Hug Your Users!

Performance Team
NetBeans
The Only IDE You Ever Need!

- Feature rich NetBeans 6.5
- Overwhelmed by functionality
- Majority needs just tiny pieces
  > Bloated
  > Slow
  > Memory hog
- Everyone wants it all
- Failure to deliver on the promise
Voices of Customers

• "IDE is getting big and heavy. Some improvements on performance could be."

• "The only drawback I see with NetBeans is the amount of memory being consumed. If I could minimize it i dare to do it."

• "I would like to make the base IDE lighter. It takes too much time on my system to load. I would prefer to load the base IDE 1st and then other plugins etc after editor."

• "MyEclipse feels snappy... NB feels constipated...”"
NetBeans 6.5 Project Usage

Source: http://statistics.netbeans.org/analytics/graph/projectsessions.jsp?minimal=2
Solution: Ergonomics IDE!

- Embrace our users
  - starts empty
  - adjust to their needs
  - be instantly ready
- Lower memory consumption
- Shorter startup time
- Less bugs reported
- Faster responsiveness
- Less memory leaks
Ergonomics IDE

- xDesigned by HIE
- Reviewed by Tech Council
  > one TCR
- Tested by QE
  > Go!
Why it this is Safe?

- Reuse existing features
  - enable/disable of modules
  - pack boundaries
  - tiny runtime add-on
- Build infrastructure
  - static analysis
  - dynamic verification
Ergonomics Project Goal

The goals is to decrease by 20% the overall consumption of system resources for users downloading full edition and using only limited functionality.
## Ergonomics Project Reality

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Full IDE</th>
<th>Ergonomics IDE</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without any project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>warm</td>
<td>10750ms</td>
<td>6339ms</td>
<td>-42%</td>
</tr>
<tr>
<td>cold</td>
<td>21291ms</td>
<td>16605ms</td>
<td>-23%</td>
</tr>
<tr>
<td>With J2SE project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>warm</td>
<td>11845ms</td>
<td>8660ms</td>
<td>-27%</td>
</tr>
<tr>
<td>cold</td>
<td>23164ms</td>
<td>19852ms</td>
<td>-14%</td>
</tr>
<tr>
<td>PHP AirAlliance sample</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>warm</td>
<td>11648ms</td>
<td>7998ms</td>
<td>-32%</td>
</tr>
<tr>
<td>cold</td>
<td>22021ms</td>
<td>17622ms</td>
<td>-20%</td>
</tr>
<tr>
<td>Ruby Depot sample</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>warm</td>
<td>11893ms</td>
<td>8142ms</td>
<td>-31%</td>
</tr>
<tr>
<td>cold</td>
<td>22778ms</td>
<td>18039ms</td>
<td>-21%</td>
</tr>
<tr>
<td>C++ Freeway Simulator sample</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>warm</td>
<td>11595ms</td>
<td>7798ms</td>
<td>-33%</td>
</tr>
<tr>
<td>cold</td>
<td>22122ms</td>
<td>18081ms</td>
<td>-18%</td>
</tr>
</tbody>
</table>
Outstanding Work

• Implemented, integrated, fixed
• Infrastructure enhancements
  > implemented by performance team
• Bugs rediscovered
  > already present
  > just made more important
  > usually missing listener (gsf, j2eeserver)
• Eliminate “needs restart”
  > misused (gsf, libraries)
Outstanding Work cont.

• Interaction with surroundings
  > Installer cooperation (in progress)
  > Debugger static analysis (planned)
  > Project static analysis (planned)
  > Profiler API (nice to have)
  > Open file support (planned)

• General architecture flaws
  > extensible project types
Embrace our users!

Q&A

http://wiki.netbeans.org/FitnessForever