

Working with Ext.js

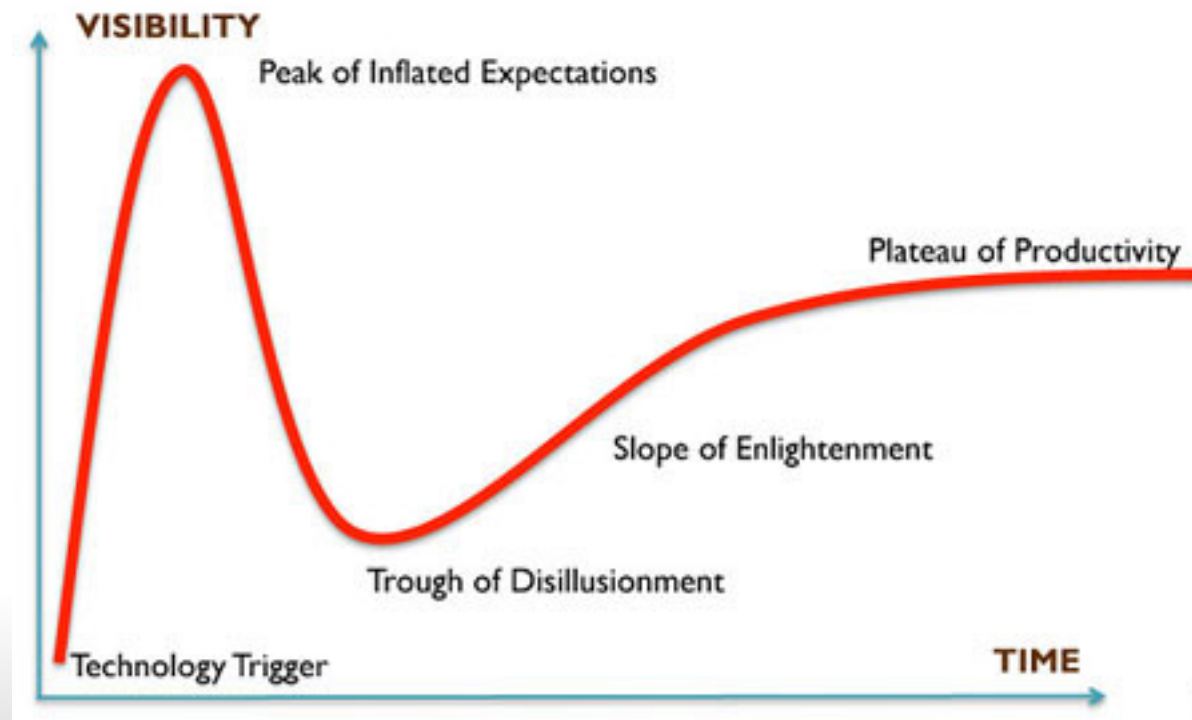
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Next Generation Application Development

Increased expectations from users:

- Portals
 - Google
 - SharePoint
- Off-line data collection
- Rich Internet 2.0 UI

AJAX and the "Trough of Disillusionment,"



Application Requirements

- RIA clients for the desktop
- A consistent user-experience across desktops
- Allow for off-line and on-line interactions
- Store and process large data sets stored on the desktop
- Anne Thomas Manes of the Burton Group has called these apps "Fit Clients"

"Fit" Clients

There are several current examples of fit clients:

- Adobe Air
- Java Web Start
- Google Gears
- SlingShot (Java Based)

Intro to Ext 2.0

- Adobe Air support
- Commercial license available
- Phone support
- Excellent API documentation and examples
- Active and responsive forum
- Web 2.0 UI

Client side vs. Server Side Frameworks

- **Client Side**

- Full api available
- Flexible deployment (air or web)
- True Rich Client (FIT)
- Flexible data sources - remote or local

- **Server Side**

- Familiar tag layout
- No large download

XML Data Sources

- Why XML?
 - readable Data
 - client needs xml

Simple XML Data Source

```
<!-- Set the content type so ext can read it -->
<cfcontent type="text/xml">
<!-- Create the XML header and then output the query -->
<cfxml variable="xmlData">
  <DATASET>
    <ROWCOUNT>
      <cfoutput>
        #qGetUsersForGrid.recordcount#
      </cfoutput>
    </ROWCOUNT>
    <cfoutput query="qGetUsersForGrid">
      <ROW>
        <USERID>#userid#</USERID>
        <USERFULLNAME>#userfullname#</USERFULLNAME>
        <DEPTNAME>#deptname#</DEPTNAME>
        <EMAIL>#email#</EMAIL>
      </ROW></cfoutput>
    </DATASET>
  </cfxml>
```

Abstract XML Conversion

```
<!---use Ray Camden's toXML CFC to convert the query to XML--->  
<cfset toXML = createObject("component", "toXML")>
```

```
<!---use the queryToXML function to convert the query dataset will  
be the name for the root node and row will be the node that  
repeats for each row in the query result--->  
<cfset callXML = toXML.queryToXML(qHistory, "dataset", "row")>
```

```
<!---convert the XML text into an XMLDocument object since we are  
returning XML--->  
<cfset parsedCallXML = xmlParse( callXML ) >
```

```
<!---Set the content returned so that Spry will recognize it as  
XML.
```

```
NOTE: This command is not needed for Flex 2.0 --->
```

```
<cfcontent type="application/xml; charset=UTF-8">  
<cfreturn parsedCallXML />
```

Using JSON Data

Why JSON?

- Compact
- Client support requires it

Conversion Tools:

- cfJson.cfc
- toJSON.cfc
- CFJson Reader

Sample JSON Data

```
{ "TOTALROWCOUNT": 9, "QUERY":  
  { "COLUMNS":  
    [ "USERID", "USERFULLNAME", "EMAIL", "DEPTNAME" ],  
    "DATA": [  
      [ "bbrown", "Bill Brown", "user@test.com", "IT" ],  
      [ "cstrahm", "Chris Strahm", "user@test.com", "Operations" ],  
      [ "guest1", "Test User", "user@test.com", "Test" ],  
      [ "guest2", "Test User 2", "user@test.com", "Operations" ],  
      [ "guest3", "Test User 3", "user@test.com", "IT" ],  
      [ "guest4", "Test User 4", "user@test.com", "Operations" ],  
      [ "lsampson", "Linda Sampson", "user@test.com", "Operations" ],  
      [ "rhansen", "Rober Hansen", "user@test.com", "Operations" ],  
      [ "rwilliams", "Bob Williams", "user@test.com", "Operations" ]  
    ]  
  }  
}
```

JSON Conversion Tools

- cfJson.cfc (<http://www.epiphantastic.com/cfjson/downloads/cfjson-1.9.zip>)
 - Bug fix for Ext: <http://extjs.com/forum/archive/index.php/t-21832.html>
- toJSON.cfc (<http://tojson.riaforge.org/>) (Like Ray Camden's toXML)

Examples