

# Creating Custom Dojo Widgets Using WTP



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# Breaking it down

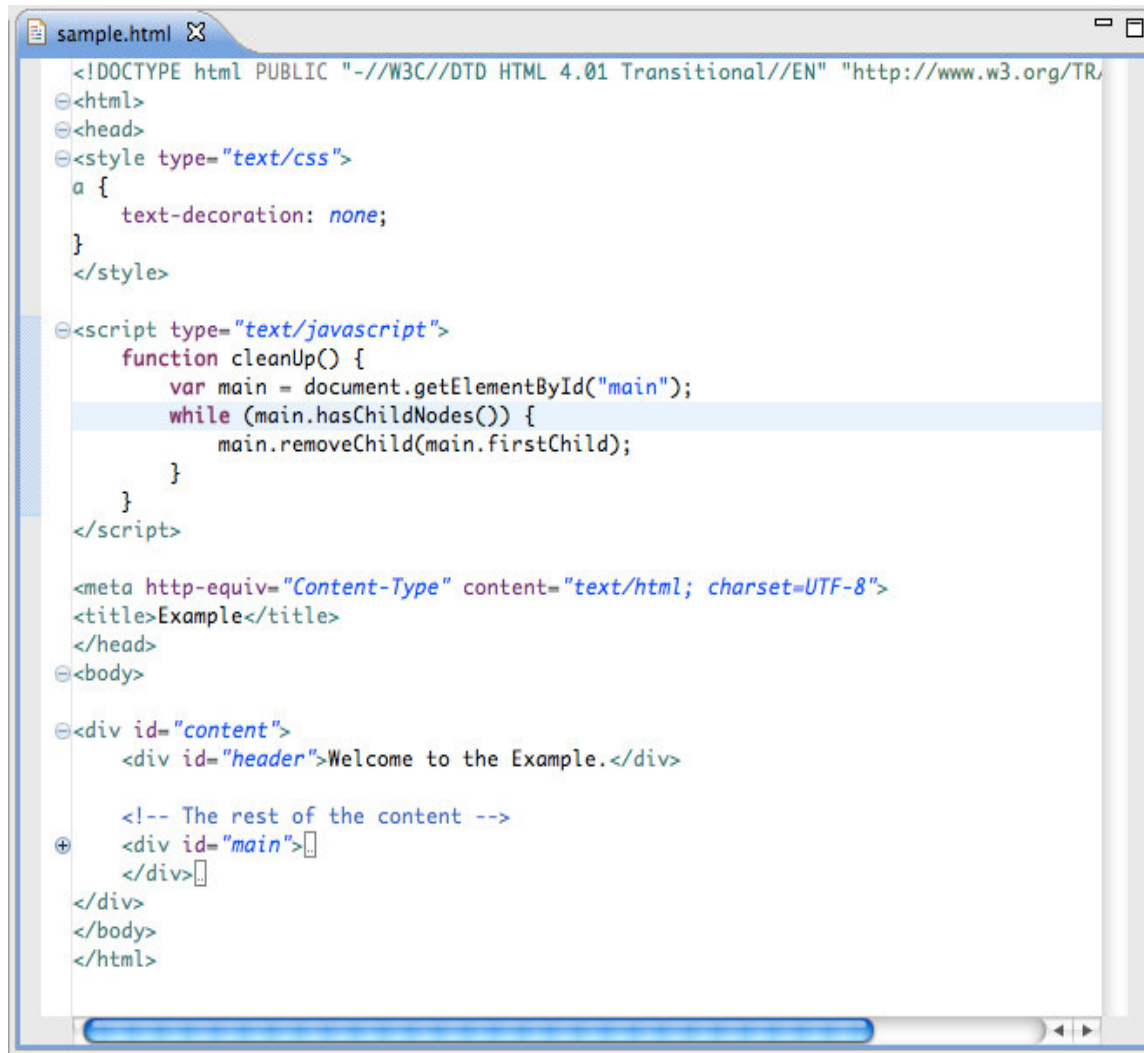
- Introduction to the Web Tools Platform and Dojo
- Adding Dojo to your webpage
- Modules
- Dojo Classes
- Widgets
  - The core
  - Why make a widget

**It's Widget making time!**

# What is WTP?

- Tools for working with and producing Web-centric applications
  - Web Standard Tools
  - J2EE Standard Tools
- But it's a platform

# Source Editing

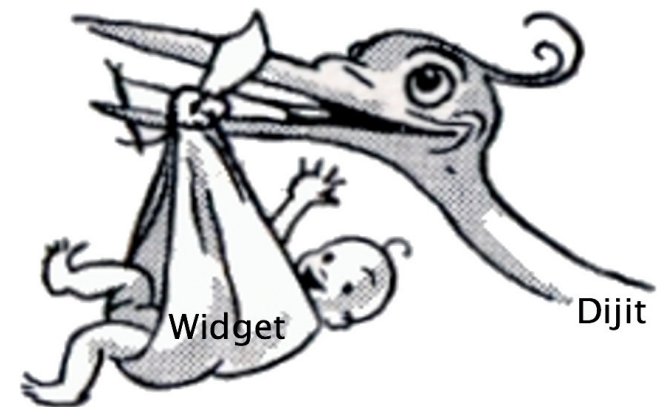


```
sample.html x
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/
<html>
<head>
<style type="text/css">
  a {
    text-decoration: none;
  }
</style>
<script type="text/javascript">
  function cleanUp() {
    var main = document.getElementById("main");
    while (main.hasChildNodes()) {
      main.removeChild(main.firstChild);
    }
  }
</script>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Example</title>
</head>
<body>
<div id="content">
  <div id="header">Welcome to the Example.</div>
  <!-- The rest of the content -->
  <div id="main">
  </div>
</div>
</body>
</html>
```

# What is Dojo?

- Open Source JavaScript library more appropriately known as the Dojo Toolkit
- Core
  - JSON encoding/decoding
  - Cross-browser Ajax utility
  - Extensive CSS selector-based DOM querying
  - Event support
  - DOM manipulation
- Dijit
- DojoX

```
<script type="text/javascript">  
dojo.  
</script>
```



# Getting that Dojo-ey goodness

- Load the base Dojo script

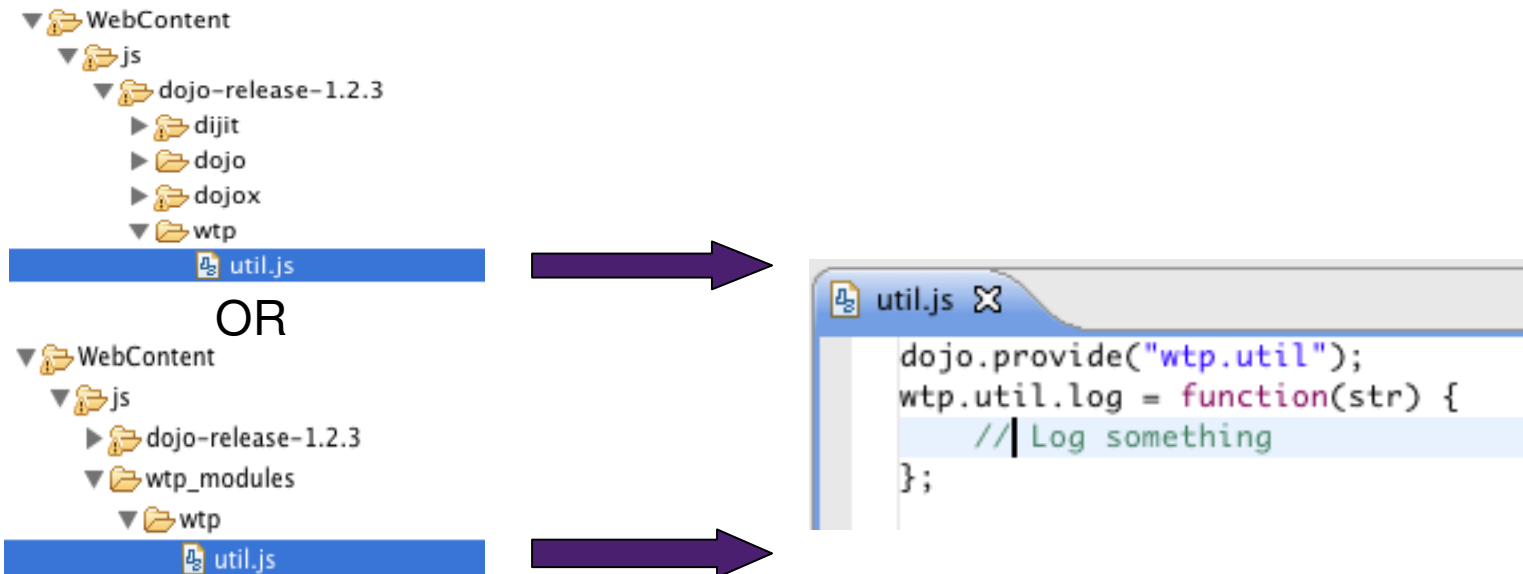
```
<script type="text/javascript" src="js/dojo-release-1.2.3/dojo/dojo.js"
  djConfig="parseOnLoad: true, isDebug: false"></script>
```

- djConfig as a global variable

```
<script type="text/javascript">
  var djConfig = {
    parseOnLoad : true,
    isDebug : false
  };
</script>
```

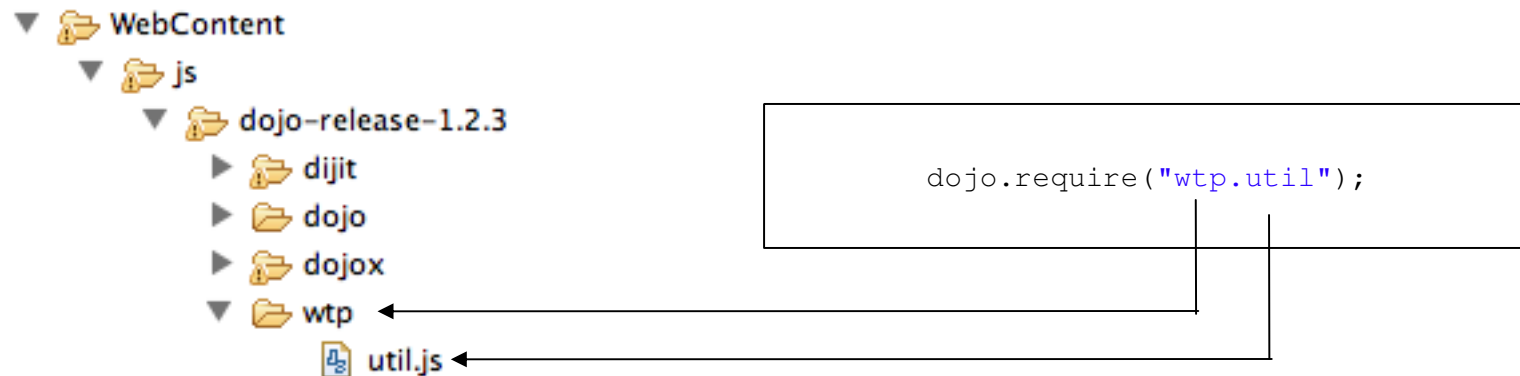
# Modules

- Protection from nasty global namespace collisions
- Contributing modules (peer and external)
  - `dojo.registerModulePath("wtp", "../wtp_modules/wtp/");`



# Making use of the modules

- `dojo.require(module)`
- *module* is period-separated path to the module without the file extension



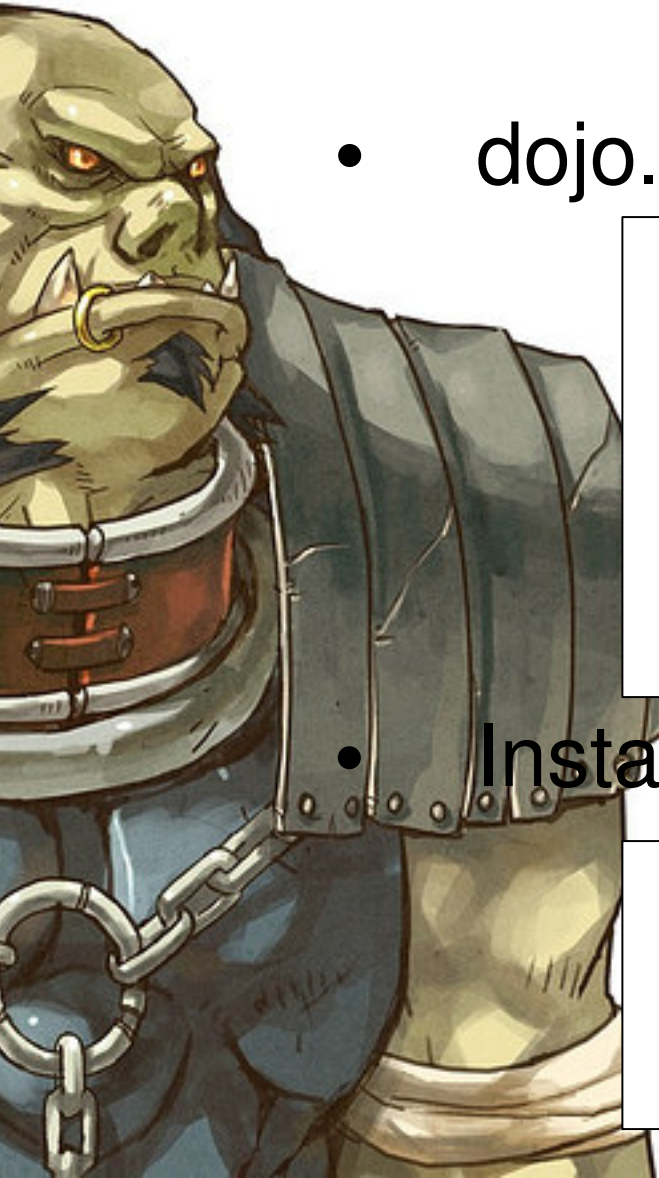
# That takes class...

- `dojo.declare(name, baseClass, { body })`

```
dojo.provide("org.eclipse.mobs.Orc");
dojo.require("org.eclipse.mobs.Humanoid");
dojo.declare("org.eclipse.mobs.Orc", org.eclipse.mobs.Humanoid, {
  constructor : function(_name, _clan) {
    this.name = _name;
    this.clan = _clan;
  },
  speak : function(_whatToSay) {
    alert(this.name + " [" + this.clan + "] says: " + _whatToSay);
  }
});
```

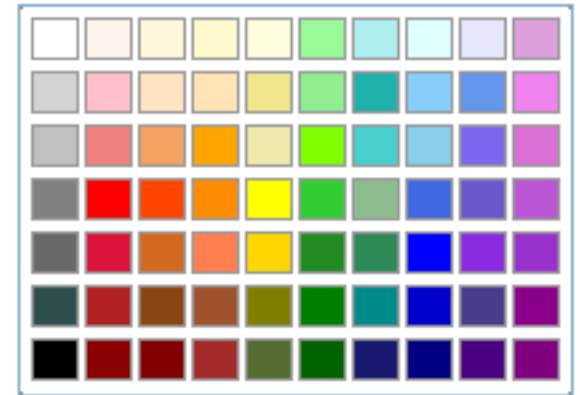
- Instantiate the object using *new*

```
dojo.require("org.eclipse.mobs.Orc");
var orc = new org.eclipse.mobs.Orc("Nick", "Widgetmakers");
orc.speak("Hello");
```



# Widgets

- Plenty of high-quality common widgets from Dijit
- Add the widgets to the page
  - Programmatically
  - Declaratively
    - dojoType attribute
- Styled using CSS



Color Palette



Horizontal Slider

# A custom widget

- Why?
- The widget class
- The template (along with style)

# How can WTP help?

- Deployment and testing
- Source editing
  - Syntax highlighting
  - Content assist
  - Templates
- Validation
  - HTML
  - JavaScript

# Widget

- Build a widget that create a photo gallery from several images
- The widget, when clicked, will cycle through the images stored within it
- The widget should have some kind of label to identify its content

# Questions?

# Get Involved!

- Newgroup:  
news://news.eclipse.org/eclipse.webtools
- Bugs: <http://bugs.eclipse.org/bugs>

# Credits

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