Welcome to *User interface programming*, part I

**Administration**
- Teacher
  - Erik Borälv, room 1157
- [http://www.it.uu.se/edu/course/homepage/devgui/vt08](http://www.it.uu.se/edu/course/homepage/devgui/vt08)
  - News
  - Changes
  - Assignments

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**Course evaluation 2007**

- The good...
  - *What is your general feeling about the course?* (4.5)
  - *Java knowledge before this course* (2.54)
  - *Java knowledge after completing this course* (3.82)
  - *Is the course relevant to your education?* (4.75)
  - *How did you experience it to have practical work instead of written exam* (4.68)

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**Course evaluation 2007**

- The bad...
  - Want individual grades
  - Blog, too complicated
  - More lectures
  - More meeting time

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**Changes for 2008**

- Java 101
- A slower start
- No blog
- Diary, for individual effort
- Smaller groups, if possible

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**Course aim**

- The course is about *implementation* and *construction* – not graphical design!
  - The focus is on learning how to implement graphical user interfaces the “right way”.
- Problem-based learning
  - The course is 100% practically oriented; scientific theories provide the base, but we’ll learn it through practical experience.
Goal of the course

- After completing this course you will…
  - Be able to implement a complex graphical user interface
  - Understand how GUI:s updates themselves if correctly implemented
  - Know how to connect logic with presentation
  - Be able to make your own graphical components if it should be necessary

Course setup

- Group work
  - Tools for group-based code development
  - Similar to industry
- 4 assignments
  - New assignments handed out every second week
  - Assignments turned in every second week
- Literature
  - Bruce Eckel: Thinking in Java
  - The net

Examination

- Practical experience (Learning by doing)
- No written exam. We’ll base grades on:
  - The group’s overall result
  - Individual diary
  - Individual activity and shown understanding during group sessions
  - Presentation/documentation of solutions
- Grades: 3, 4, or 5; or ECTS (A-F) grades

Weekly group sessions

- 45 min; probably 3 groups per meeting
- Mandatory: if you are prevented from attending, report this to Erik before to the meeting
  - You will get an extra assignment if not attending (write a short paper)
- Be prepared!
  - Prepare any questions you might have
  - Bring code, screenshots

Group sessions

- You can start the group assembly directly after this lecture:
  - Slot1 (usually 13-14): A+B+C
  - Slot1 (usually 14-15): D+E+F
  - Slot1 (usually 15-16): G+H+I
  - Slot1 (usually 16-17): J+K+L
- Change time with someone if your group has difficulties a certain time.
Java

- All programming will be performed in Java 6, with an editor and a compiler
- The user interface library - Java Swing
- To get experienced in Java, it’s important with individual studies and hands-on practice
- If you are less experienced in Java, an initial effort will make everything a lot easier later on

Assignment 1

- Overall project goal: a MP3-player
  - Refined during the 4 assignments
- Deadline for assignment 1 is Thursday 31 January, 15:00.
  - Very basic. Should not be too difficult.
  - Focus is on getting started with your team members and Java+CVS+Ant+diary
- Check the course homepage for detailed instructions
CVS

- **Concurrent Versions System**
  - Handles different versions of your files and makes sure that everything is available at one place.
  - All of your code + other resources such as icons etc should be checked into the groups CVS repository.
  - To get access, fill out and turn in the CVS form.

Ant

- Build-tool. Works like ‘make’ – but better.
- De-facto standard when developing in Java.
- XML-based.
- You don’t need to know everything but should be able to understand ‘build.xml’, what it does, and how

Ant/build.xml

```xml
<!-- Starts the player. -->
<target name="run" depends="build">
  <java taskname="Player1" classname="player.ui.Player1"
    fork="true" failonerror="true">
    <jvmarg value="-Duser.language=en"/>
    <jvmarg value="-Duser.region=EN"/>
    <classpath refid="run.path"/>
  </java>
</target>

<!-- Starts the diary client -->
<target name="diary">
  <java taskname="DiaryClient" classname="kaa.diary.DiaryClient"
    fork="true" failonerror="true">
    <jvmarg value="-Duser.language=en"/>
    <jvmarg value="-Duser.region=EN"/>
    <classpath refid="run.path"/>
    <arg value=""/>
  </java>
</target>
```

Additional stuff

- **Registration**
- **Group**
  - 3 persons/group
  - Don’t forget to turn in a CVS-form
- **Headphones**
- Start to work. We will try to get the CVS:s to up and running as soon as possible.

Help

- Want more lectures? Ask!
- Don’t hesiste to ask for help with complition errors etc.
  - Bring code: on paper, in laptop, in CVS

TODO

1. Select a group
2. Fill out a CVS form
3. Make sure your tools are working
   - CVS
   - Diary
   - Java
4. Start early on assignment 1