



**MAX 2006
Spry Framework
Overview**

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“Adoption will be primarily at the snippet and widget level, rather than at the framework or back-end-integrated level. This is because organizations will rightly move more slowly when considering alternatives that have significantly increased cost and risk.”

Gartner Research - December, 2005

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Agenda

- Why Spry?
- Spry Data Sets (AJAX)
- Spry Widgets
- Spry Effects
- Next steps
- Q & A

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Why Spry?




- For the Web Producer
 - AKA (Front-end Designer/Developer)
- Focused on Web UI and (x)HTML production
- Expert with (x)HTML & CSS
- Familiar with JavaScript & DOM
- Cares about the code

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MAX


Ajax adoption will continue its tremendous growth, at a speed that is without precedent for a software programming tool.

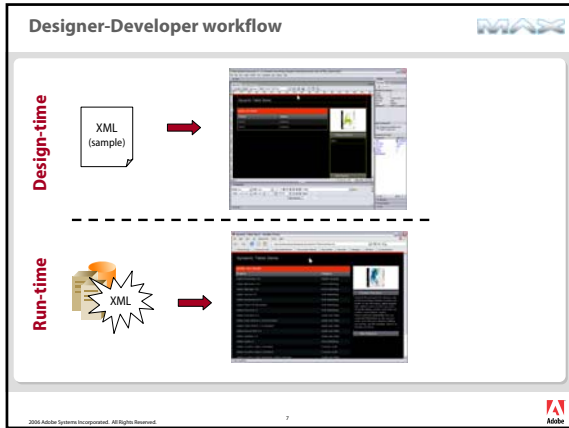
Gartner Research - December, 2005

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Spry - Guiding Principles

- Familiar, Lightweight & Transparent
 - Keep “framework” to a minimum
 - Don’t obscure the code
 - Make it feel like a natural extension to HTML
 - Integrate well with other technologies (within reason)
- Enable designer-developer workflow
 - Promote separation of design from data/content
 - Support “design-time XML”
 - A framework easily leveraged within design-time tools

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What is a Spry Dataset?

- JavaScript Object
- Loads XML data
- Manages data
 - Data types
 - Load/Reload Data
 - Current Row (Cursor)
 - Sorting/Filtering
 - Data Paging

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Demo

Spry "Product Page"
Master/Detail Pattern

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Loading data

XML Data

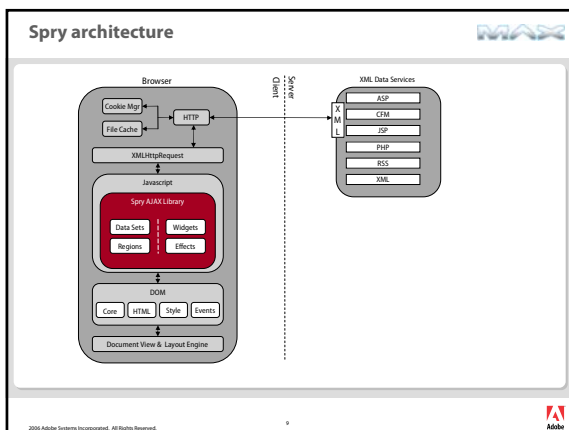
```
<?xml version="1.0" encoding="UTF-8" ?>
<songs>
  <song id="98765">
    <title>Photograph</title>
    <artist id="8576">Nickelback</artist>
    <category>Rock</category>
    <rank>1</rank>
  </song>
  <song id="54321">
    <title>Don't Lie</title>
    <artist id="5984">Black Eyed Peas</artist>
    <category>Hip-Hop/Rap</category>
    <rank>13</rank>
  </song>
</songs>
```

XML DOM Tree

XPath: songs/song

id	title	artist	artist/id	category	rank
98765	Photograph	Nickelback	8576	Rock	1
54321	Don't Lie	Black Eyed Peas	5984	Hip-Hop/Rap	13

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Adding a Dataset to your page


```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<title>2006 Ajaxian Experience - AJAX Product Demo</title>
<script type="text/javascript" src="includes/spryData.js"></script>
<script type="text/javascript">
var dsTopSongs = new Spry.Data.XMLDataSet("songdetail.xml", "songs/song");
dsTopSongs.setColumnType("rank", "number");
</script>
</head>
<body>
</body>
</html>
```

Annotations:

- Include the AJAX Library
- Create the Data Set
- Define Column Type

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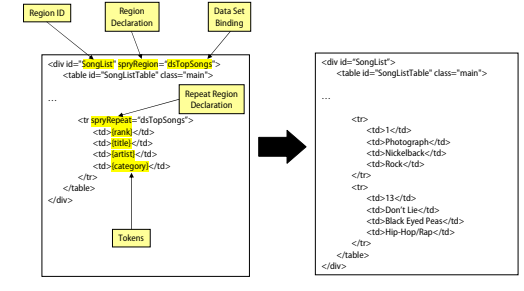
What is a Region?



- Template
- Bound to a data set
- Automatically updates when data set is modified

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Region example



```

<div id="SongList" spry:region="dsTopSongs">
  <table id="SongListTable" class="main">
    ...
    <tr>
      <td>rank</td>
      <td>title</td>
      <td>artist</td>
      <td>category</td>
    </tr>
  </table>
</div>

```

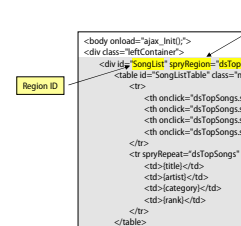
```

<div id="SongList">
  <table id="SongListTable" class="main">
    ...
    <tr>
      <td>1</td>
      <td>Photograph</td>
      <td>Nickelback</td>
      <td>Rock</td>
    </tr>
    <tr>
      <td>13</td>
      <td>Don't Lie</td>
      <td>Black Eyed Peas</td>
      <td>Hip-Hop/Rap</td>
    </tr>
  </table>
</div>

```

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Adding a Region



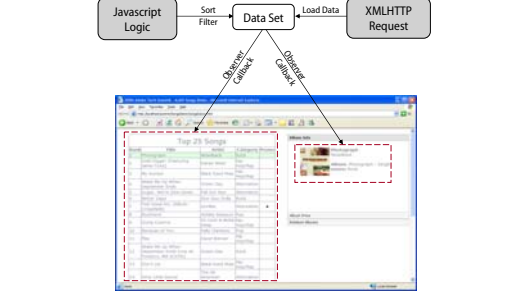
```

<body onload="ajax_init();">
  <div class="leftContainer">
    <div id="SongList" spry:region="dsTopSongs">
      <table id="SongListTable" class="main">
        <tr>
          <th onclick="dsTopSongs.sort('title');">title</th>
          <th onclick="dsTopSongs.sort('artist');">artist</th>
          <th onclick="dsTopSongs.sort('category');">category</th>
          <th onclick="dsTopSongs.sort('rank');">rank</th>
        </tr>
        <tr spry:repeat="dsTopSongs" onclick="dsTopSongs.setCurrentRow(ds_RowID);">
          <td>title</td>
          <td>artist</td>
          <td>category</td>
          <td>rank</td>
        </tr>
      </table>
    </div>
  </div>
</body>
</html>

```

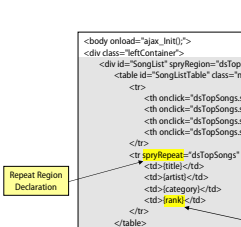
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Region auto-updates



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Adding a Region



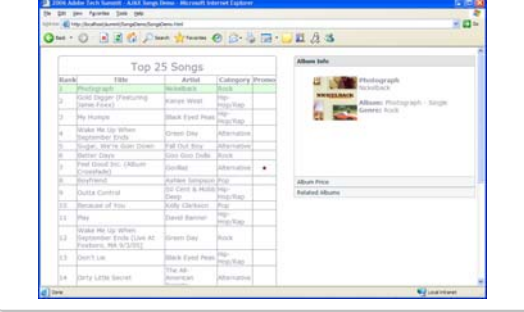
```

<body onload="ajax_init();">
  <div class="leftContainer">
    <div id="SongList" spry:region="dsTopSongs">
      <table id="SongListTable" class="main">
        <tr>
          <th onclick="dsTopSongs.sort('title');">title</th>
          <th onclick="dsTopSongs.sort('artist');">artist</th>
          <th onclick="dsTopSongs.sort('category');">category</th>
          <th onclick="dsTopSongs.sort('rank');">rank</th>
        </tr>
        <tr spry:repeat="dsTopSongs" onclick="dsTopSongs.setCurrentRow(ds_RowID);">
          <td>title</td>
          <td>artist</td>
          <td>category</td>
          <td>rank</td>
        </tr>
      </table>
    </div>
  </div>
</body>
</html>

```

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Master/Detail relationship



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Master/Detail relationship

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Spry Widgets

- Goal: Encapsulate useful UI patterns and make it easy for our target audience to incorporate these patterns into a web page.
- Spry Widgets (so far)
 - Accordion
 - Pop up menus
 - Collapsible Panel
 - Tabs

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Setting up a Master/Detail relationship

```

<script type="text/javascript">
var dsTopSongs = new Spry.Data.XMLDataSet("songdetail.xml", "songs/song");
dsTopSongs.setColumnType("rank", "number");
var dsTopSongDetail = new Spry.Data.XMLDataSet("data/SongDetails-Id&TopSongs=aj&id.xml", "song");
</script>
...
<div id="SongList" class="ajaxRegion dsTopSongs">
  <table id="SongListTable" class="main">
  ...
  
```

Diagram labels: Master Data Set, Detail Data Set, URL depends on data from the Master Data Set.

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Spry Widgets – Guiding Principals

- Widgets must be easy to modify (re-style)
- Code must be easy to understand
- HTML-centric markup
- No custom tags
- No programmatic injection of markup
- Self-contained (limit dependencies on additional libraries)

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Master/Detail relationships

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Spry Widgets - Anatomy of a Widget

- Widget Structure** – A block of HTML that specifies the structural composition of the widget.
- Widget Behavior** - JavaScript that controls how the Widget responds to user initiated events.
- Widget Styling** - CSS that specifies the default “look” of the Widget

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Spry Widgets – Accordion Code

Widget Styling

Widget Behavior

```

...
<link href="css/accordion.css" rel="stylesheet" type="text/css" />
<script type="text/javascript" src="../widgets/accordion/SpryAccordion.js"></script>
...
<div id="Acc1" class="Accordion">
  <div class="AccordionPanelTab">
    <h3>Panel 1 - Tab Header</h3>
  </div>
  <div class="AccordionPanelContent">
    <p>Panel 1 - Content</p>
  </div>
  <div class="AccordionPanelTab">
    <h3>Panel 2 - Tab Header</h3>
  </div>
  <div class="AccordionPanelContent">
    <p>Panel 2 - Content</p>
  </div>
</div>
<script type="text/javascript">
  var acc1 = new Spry.Widget.Accordion("Acc1");
</script>

```

Widget Structure

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Spry Effects

- Developing New Effects
- 5 Core Spry Effects:
 - Move
 - MoveSlide
 - Size
 - Opacity
 - Color
- Ability to 'cluster' groups of effects
- Derived from Spry.EffectAnimator
- Cluster examples in SpryEffects.js:
 - Pulsate
 - Puff
 - DropOut
 - Fold

Clustered Effects in Spry

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Spry Effects

- Spry Effects Philosophy:**
 - Simple JS Syntax
 - Single JS include
 - Small footprint (under 10k)
 - Compatible with other effect libs/frameworks (Prototype.js, in particular)
 - Focus on key interaction/UE behaviors
- The 7 Default Spry Effects:**
 - Appear/Fade
 - Highlight
 - Blind Up / Blind Down
 - Slide Up / Slide Down
 - Grow / Shrink
 - Shake
 - Squish

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A Wider View of Spry

- Standards-Compliance**
 - Namespace/DTD published for Spry attributes
 - Focus on using best-practices whenever possible
- Accessibility**
 - Inheritance of general AJAX/accessibility issues
 - spry:content attribute created for better degradation
 - What else can we do?
- Being a Good Citizen**
 - Prototype.js compatibility
 - Regular interaction and feedback from community & 'standardistas'
 - Adobe Labs & the Spry distribution model
- Downstream Thoughts**
 - Visual Toolsets & Wider Adoption - work with us!
 - Tight integration with Flex 2 for rich-media capabilities
 - The 'Apollo' project

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Spry Effects

Implementing a Spry Effect is simple...

- Include the JavaScript to document <head> section.


```
<script type="text/javascript" src="../../js/SpryEffects.js"></script>
```
- Add the event handler to supported elements*.


```
Spry.Effect.AppearFade('target',
  {duration: 1000, from: 0, to: 100, toggle: true});
```

*supported elements differ by effect, refer to Spry API docs.
- Target Element ID is required, optional params go in curly braces.

Let's look at the code...

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Get Started with Spry

- Spry Framework on Adobe Labs:**
<http://labs.adobe.com/technologies/spry/>
- Spry Developer Forums:**
<http://labs.adobe.com/technologies/spry/forum/>

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