

January 2006

# R-EVOLUTION

Newsletter for the Developer Community

For Private Circulation only

## Editorial

Dear Developers:

As we step into 2006 and take bold steps into the future, it is a good idea to look back into the year gone by and take stock of the hits and misses. The DADP member base grew substantially in 2005, as a result of DADP participating and meeting developers in a number of events across the country.

The University Relations Programme in which students work with DADP to productize their innovative ideas into full-fledged working mobile applications elicited enthusiastic response and participation from a number of student groups and engineering institutes across India. Based on developers' feedback, the DADP Web site was strengthened through addition of new testing tools and resources. DADP also announced the launch of the second Mobile Application Contest in November.

As we prepare ourselves to make DADP stronger and more responsive to the requirements of the developer community, we thought it would be a good idea to look at what our developers had to say in their comments in R-evolution last year. The 'Lead Story' section in this issue captures the minds of our developers who predict and bring their perspectives on mobile application space to the fore. Read it and who knows yours may be the next killer mobile application.

The Tech Tip section deals with multiple Midlet packaging methods. This will allow you to package more than one midlet in a single .jar file, which will help in component based application development.

As usual, we look forward to you valuable feedback and suggestions. Do write in to us at [dadp.newsletter@relianceinfo.com](mailto:dadp.newsletter@relianceinfo.com).

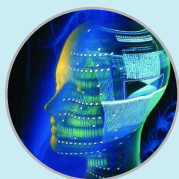
And yes, don't miss the last date – 28th Feb, 2006 - for submitting your applications for the Mobile Application Contest. Please visit [ww.dadp.com](http://ww.dadp.com) for more details.

Warm regards

*Saurabh Chakrabarti*  
DADP team

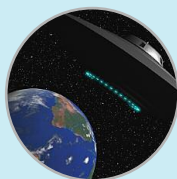
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**LEAD STORY**

# DEVELOPER SPEAK - THE BEST OF R-EVOLUTION 2005

**R**-evolution is the strongest voice of our developer community and we cherish all the inputs given by the developers featured in the 'Interview of the Month'. We've picked out the most memorable comments from the 'Interview of the Month' sections of the past issues of 2005 and put them together to capture their perspectives. This year we hope our efforts will continue to bring in more participation and success for the community.



**Sathiya Krishnan,**  
CTO, mPortal

"Reliance has created a channel for the wired community"



**Surya Pullagam**  
M D, JAMDAT Mobile

"India will be a good arena for mobile games in the future with its penetration of mobile connections"



**Nitish Mittersain**  
CEO – Nazara Technologies

"R World games are unique, very simple to play and highly addictive"



**Ashwyn Kumar Attawar,**  
CEO, Gametrix Entertainment

"Technology innovations will be spurred by competition for the domestic market and India and China will score over the rest"



**Vijay Mukhi**  
IT Expert

"Each country has its own applications. However, utility, edutainment, and entertainment applications will help win the favour of customers"



**Vijay Kumar Jain**  
Astute Systems Technology

"There is infinite space for mobile gaming in India"



**Taron Mohan**  
CEO, Phoneytunes

"The advent of BREW platform augurs well for the country"



**Vishal Gondal**  
CEO, Indiagames

"We closely work with Reliance on increasing the games market through branded content, promotions, exclusive content and specials"



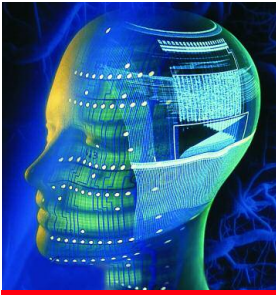
**Rajiv Hiranandani**  
Mobile2Win

"Users will pay for application which are relevant and useful"



**Saurabh Jain**  
Director, SKJ Technologies

"The lead which Reliance Infocomm has gained over its competitors in Value Added Services (VAS) is indeed vast and insurmountable"



TECH TIP

# MIDlets inside a MIDlet

**You can store more than one MIDlet inside a Jar file.**  
If you do, the device will show a menu of the MIDlets and allow the user to choose which MIDlet to run.

Here's the basic process:

1. Package class files and any resources (images, application data, etc.) into a JAR file.
2. Create a JAD file that describes the contents of the MIDlets within the JAR.
3. Run the MIDlet suite by loading the JAD file on an emulator or download the JAR and JAD files onto a device that supports J2ME and the MID Profile.

The example below includes all you need: the Java source code for two simple MIDlets, a manifest file that is stored inside the Java Archive file (jar) and a Java Application Descriptor file (jad).

```

/*-----
* Simple MIDlet1
*-----*/
import javax.microedition.midlet.*;
import javax.microedition.lcdui.*;

public class MIDlet1 extends MIDlet implements
CommandListener
{
    private Display display; // Reference to Display object
    private TextBox tbxMain; // A Textbox to display a
    message
    private Command cmdExit; // A Command to exit the
    MIDlet

    public MIDlet1() // The constructor
    {
        display = Display.getDisplay(this);
        cmdExit = new Command("Exit",
        Command.SCREEN, 1);

        tbxMain = new TextBox("Welcome", "Core J2ME",
        50, 0);
        tbxMain.addCommand(cmdExit);
        tbxMain.setCommandListener(this);
    }

```



```

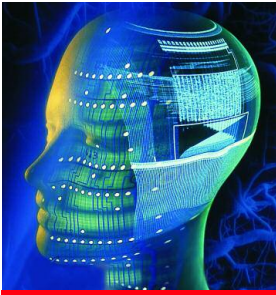
    public void startApp() // Called by application man-
    ager to start the MIDlet.
    {
        display.setCurrent(tbxMain);
    }

    public void pauseApp() // A required method
    {}

    public void destroyApp(boolean unconditional) // A
    required method
    {}

    public void commandAction(Command c,
    Displayable s) // Check to see if our Exit command was
    selected
    {
        if (c == cmdExit)

```



## TECH TIP

```

    {
        destroyApp(false);
        notifyDestroyed();
    }
}
/*-----
* Simple MIDlet2
*-----*/

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

public class MIDlet2 extends MIDlet implements
CommandListener
{
    private Display display; // Reference to Display object
    private Form frmMain; // The main form
    private TextField txfName; // A text field to prompt for
name
    private Command cmdExit; // A Command to exit the
MIDlet

    public MIDlet2() // The constructor
    {
        display = Display.getDisplay(this);

        cmdExit = new Command("Exit",
Command.SCREEN, 1);

        txfName = new TextField("Name:", "", 10,
TextField.ANY);

        frmMain = new Form("Sample Form");
        frmMain.addCommand(cmdExit);
        frmMain.append(txfName);
        frmMain.setCommandListener(this);
    }

    public void startApp() // Called by application man-
ager to start the MIDlet.
    {
        display.setCurrent(frmMain);
    }

    public void pauseApp() // A required method
    {}
}

```

```

    public void destroyApp(boolean unconditional) // A
required method
    {}

    // Check to see if our Exit command was selected
    public void commandAction(Command c,
Displayable s)
    {
        if (c == cmdExit)
        {
            destroyApp(false);
            notifyDestroyed();
        }
    }
}

```

### manifest.mf is stored as part of MIDLet.jar

```

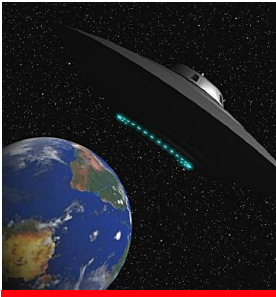
MIDlet-Name: TwoMIDlets
MIDlet-Version: 1.0
MIDlet-Vendor: Core J2ME Technology
MIDlet-1: MIDlet1,/image1.png, MIDlet1
MIDlet-2: MIDlet2,/image2.png, MIDlet2
MicroEdition-Configuration: CLDC-1.0
MicroEdition-Profile: MIDP-1.0MIDlet.jad
MIDlet-Name: TwoMIDlets
MIDlet-Version: 1.0
MIDlet-Vendor: Core J2ME Technology
MIDlet-Description: Packaging multiple MIDlets
MIDlet-Jar-URL: file://MIDlet.jar
MIDlet-Jar-Size: 3144
MIDlet-1: MIDlet1,/image1.png, MIDlet1
MIDlet-2: MIDlet2,/image2.png, MIDlet2

```

### Important Points:

- 1) The entries:  
MIDlet-1: MIDlet1,/image1.png, MIDlet1  
MIDlet-2: MIDlet2,/image2.png, MIDlet2  
must be identical in the manifest and the jad file
- 2) You can leave out the image reference, as follows:  
MIDlet-1: MIDlet1,, MIDlet1  
MIDlet-2: MIDlet2,, MIDlet2
- 3) The following attribute is optional inside the jad file:  
MIDlet-Description: Packaging multiple MIDlets

For any clarification, write to [dadp.newsletter@relianceinfo.com](mailto:dadp.newsletter@relianceinfo.com)



## VISITORS

As a part of its University Relations Programme (URP), we arranged a visit of students of institutes associated with DADP to DAKC, Navi Mumbai. Students of ISquareIT, Pune, who are developing mobile applications under URP of DADP visited us in December 2005.

Executives from SUN Microsystems Developer Programme also visited our campus.



Industrial visit of ISquare IT students to NNOG



ISquare IT students get a briefing on Reliance Infocomm operations



Delegates from Sun Microsystems Developer Program on a visit to NNOG



## FEEDBACK

The concept of developing a mobile game with assistance and support from DADP developers based in different regions in India is a truly novel idea. This way, many students and individual developers can benefit from prompt resolution of queries and know more about developing applications for Reliance Infocomm.

**Amitabh Saxena, DADP Developer, Rajasthan.**

Your article 'J2ME - Best Practises' in the 'Tech Tip' section of R-evolution December 2005 issue helped us a lot in understanding J2ME better. That was a smart article. Keep up the good work.

**Manoj Shenoy, Cochin.**

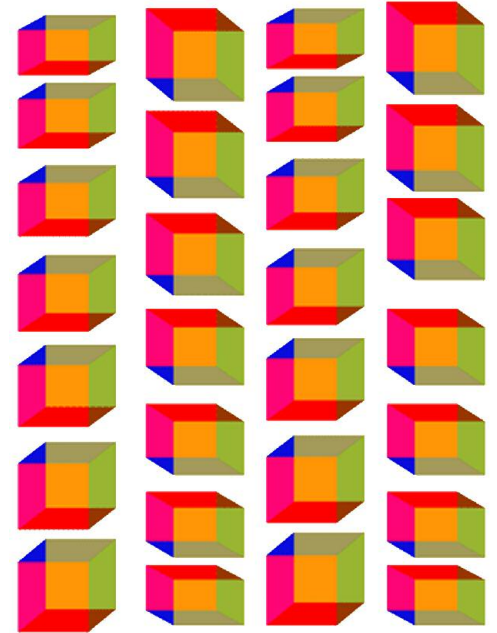
**Editor:** Dear Amitabh and Manoj. Thank you for the appreciation of our efforts. We hope our future endeavours to create interactive platforms and publish 'Best Practises' articles will be liked by you as well.



# BRAINGYM

- 1. If you add an Integer to a Properties object via the put method of Hashtable as both the key and value [props.put(anInteger, anInteger)], what happens when you try to store the Properties set to a FileOutputStream?**
  - a. The code won't compile
  - b. The toString method of Integer is called to write both the key and value as a String.
  - c. A ClassCastException is thrown because the key is not a String
  - d. A ClassCastException is thrown because the value is not a String
- 2. Which interface does Hashtable not implement?**
  - a. Cloneable
  - b. Comparable
  - c. Map
  - d. Serializable
- 3. When you use the new keyword to create an object, where is it created?**
  - a. Heap
  - b. Garbage collector
  - c. Queue
  - d. Stack
- 4. How do you force the garbage collector to run?**
  - a. Call System.gc()
  - b. Call Runtime.gc()
  - c. Either A or B
  - d. There is nothing you can do
- 5. When multiple methods exist within the same class with different method signatures, this is known as what?**
  - a. Method overloading
  - b. Overriding methods
  - c. Message passing
  - d. A headache

Answers: 1. c 2. b 3. a 4. d 5. a



## MONTHLY POSER

Students from which IIT won the second prize in the DADP Mobile Application contest 2004?

Answer to last month's poser:  
**My Pallette**  
The winner of last month's poser (through a lucky draw) is Saurabh Ganguly, Mumbai.  
Winner will receive prize by courier.

Answers to the Monthly Poser should be sent to [dadp.newsletter@relianceinfo.com](mailto:dadp.newsletter@relianceinfo.com) mentioning Monthly Poser—January 2006 as the subject with the sender's location stated. The winner will be decided on the basis of a lucky draw and walk away with a prize.

You can contribute ideas and information to R-evolution at the following e-mail address: [dadp.newsletter@relianceinfo.com](mailto:dadp.newsletter@relianceinfo.com). Please note that contributions may be edited for clarity, style or length.

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