

# **Content Models in jAPS2.0 mini-HOWTO**

**Do It The jAPS Way**

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# Content Models in jAPS2.0 mini-HOWTO

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## Abstract

This document will quickly illustrate *Content Models* concept.

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# Chapter 1. Scope of the document

## Introduction

This document will explain what are *Content Models* in jAPS 2.0 and how to use them.

## Target audience

This document is for the ones who are going to create or extend a web portal with jAPS 2.0

Examples and concepts reported in this guide will be useful to developers as a reference for the creation simple Content Models

## Prerequisites

In order to take maximum advantage from the present document, it is necessary to have basic knowledge about:

- jAPS 2.0 and its architecture
- “Content Types” in jAPS 2.0
- html e css
- Apache Velocity Template Language

## Resources

Additional informations may be obtained through:

- Apache Velocity VTL Reference [<http://velocity.apache.org/engine/devel/vtl-reference-guide.html>]
- <japs-devs@lists.sourceforge.net>, mailing list focused on developers
- <japs-users@lists.sourceforge.net>, mailing list focused on final users

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# Chapter 2. Content Model Theory

## Content Model Theory

The purpose of Content Models is to represent in the proper manner information, which are enclosed in Contents, inside jAPS pages.

For each Content Type there are at least one *model for list* and one *default model*, they will be used as reference by jAPS (these models are specified in the Content Types xml configuration)

Content Models can be created from CMS interface, in the left menu click on Misc, then in Customize and after in Content Models.

Here you will access to the models list where you can edit existing models or create new.

For each Content Model you have to specify:

- Id, mandatory field, an unique number needed by jAPS
- Type, mandatory field, reference to Content Type
- Description, mandatory field, short description of what the model does
- Model, mandatory field, the model written in Velocity language
- Style Sheet, here specify the name of a CSS style sheet

### Database

Content Models will be stored in the `contentmodels` table in the database Port.

## The Model

The model will be interpreted by Velocity then you have the functionalities of the template engine such as variables, expressions and instructions.

The resulting model and the portal pages is to be a homogeneous structure, so if the page models are coded in xhtml also the result of the rendered model should be xhtml.

You are going to write a mix of two different languages in Content Models: same markup language used in Pages and the Velocity language.

jAPS provides the following items in the Velocity Context:

- `$content`
- `$i18n`

`$content`, it's the object Content, you can read properties from the object using the standard notation:

`$content.NAMEOFTHEATTRIBUTE`

Please refer to the JavaDoc documentation about Content Types if you want to know more about the Content object and its properties.

jAPS also provides the following Content properties:

- `$content.categories`

- `$content.contentLink`
- `$content.contentOnPageLink`

`$content.categories` is a map (Map) containing the list of categories contained in the list of categories associated with the content.

`$content.contentLink` returns a string with the full link of the page where the content is published

`$content.contentOnPageLink` is a method accepting a page code as parameter and returns the URL of a page with the current Content published inside.

## Examples

See next chapters

# Conventions: Naming and Numbering

There is a criterion for the assignment of Id, Description and Style Sheet when creating Content Models

## Id assignment convention

Id values start from 1.

Every Content Type must have at least two models: default model and list model (defaultmodel and listmodel).

Proceed assigning Ids first to the default models, then to list models and after to others models.

Concerning default models proceed assigning incremental Ids starting from 1.

Then, assign Ids to list models using the Id of the corresponding default model as a prefix

### Example 2.1. Assign Id to Generic Default and News Default models

We'll assign:

- Id for Generic Default: 1
- Id for Generic Default: 2

If there are also other Content Types proceed incrementing of 1 the value of the Id for each Default Model.

### Example 2.2. Assign Ids to List of Generic Content, List of News

We'll assign:

- Id of List of Generic Content : 11
- Id for List of News : 21

If there are also other Content Types proceed incrementing of 1 the value of the Id for each List Model

## More than ten Default Model

If you have ten Default Models, assign to tenth list model Id 101

- Id for ninth List Model: 91
- Id for tenth List Model: 101

Also for other models of same Content Type, assign Id using the Id of the corresponding Default Model as prefix and starting from 1 increment the value for each value.

### **Example 2.3. Assign Ids to Generic Content and News Content Types**

- Id of the Default Model for Generic Content: 1
- Id of the List Model for Generic Content: 11
- Id of the Alternative Model for Generic Content: 12
- Id of the Default Model for News: 2
- Id of the List Model for News: 21
- Id of the Alternative Model for News: 22

and for the tenth Default Model...

- Id of Default Model for the tenth Content Type: 10
- Id of List Model for the tenth Content Type: 101
- Id of Alternative Model for the tenth Content Type: 102

## **Convention for Descriptions**

There aren't specific conventional Descriptions for Content Models

We suggest, as best practice, to write which information will appear.

Please read next example.

### **Example 2.4. Descriptions Example**

Refer to a content type called Generic Content with these Attributes:

- Title
- Abstract
- Body
- Links
- Attachments
- Image1
- Image2
- Image3

Description of a model that shows title, body, the links, the attachments and the picture 1 will be:

Full (Title, Body, Links, Attach ,Pic1)

Description of a model that shows just the title and the picture 1 will be:

Model for List (Title and Image1)

Also a good thing is to specify peculiarities the model has:

### **Example 2.5. Description of a Red List Model**

List Model - Red (Title, Image1)

## **Convention for Style Sheets**

Another good thing is to keep in different files CSS with different scope. Place Content Models CSS in `contentmodels` directory under `resources/static/css`

The name of the CSS file consist of the Content Type code and a brief description without spaces: `CODE_description_with_no_spaces.css`

Examples of Style Sheet names:

`contentmodels/CNG_complete.css`

`contentmodels/CNG_green_box.css`

`contentmodels/NEW_red_list.css`

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# Chapter 3. Examples

## Examples

In this chapter will be shown few examples of how create and use Content Models

### Generic Content

Please refer to the following Content Type as Generic Content

```
<contenttype
  typecode="CNG"
  typedescr="Generic Content"
  viewpage="contentview"
  listmodel="11"
  defaultmodel="1">
  <attributes>
    <attribute name="Title" attributetype="Text" required="true" />
    <attribute name="Abstract" attributetype="Longtext" />
    <attribute name="Body" attributetype="Hypertext" />
    <attribute name="Image_1" attributetype="Image" />
    <attribute name="Image_2" attributetype="Image" />
    <list name="Links" attributetype="Monolist" nestedtype="Link" />
    <list name="Attachments" attributetype="Monolist" nestedtype="Attachme
  </attributes>
</contenttype>
```

### Complete Model for Generic Content

If we want show all the Attributes (except for the Abstract, it will be used only in lists), the model could be:

- Id: 1
- Type: Generic Content
- Description: Complete (title, body, img1-2, links, attach)
- Model:

```
$content.Title.text
$content.Body.text

$content.Image_1.text: $content.Image_1.imagePath("1") -
$content.Image_2.text: $content.Image_2.imagePath("1")

#foreach ($link in $content.Links)
  $link.text: $link.destination -
#end

#foreach ($attach in $content.Attachments)
  $attach.text: $attach.attachPath -
#end
```

- Style Sheet: contentmodels/CNG\_complete.css

jAPS will output something like:

Test Content

<p>This is a test with images, links and attachments.</p>

My Logo: /myPortal/resources/cms/images/myImage\_dl.jpg

Company Logo: /myPortal/resources/cms/images/anotherImage\_dl.png

jAPS Homepage - <http://www.japsportal.org>

jAPS Developers Site - <http://dev.japsportal.org>

Architecture - /myPortal/resources/cms/documents/articolol.pdf

Advantages - /myPortal/resources/cms/documents/vantaggi.pdf

Next step is trasform the model in html

```
<div class="generic">
  <h3>${content.Title.text}</h3>

  ${content.Body.text}

  <br />
  

  <h4>Link</h4>
  <ul>
    #foreach ($link in $content.Links)
      <li>
        <a href="${link.destination}">${link.text}</a>
      </li>
    #end
  </ul>

  <h4>Attachments</h4>
  <ul>
    #foreach ($attach in $content.Attachments)
      <li>
        <a href="${attach.attachPath}">${attach.text}</a>
      </li>
    #end
  </ul>
</div>
```

## Manage not required Attributes

In the Generic Content configuration we described above there are few Attributes that are not required field

Control the rendering of not required Attributes using Velocity language:

```
<div class="generic">
  <h3>${content.Title.text}</h3>

  #if (${content.Body.text} != "")
    ${content.Body.text}
  #end
</div>
```

```

    #if ($content.Image_1.imagePath("1") != "")
      <br />
    #end

    #if ($content.Image_1.imagePath("2") != "")
      
    #end

    #if ($content.Links && $content.Links.size() > 0)
      <h4>Links</h4>
      <ul>
        #foreach ($link in $content.Links)
          <li>
            <a href="$link.destination">$link.text</a>
          </li>
        #end
      </ul>
    #end

    #if ($content.Attachments && $content.Attachments.size() > 0)
      <h4>Attachments</h4>
      <ul>
        #foreach ($attach in $content.Attachments)
          <li>
            <a href="$attach.attachPath">$attach.text</a>
          </li>
        #end
      </ul>
    #end

</div>

```

## List Model for Generic Content

Example for rendering a list of Generic Content

```

<p>
  <a href="$content.contentLink">$content.Title.text</a>
  #if ($content.Abstract.text != "")
    <br />$content.Abstract.text
  #end
</p>

```

## News

Please refer to the following Content Type as New

```

<contenttype
  typecode="NEW"
  typedescr="New"
  viewpage="newsview"
  listmodel="21"
  defaultmodel="2">
  <attributes>
    <attribute name="Title" attributetype="Text" required="true" />
    <attribute name="Date" attributetype="Date" required="true"/>
    <attribute name="Abstract" attributetype="Longtext" />
    <attribute name="Body" attributetype="Hypertext" required="true" />
  </attributes>
</contenttype>

```

```
    </attributes>
  </contenttype>
```

## Complete Model for News

Define the complete model with:

- Id: 2
- Type: New
- Description: Complete (Title, date, body)

and its model

```
<div class="complete">

  <h3>${content.Title.text}</h3>
  <p class="data">${content.Date.longDate}</p>

  ${content.Body.text}

</div>
```

## List Model for News

```
<p>
  <a href="${content.contentLink}">${content.Title.text} &ndash; ${content.Date.shortDate}</a>
  #if (${content.Abstract.text} != "")
    <br />${content.Abstract.text}
  #end
</p>
```

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