

Strategic reuse with software product lines

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Different devices, 15 to 60 different applications...



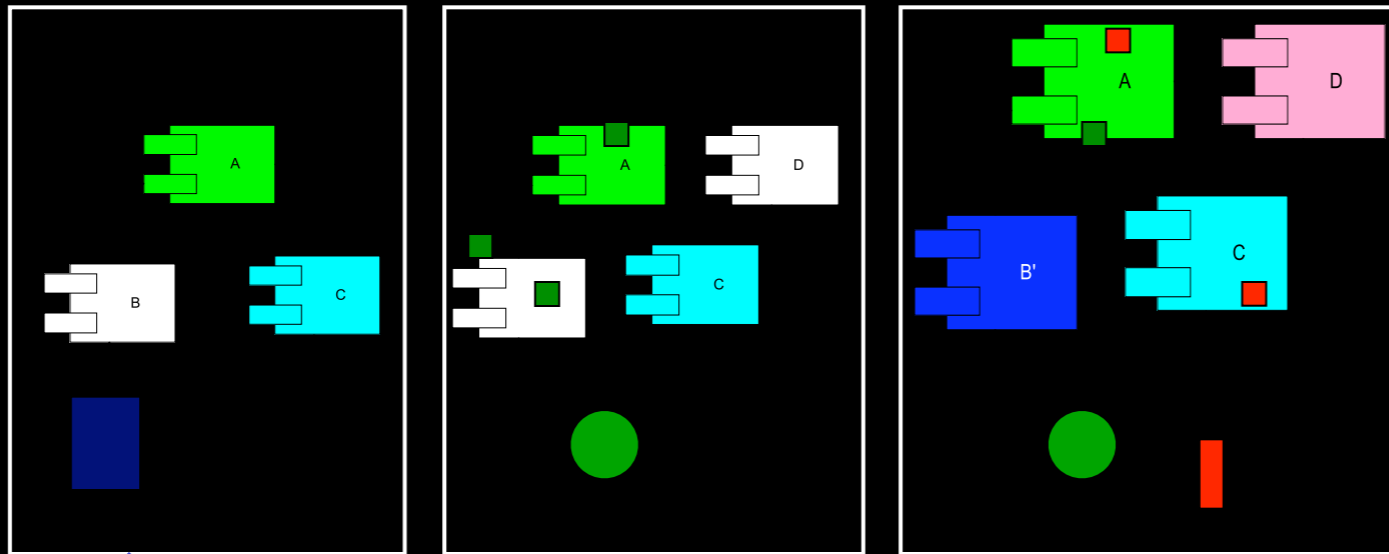
Different clients,
different products

64kb, flip

4Mb, flip

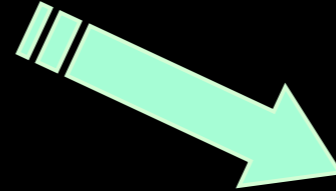
100Kb, sem flip

Little reuse and agility, high costs



Even with
J2ME!

```
WinDiff
C:\vander\search\projects\cesar\rain_lates\60\src\org\cesar\rain : C:\vander
enemy.java
100 public void draw(Graphics g) {
101     if(this.isVisible()) {
102         int offsetX = 0;
103         if (this.collisoncount <= 0) {
104             // Draws the dragon
105             g.setClip(this.getX(),
106                 this.getY(),
107                 this.getWidth(),
108                 this.getHeight());
109             if (this.getSpeed() > 0) {
110                 if (this.openMouth > 0 || (this.isSpecial && this.isFiring)){
111                     offsetX = -7*(this.getWidth());
112                 } else {
113                     offsetX = -1*(MainCanvas.Frame%7 * (this.getWidth()));
114                 }
115                 g.drawImage(this.getImage(),
116                     this.getX()+offsetX,
117                     this.getY(),
118                     g.TOP | g.LEFT);
119             } else {
120                 if (this.openMouth > 0 || (this.isSpecial && this.isFiring)){
121                     offsetX = 0;
122                 } else {
123                     offsetX = this.getImage().getWidth()-this.getWidth() - (MainCanvas.Frame%7 *
124                         (this.getWidth()));
125                     DirectGraphics dg = DirectGLIS.getDirectGraphics(g);
126                     dg.drawImage(this.getImage(),
127                         this.getX()-offsetX,
128                         this.getY(),
129                         g.TOP | g.LEFT,
130                         DirectGraphics.FLIP_HORIZONTAL);
131                 }
132             }
133             // Draw the breath of Fire
134             if (this.isSpecial && this.isFiring) {
135                 offsetX = -1*(MainCanvas.Frame%2) *
136                     (this.getWidth());
137                 g.setClip(this.getX()+this.getWidth()/2,
138                     this.getY()+this.getHeight(),
139                     this.getWidth(),
140                     this.getHeight());
141             }
142         }
143     }
144 }
```



Productivity

and

Quality

[http://twiki.cin.ufpe.br/
twiki/bin/view/TAES/
LPS201001](http://twiki.cin.ufpe.br/twiki/bin/view/TAES/LPS201001)

Teaching
Teaching &
Understanding
Understanding

Intended learning outcome

- Model and structure a software product line
 - feature model and configuration knowledge
 - use cases and code artifacts
- Refactor a software product line
- Evaluate and summarize recent research results on software product lines

Intended learning outcome

- Analyze and explain benefits and drawbacks of developing a family of web applications with
 - product line approach
 - ad hoc approach
- Develop a business case for a software product line

Applications

- Research group management system
- Technical colaborators management system

Introduce yourself...

- Name
- Context (course, thesis focus)
- What do you expect from this course?

Choose your
group, now!

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