

# UPS 2012/2013

## Cvičení 4

# Opakování / Co se nestihlo

- Několik otázek z/k předcházejícímu cvičení
- Doplnění z minula

# Obsah

- Server/klient v Jave
- Java
- Funkce
- Build.xml

# Java

- Prekladac: javac (Sun/Oracle, IBM, OpenJDK)
- Editor: Eclipse, NetBeans, vim, joe, nano
- Automaticky preklad: build.xml / ant

- Manual:

<http://docs.oracle.com/javase/tutorial/networking/sockets/index>

<http://docs.oracle.com/javase/tutorial/networking/overview/net>

- `Import java.net.*;`
- `Import java.io.*;`

# Funkce TCP/IP

- Trida ServerSocket
  - `ServerSocket( 10001, 10, InetAddress.getBy_name("localhost") );`
  - `serverSocket.accept();`
- Trida Socket
  - `Socket("127.0.0.1", 10001);`
- Streamy
  - `socket.getInputStream()`
  - `socket.getOutputStream()`

# Funkce UDP/IP

- Trida DatagramSocket
  - DatagramSocket( 10000 );
- Trida DatagramPacket
  - DatagramPacket(buffer, buffer.length);
- Vstup/Vystup
  - DatagramSocket.send
  - DatagramSocket.receive

# build.xml

```
<project name="mydemo" default="build" basedir=". ">
<target name="build" depends="server,client">
  <echo message="{basedir}"/>
</target>
<target name="server" depends="">
  <echo message="Prekladam server"/>
  <exec executable="javac" dir="{basedir}">
    <arg value="serverTCPSingle.java"/>
  </exec>
</target>
<target name="client" depends="">
  <echo message="Prekladam klienta"/>
  <exec executable="javac" dir="{basedir}">
    <arg value="clientTCP.java"/>
  </exec>
</target>
<target name="clean" depends="">
  <echo message="Mazu binarky..."/>
  <exec executable="rm" dir="{basedir}">
    <arg value="-f"/>
    <arg value="serverTCPSingle.class"/>
    <arg value="clientTCP.class"/>
  </exec>
</target>
</project>
```