



mobile application design

week 5: HTTP Deux + Games Workshop

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Menu

- **Special Guest: Jesse Boyes**
- **Presentation**
- **Review: Homework, Setup**
- **Tips'n'tricks: JAD edition**
- **HTTP Part Deux: XML**

Special Guest: Jesse Boyes



THE WIG PROJECT 718-757-5926

Who?

Jesse Boyes: J2ME superstar

- @Vindigo from 2000-2005
- Vindigo Traffic, Couch Potato Movie Guide
- Mapquest Mobile
- @ Zingy 2005-2006
- Independent - Reuters, MTV (*Team Sanchez*)
- Check out <http://jexe.net/resume.html>

Presentation

Review: Homework / Setup

Presentation

Tips'n'tricks: JAD Edition

Check The Details

Sociallight: back in black! - Mozilla Firefox

File Edit View Go Bookmarks Tools Help del.jcio.us

Java - Application Descriptor Editor - Eclipse SDK

File Edit Navigate Search Project Run Window Help

Package Explorer Hierarchy

- Forms-A-Go-Go
- ImageMonkey
 - src
 - (default package)
 - ImageMonkey.java
 - res
 - NewsReader
 - src
 - (default package)
 - NewsReader.java
 - res
 - ZombieDetector

Application Descriptor Editor

Midlets

Define the Midlets that make up the Midlet Suite

Name	Icon	Class
ImageMonkey		ImageMonkey

Add Remove

Required Midlets Optional OTA User Defined

Problems Javadoc Declaration Console

```
<terminated> ImageMonkey [Wireless Toolkit Emulator] C:\Nokia\Devices\Nokia_Prototype_SDK_4_0\bin\emulator.exe (10/5/06 1:50 PM)
Emulator command: C:\Nokia\Devices\Nokia_Prototype_SDK_4_0\devices\Prototype_4_0_S60_MIDP_Emulator\bin\mid
```



Package Expl... Hierarchy

- CanvasDemo
- DeadJad
- DirectoryStructure
- Forms-A-Go-Go
- GeoTagMIDlet
- HelloCanvas
- HelloEclipseMe
- HelloMacMIDlet
- ImageCanvas
- ImageMonkey
- MedialInformationMIDlet
- NameThatKeyMIDlet
- NewsReader
- RSSReaderMIDlet
- TastingCanvas
- TestMIDlet
- VideoMIDlet
- VideoStreamer
- ZombieDetector

ImageMonkey.java ImageMonkey.jad

```

MIDlet-1: ImageMonkey,,src.ImageMonkey
MIDlet-Jar-URL: ImageMonkey.jar
MIDlet-Name: ImageMonkey Midlet Suite
MIDlet-Permissions: javax.microedition.io.Connector.http, javax.microedition.io.Connector.https, javax.microedition.io.Connector.media, javax.microedition.io.Connector.rss, javax.microedition.io.Connector.video
MIDlet-Permissions-Opt: javax.microedition.io.PushRegistry, javax.microedition.media.control.VideoControl.getSnapshot
MIDlet-Vendor: Midlet Suite Vendor
MIDlet-Version: 1.0.5
MicroEdition-Configuration: CLDC-1.0
MicroEdition-Profile: MIDP-2.0
ImageMonkey-URL: http://static.flickr.com/119/250758192_e284e48ff8_m.jpg

```

Outline

An outline is not a

Problems Javadoc Declaration Search Console

No consoles to display at this time.

Optional extras

Optional Properties

Optional midlet suite properties may be specified on this page

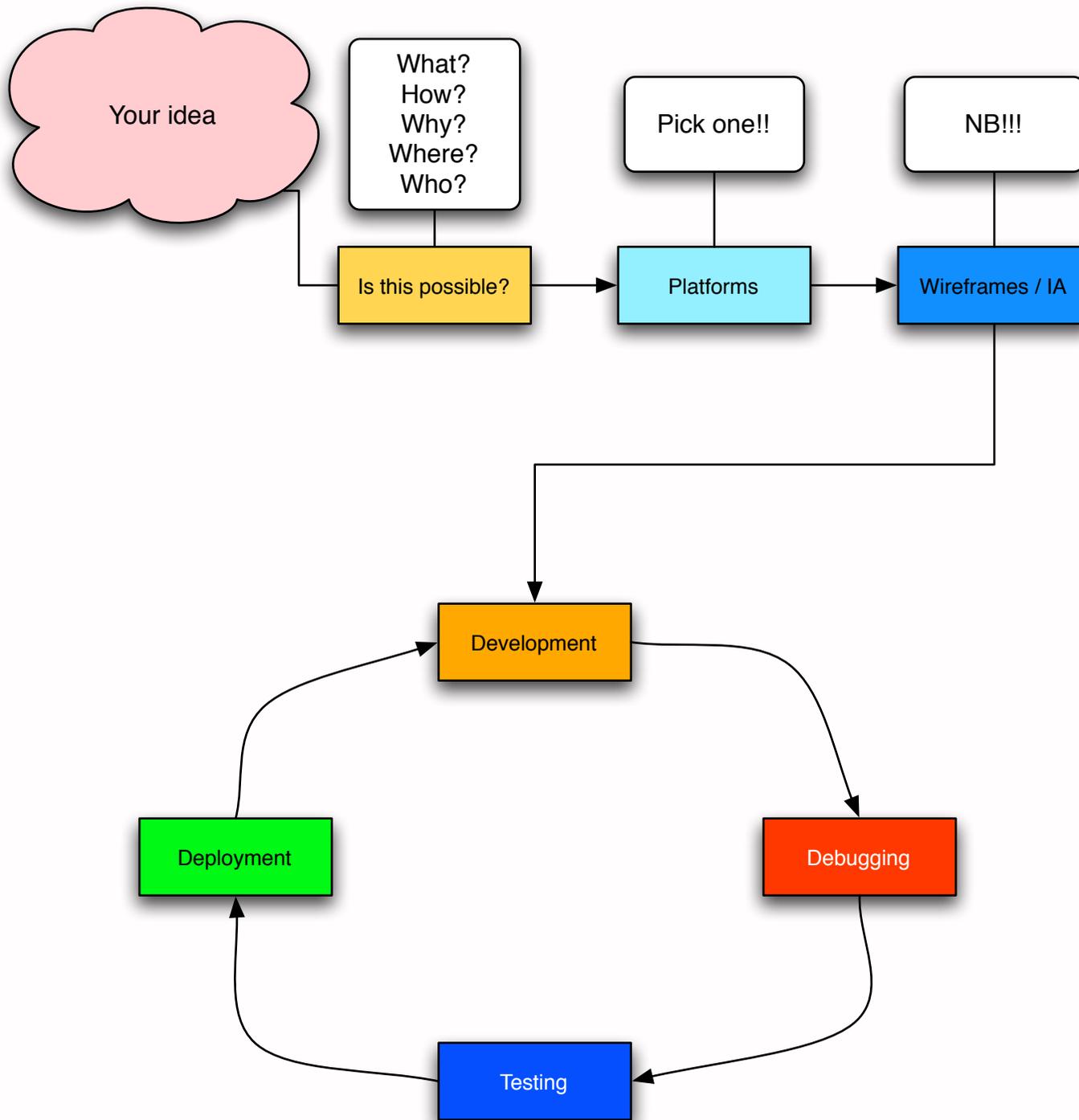
Midlet Permissions:	<input type="text"/>
Optional Midlet Permissions:	<input type="text"/>
Midlet Data Size:	<input type="text" value="0"/>
Midlet Description:	<input type="text"/>
Midlet Icon:	<input type="text"/>
Midlet Information URL:	<input type="text"/>

HTTP Gotchas

- POST is more complex
- Costs \$\$ [except for WiFi on N80 :-)]
- Affects MIDlet Security
- Set Permissions
- `javax.microedition.io.Connector.http` (and friends)

Homework Review:

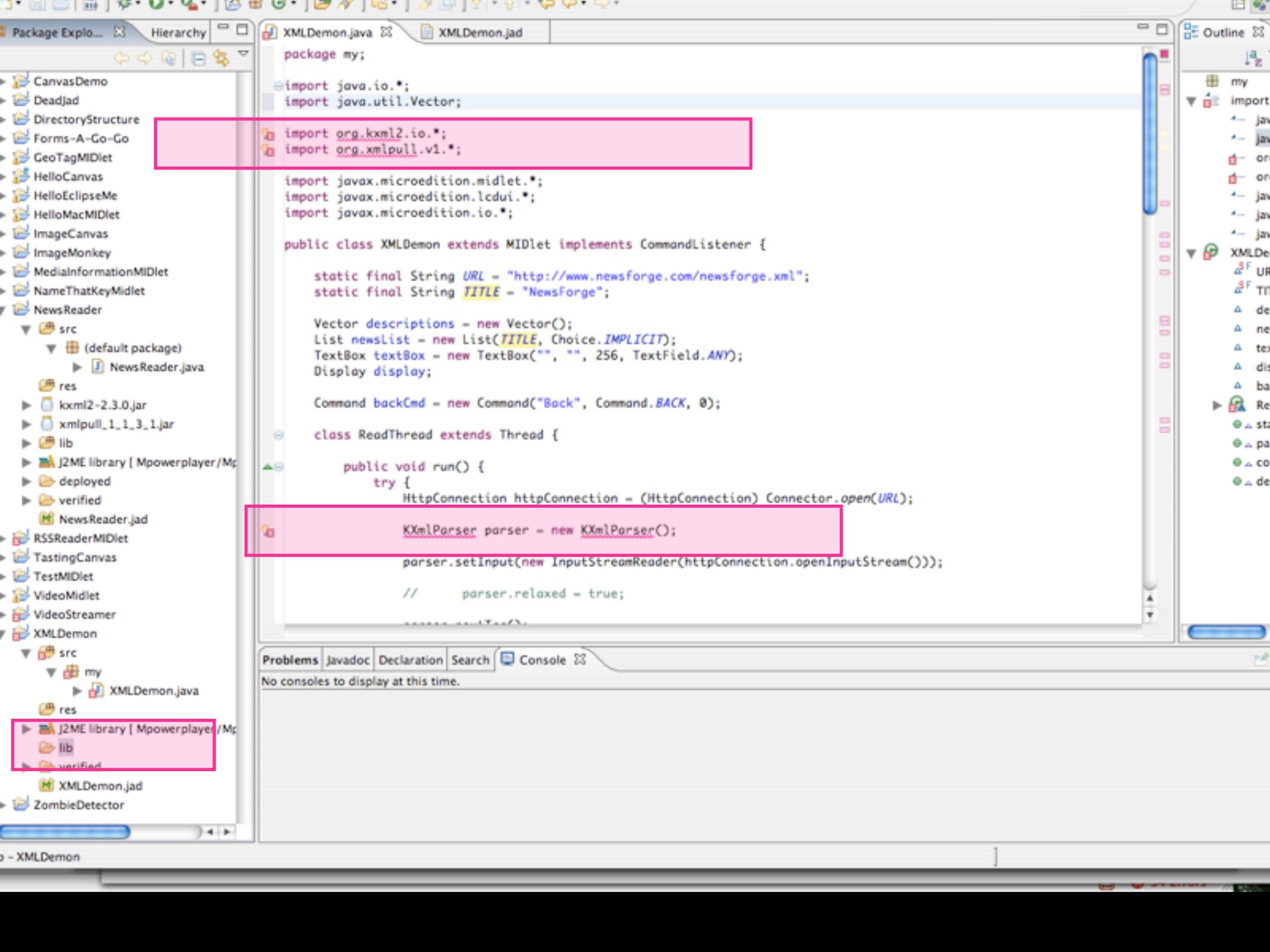
Sample Mobile Development Process



HTTP Part Deux: XML

XML parsing

- Use existing libraries
- kXML - <http://kxml.sourceforge.net/>
- NanoXML - <http://nanoxml.cyberelf.be/>
- Import libraries into code - /lib folder



```
package my;

import java.io.*;
import java.util.Vector;

import org.kxml2.io.*;
import org.xmlpull.v1.*;

import javax.microedition.midlet.*;
import javax.microedition.lcdui.*;
import javax.microedition.io.*;

public class XMLDemon extends MIDlet implements CommandListener {

    static final String URL = "http://www.newsforge.com/newsforge.xml";
    static final String TITLE = "NewsForge";

    Vector descriptions = new Vector();
    List newList = new List(TITLE, Choice.IMPLICIT);
    TextBox textBox = new TextBox("", "", 256, TextField.ANY);
    Display display;

    Command backCmd = new Command("Back", Command.BACK, 0);

    class ReadThread extends Thread {

        public void run() {
            try {
                HttpURLConnection httpConnection = (HttpURLConnection) Connector.open(URL);

                KXmlParser parser = new KXmlParser();

                parser.setInput(new InputStreamReader(httpConnection.openInputStream()));

                // parser.relaxed = true;

                parser.startTag();
            } catch (IOException e) {
                e.printStackTrace();
            }
        }
    }
}
```

Problems Javadoc Declaration Search Console

No consoles to display at this time.

Download & import kXML

kXML

[Summary](#) | [Admin](#) | [Home Page](#) | [Forums](#) | [Tracker](#) | [Bugs](#) | [Feature Requests](#) | [Mail](#) | [Screenshots](#) | [News](#) | [CVS](#) | [Files](#)

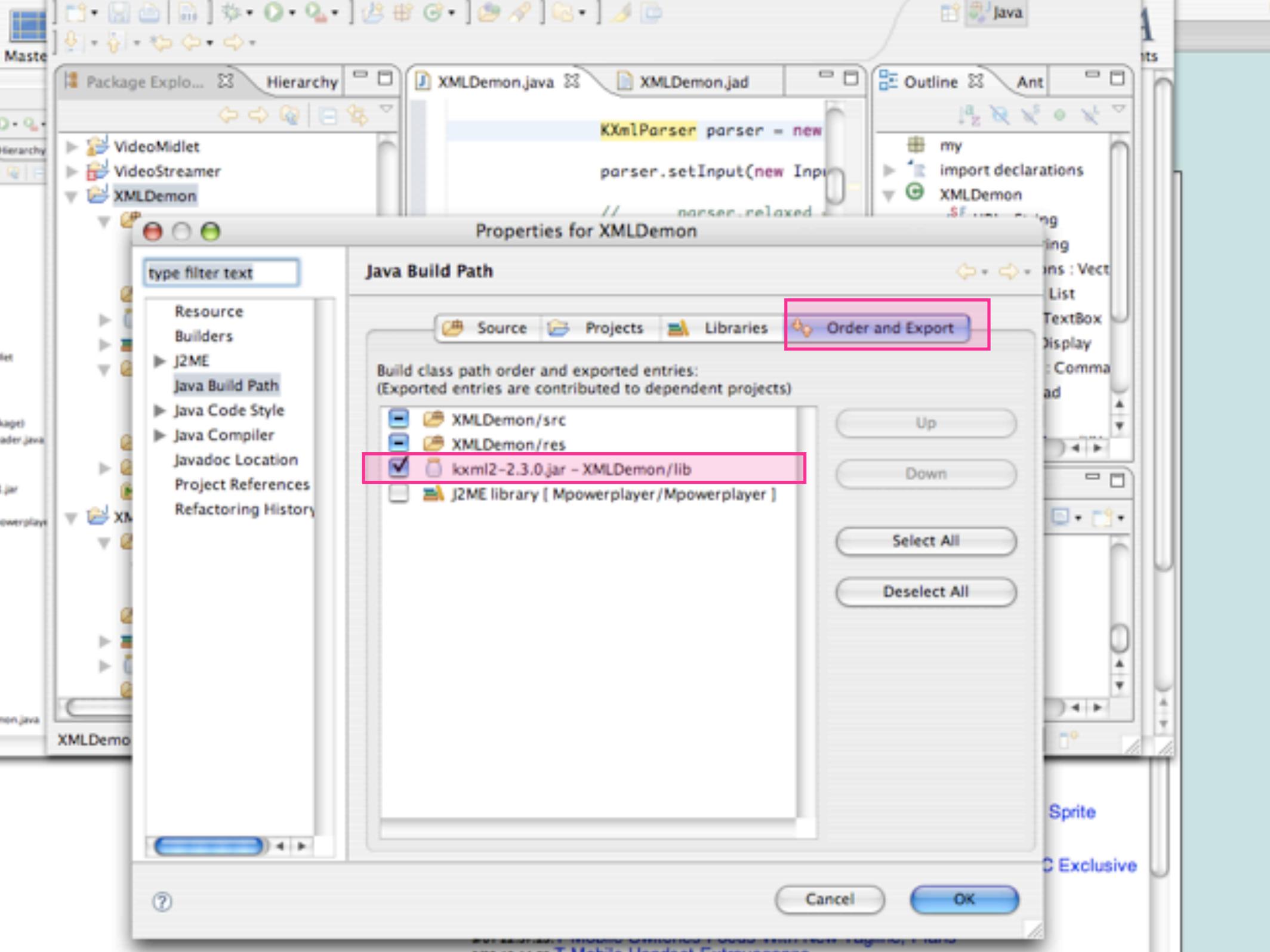
File Releases

You have selected to download kxml2
Below is a list of releases and files contained in this package. Before downloading, you may want to read the Release Notes.

Package	Release (date)	Filename	Size (bytes)	Downloads	Architecture	Type
kxml2						
Latest						
	2.3.0 [Notes] (2006-06-23 07:14)	kxml2-2.3.0.jar	43858	3767	Platform-Independent	jar
		kxml2-mini-2.3.0.jar	10649	1243	Platform-Independent	jar
		kxml2-src-2.3.0.zip	354878	2021	Platform-Independent	Source .zip
	2.2.2 [Notes] (2005-12-04 05:24)					
	2.2.1 [Notes] (2005-03-09 15:42)					
	2.1.9 [Notes] (2004-05-15 15:00)					
	2.1.7 [Notes] (2003-03-31 14:00)					
	2.1.6 [Notes] (2002-12-06 15:00)					
	2.1.5 [Notes] (2002-11-21 15:00)					
	2.1.4 [Notes] (2002-10-15 15:00)					
	2.1.3 [Notes] (2002-10-12 15:00)					
	2.1.2 [Notes] (2002-10-11 15:00)					
	2.1.1 [Notes] (2002-09-13 17:00)					

The screenshot shows the Eclipse IDE interface. In the center, a 'JAR Selection' dialog box is open. The dialog has a title bar and a main area with the text 'Choose jar archives to be added to the build path:'. Below this text is a tree view of the workspace. The 'lib' folder under the 'XMLDemon' project is expanded, and 'kxml2-2.3.0.jar' is selected. A pink rectangular box highlights the 'Add JARs...' button on the right side of the dialog. Another pink box highlights the 'lib' folder and its contents. The background shows the Eclipse Package Explorer on the left, displaying a project structure with folders like 'src', 'res', and 'lib', and files like 'NewsReader.java' and 'XMLDemon.jad'. The bottom of the IDE shows the 'Problems' and 'Console' tabs, with the message 'No consoles to display at this time.'

Export for emulation



Let the games begin!