttributes	
▲ dojoAttribute [0]	
name	design
value	headline
▷ dojoAttribute [1]	
▷ dojoAttribute [2]	
dojoType	dijit.layout.BorderContainer



# BorderContainer: Resultaat

```
<?xml version="1.0" encoding="UTF-8"?>  
<xp:view xmlns:xp="http://www.ibm.com/xsp/core" xmlns:xc="http://www.ibm.com/xsp/custom"  
dojoParseOnLoad="true" dojoTheme="true">
```

```
<xp:this.resources>
```

```
<xp:dojoModule name="dijit.layout.BorderContainer"></xp:dojoModule>  
<xp:dojoModule name="dijit.layout.ContentPane"></xp:dojoModule>  
<xp:dojoModule name="dijit.layout.AccordionContainer"></xp:dojoModule>  
<xp:dojoModule name="dijit.layout.AccordionPane"></xp:dojoModule>  
<xp:styleSheet href="/appligate.css"></xp:styleSheet>
```

```
</xp:this.resources>
```

```
<xp:panel dojoType="dijit.layout.BorderContainer">
```

```
<xp:this.dojoAttributes>
```

```
<xp:dojoAttribute name="design" value="headline"></xp:dojoAttribute>
```

```
<xp:dojoAttribute name="style" value="width: 100%; height: 500px">
```

```
</xp:dojoAttribute>
```

```
</xp:this.dojoAttributes>
```

```
<xp:panel dojoType="dijit.layout.ContentPane">
```

```
...
```



# Attributen

## Attributen dijit.layout.BorderContainer:

Naam	Type	Opmerking
design	String	"headline" of "sidebar"
persist	Boolean	Splitter posties bewaren als cookie

## Attributen dijit.layout.ContentPane:

Naam	Type	Opmerking
region	String	Positie: "top", "left", "center", "right", "bottom"
splitter	Boolean	Handvat splitter



# Dojo ContentPane

De definitie van de "center" ContentPane.

```
<xp:panel dojoType="dijit.layout.ContentPane">  
  <xp:this.dojoAttributes>  
    <xp:dojoAttribute name="region" value="center">  
  </xp:dojoAttribute>  
    <xp:dojoAttribute name="splitter" value="true">  
  </xp:dojoAttribute>  
    <xp:dojoAttribute name="style" value="border: 1px solid #ccc;">  
  </xp:dojoAttribute>  
  </xp:this.dojoAttributes>  
</xp:panel>
```



## Attributen (vervolg)

Attributen `dijit.layout.AccordionContainer`:

Naam	Type	Opmerking
<code>region</code>	String	Positie: "top", "left", "center", "right", "bottom".
<code>persist</code>	Boolean	Geselecteerde <code>AccordionPane</code> als cookie opslaan.
<code>splitter</code>	Boolean	Handvat splitter.
<code>maxSize</code>	Integer	Maximale breedte in pixels. Default breedte wordt via de <code>style</code> attribute geregeld.

Attributen `dijit.layout.AccordionPane`:

Naam	Type	Opmerking
<code>title</code>	String	Title van het pane



# Dojo AccordionPane

```
<xp:panel dojoType="dijit.layout.ContentPane">
  <xp:this.dojoAttributes>
    <xp:dojoAttribute name="region" value="trailing"></xp:dojoAttribute>
    <xp:dojoAttribute name="splitter" value="true"></xp:dojoAttribute>
    <xp:dojoAttribute name="style" value="width: 400px;"></xp:dojoAttribute>
  </xp:this.dojoAttributes>

  <xp:panel dojoType="dijit.layout.AccordionContainer">
    <xp:panel dojoType="dijit.layout.AccordionPane">
      <xp:this.dojoAttributes>
        <xp:dojoAttribute name="title" value="Schedule"></xp:dojoAttribute>
      </xp:this.dojoAttributes>
    </xp:panel>

    <xp:panel dojoType="dijit.layout.AccordionPane">
      <xp:this.dojoAttributes>
        <xp:dojoAttribute name="title" value="Domino Courses">
      </xp:dojoAttribute>
      </xp:this.dojoAttributes>
    </xp:panel>
    ...
  </xp:panel>
```



## dijit.form.DateTextBox

Kalender openen, zodra de cursor in een Date Time Picker control wordt gezet. Selecteer eerst de control, dan All Properties -> dojo -> dojoType.

```
<xp:inputText value="#{dominoDocument1.dateHired}" id="dateHired1">  
  
  <xp:this.converter>  
    <xp:convertDateTime type="date" dateStyle="medium">  
  </xp:this.converter>  
  
  <xp:dateTimeHelper dojoType="dijit.form.DateTextBox"  
  </xp:dateTimeHelper>  
  
</xp:inputText>
```



## Computed Voorbeeld

Dijit object creëren en koppelen aan XPages control: twee initialisatie parameters. Eerste parameter is in JSON formaat en bevat de attributen voor de (Dijit) Textarea.

```
<xp:inputTextarea id="inputTextarea1"
  value="#{dominoDocument1.remark}">
</xp:inputTextarea>
<xp:scriptBlock id="scriptBlock2">
  <xp:this.value>
    <![CDATA[new dijit.form.Textarea(
      {name: "#{id:inputTextarea1}", // eerste argument
      value: "",
      style: "width: 80%;",
      escape: false}, // nu volgt het tweede argument
      XSP.getElementById("#{id:inputTextarea1}")
    );]]>
  </xp:this.value>
</xp:scriptBlock>
```



# Regular Expressions

Selecteer Edit Box control, dan: All Properties -> data -> validators. Klik op het toetsje met +-teken en kies uit de lijst **xp:validateConstraint**. Tik foutboodschap en regular expression in.

```
<xp:inputText value="#{dominoDocument1.email}" id="email1" style="width:191.0px">
  <xp:this.validators>
    <xp:validateConstraint message="Wrong e-mail address.">
      <xp:this.regex><![CDATA[^([0-9a-zA-Z]([-.\w]*[0-9a-zA-Z])*@[0-9a-zA-Z]([-.\w]*[0-9a-zA-Z]\.)+[a-zA-Z]{2,9})$]]>
    </xp:this.regex></xp:validateConstraint>
  </xp:this.validators>
</xp:inputText>
```

Regular expressions library: <http://regexlib.com/>



## Custom Control's

Vergelijk een Custom Control met een Domino Subform.  
Een Custom Control kan in een andere Custom Control genest worden.

View Control CC van Tibor Koch. Vergelijk dit met @Command ([CollapseAll]) en @Command([ExpandAll]).

Zie voor de code de XPage wiki van AppliGate.

OpenNTF heeft twee Custom Control's:

- Fisheye CC
- Login CC



# Fisheye Custom Control

Download de XPagesFisheyeControl.nsf.

Kopieer de volgende bestanden naar eigen applicatie:  
ccXPagesFisheye.xsp, jsXPagesFisheyeControlClient,  
jsXPagesFisheyeControlServer en cssFisheyeControl.css.

Definieer itemTitles, itemLinks en itemImgs, bijvoorbeeld:

```
<xc:ccXPagesFisheyeControl  
  itemTitles="item1, item2"  
  itemLinks="http://www.openntf.org, http://www.openntf.org"  
  itemImgs="/favicon.ico, /favicon.ico">  
</xc:ccXPagesFisheyeControl>
```



# Waarde doorgeven aan Custom Control

Voorbeeld met View Control van Tibor Koch. Je kunt meerdere Views panels op een pagina hebben. Hoe geef je de id van het juiste panel door aan de CC?

```
<xc:ccViewControls viewPanelName="ccAccordionPaneViewPanel1"></xc:ccViewControls>
```

In CC, definieer onder Property Definition:

- naam van de property b.v.: **viewPanelName**;
- maak property: Required;

In de formule naar de property verwijzen:

```
var viewPanel = getComponent(compositeData.viewPanelName);
```

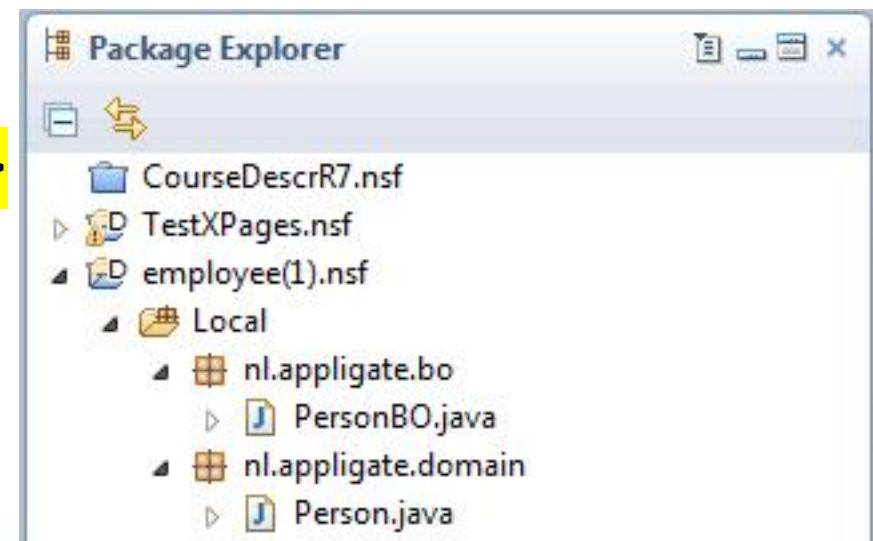


# Java

In server side JavaScript kan naast @Functions ook Java worden gebruikt:

```
var personBO = new nl.appligate.bo.PersonBO();  
var person = personBO.getPersonById(getComponent("id1").value);  
getComponent("name1").value = person.getName();  
getComponent("email1").value = person.getEmail();
```

Java classes in het Java Perspectief (Window -> Open Perspective -> Other... -> Java) definiëren onder de folder Local van de database.

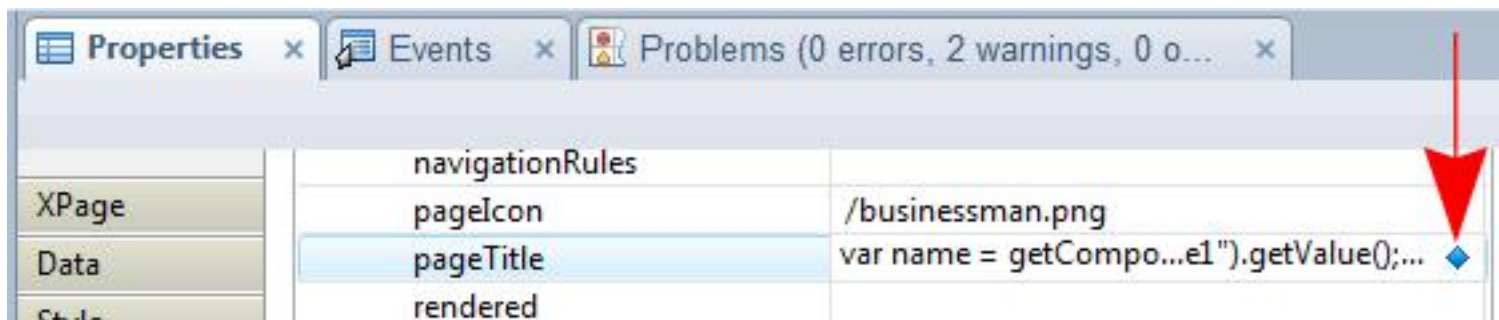




# Computed Window Title

In de Global Properties van de XPage kun je een Page (Window) Title en Icon definiëren, ook computed:

```
var name = getComponent("name1").getValue();  
if (name == null) {  
    name = "New Employee";  
}  
getComponent("label1").setValue(name);  
view.setPageTitle(name);
```





# Language Localization

Omschrijvingen op de pagina aanpassen aan de taalinstellingen van de browser.

Domino genereert automatisch de .properties bestanden voor elke XPage. Aanzetten in de Application Properties op de XPage tab.

## Localization Options

Enable localization

Generate property files for these languages:

English  
Dutch

Add...

Remove

Source language English

Default Language English

When you are ready to begin localization, choose Project - Clean to generate the property files.

Merge source file changes into property files

Daarna activeren via Project -> Clean.

Bestanden worden automatisch aangepast bij wijzigingen.



# Language Localization (vervolg)

Wijzigen in het Java Perspectief van Domino Designer.

The screenshot shows the Domino Designer interface. On the left, the Package Explorer displays a tree of files for the 'ccViewControls' project. The file 'ccViewControls.properties' is highlighted with a red box, and an arrow points to it with the text 'Default properties bestand'. Below it, 'ccViewControls\_nl.properties' is also highlighted with a red box, and an arrow points to it with the text 'nl is de landcode. Properties voor het Nederlands'. On the right, the code editor shows the XSP code for 'button2'. The code includes a key, source, and nls property. The nls property is set to 'Alle categori\u00ebn openen'. Below this, there is a timestamp and two button definitions. The second button, 'button2', has a value of '[nl| Expand All ]'. A red arrow points to this value with the text 'Omschrijving moet nog aangepast worden naar aanleiding van een wijziging.'



# Tombola

*Onze prijs is een*

Gratis

2-daagse introductie cursus XPages:

**D8L55 - Introduction to IBM Lotus Domino 8.5 XPages**



## Referenties

- 2-daagse introductie cursus: **D8L55 - Introduction to IBM Lotus Domino 8.5 XPages.**
- XPage wiki AppliGate: <http://www.appligate.nl/wiki/xpages2.nsf/>
- XPage wiki Domino Designer:  
<http://www-10.lotus.com/ldd/ddwiki.nsf/>
- <http://www.qtzar.com/blogs/qtzar.nsf/htdocs/LearningXPages.htm> (Declan Lynch Blog)
- <http://www.jmackey.net/> (John Mackey Blog)