



Developing DOFUS 2.0

Overcoming challenges in Flash/AS3 MMOG development

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The Project

- DOFUS 2.0 is a full rewrite of DOFUS on the client side, with some refactoring on the server side
- Moving from AS1/2 – Flash 7 to AS3 – Flash 10
- Giving a five years old game a new youth !



The Challenges

- A massive, scalable game based on the Flash Platform
- Bigger, better and faster than DOFUS, on the same hardware
- Looking as good as possible !

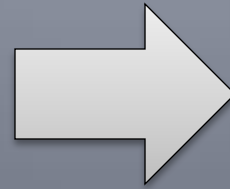


A few practical cases

- Animation Engine
- Tools

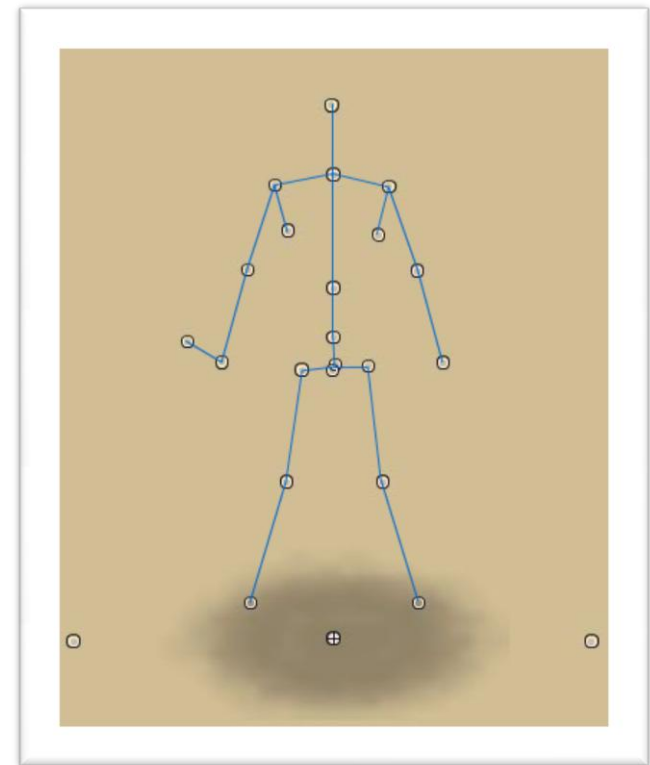


The Animation Engine



Codename "Tiphon"

- Bones-based animation
- Allowing high quality sprites
- Focused on performances



“Tiphon”: The Objectives

- More than 20 different equipable slots on the playable characters bones
- Colorizable independent skin parts
- 25 frames per second and framerate independent animations
- Event-aware animations for FX and audio synchronization

“Tiphon”: How We Did It

- Self-registering parts for skinning, colorization and sub-models
- Dynamic render-to-texture with smart caching
- Time-independent framerate
- Using labels for events

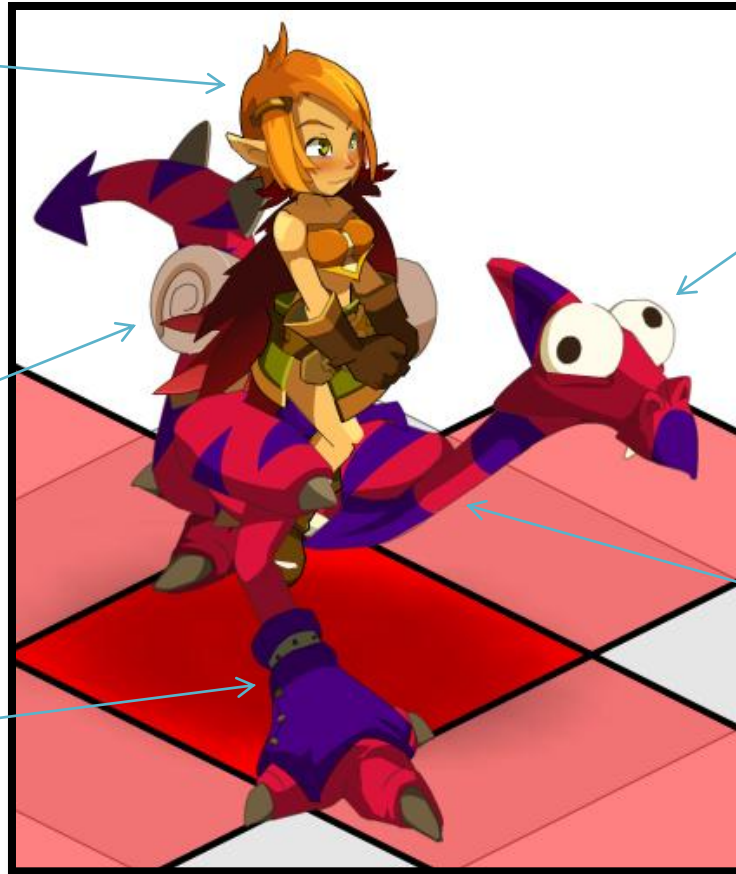


“Tiphon”: The Result

Skinned dynamic bone

Flexible time-based framerate

Live render-to-texture and smart caching

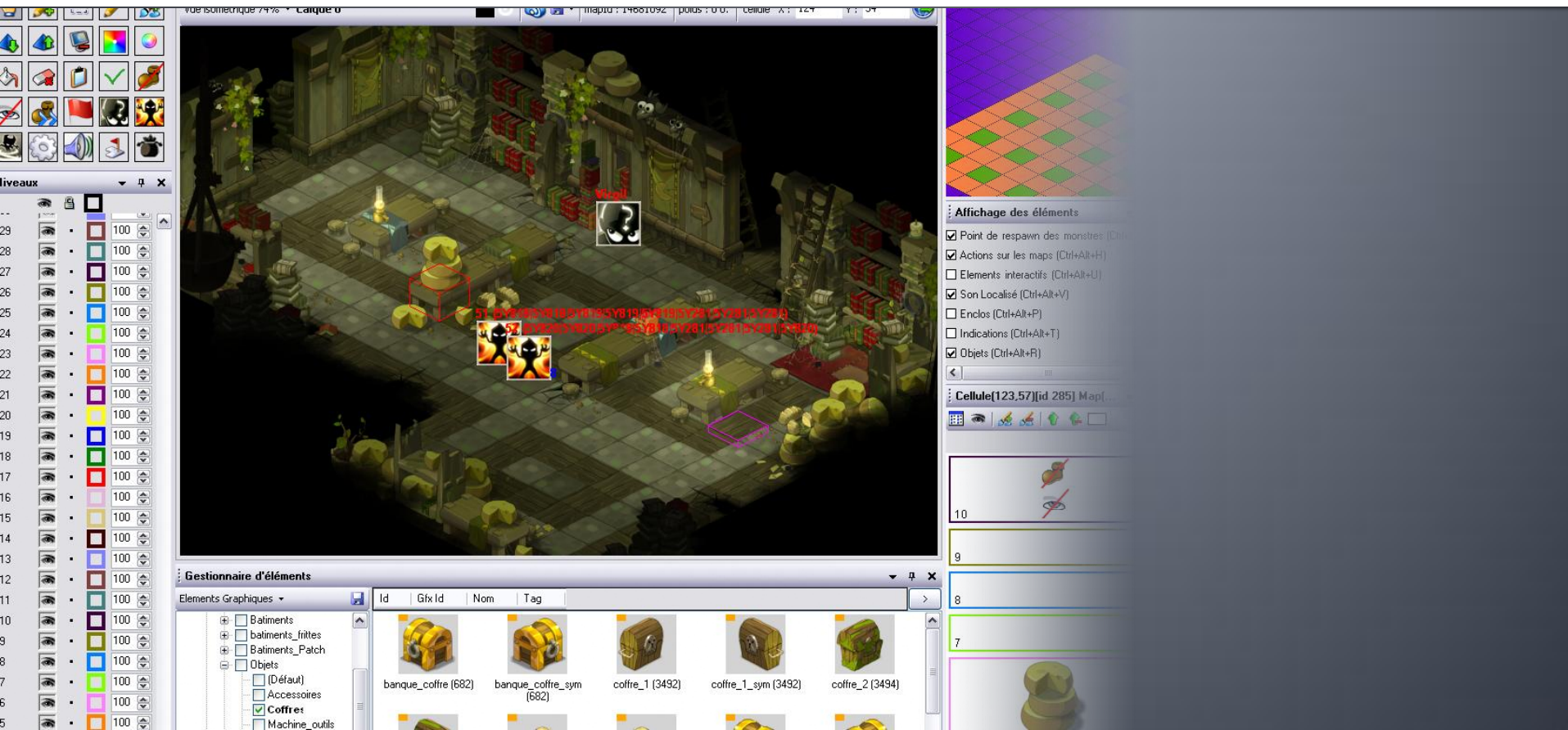


Independent but combinable entities – any combination is possible

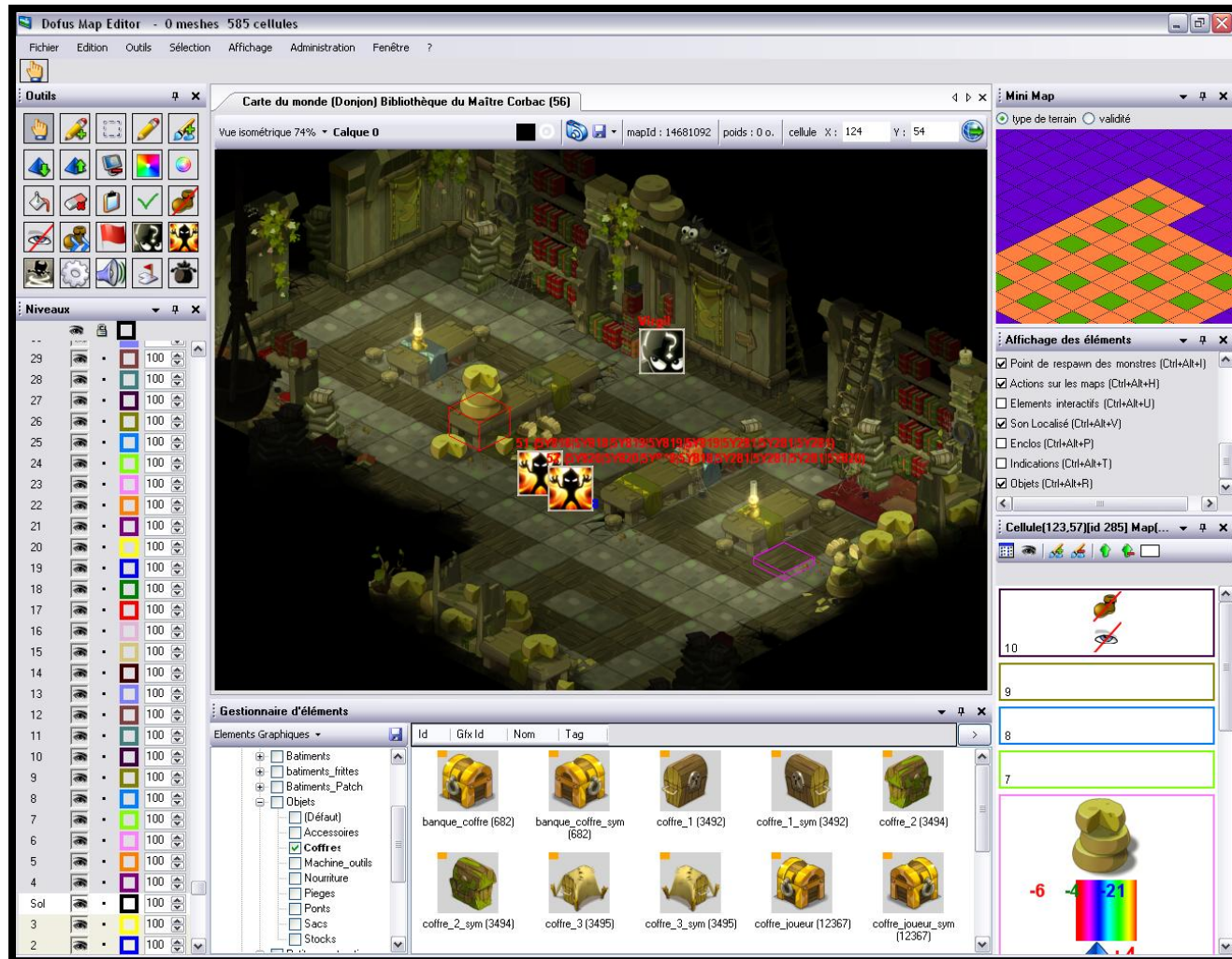
Dynamically colored entity

And... Performances!

The Tools



"Alea" - The Map Editor



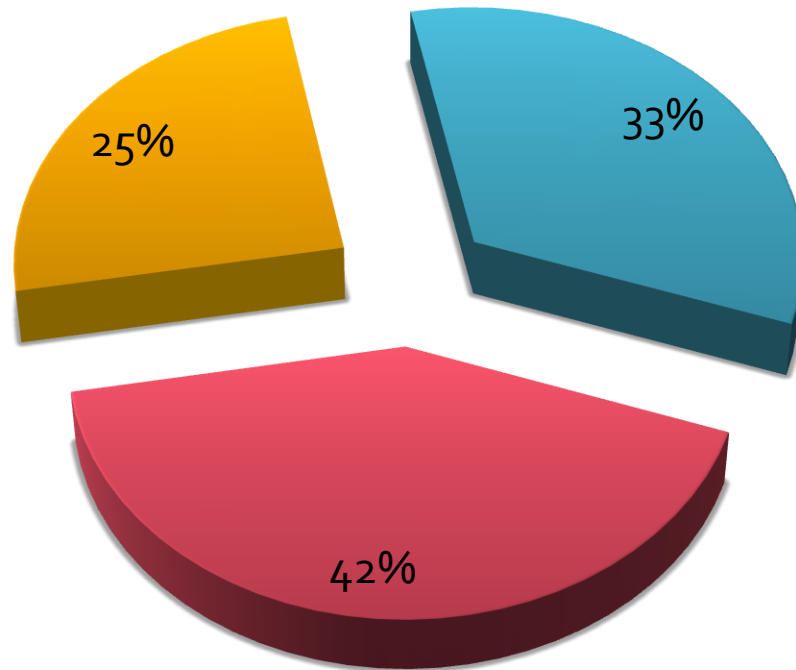
The Countless Others

- AGT (Ankama Games Toolkit)
- The DofuScript compiler
- In-house library format
- Custom build plugins (Ant and Maven)
- Many JSFL commands
- Benchmarking and testing tools
- Patching and updater system
- Logging and bug tracking
- Network analysis



Tools vs. The World

■ Client
 ■ Server
 ■ Tools



Repartition of Lines of Code

Don't Forget The Tooling

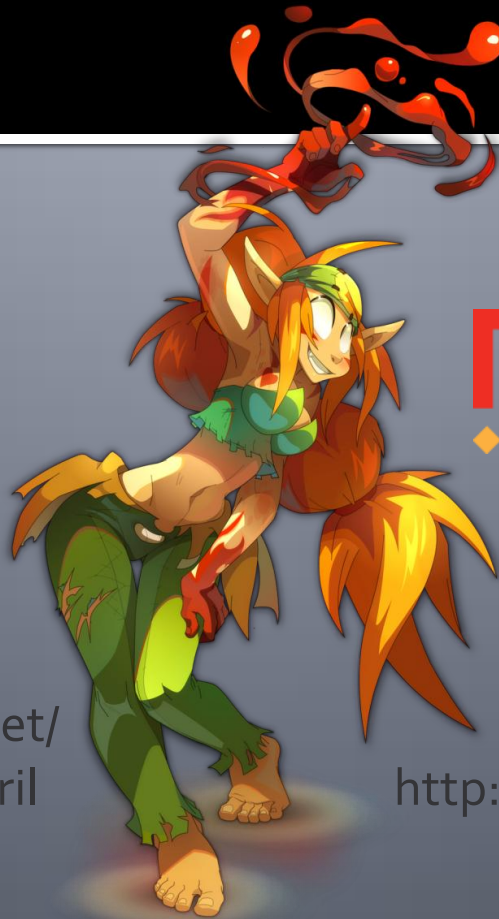
... Even with Flash games !

- Keys :
 - Tools are bound to a concept, not to a project
 - Tools are designed with productivity in mind, not (especially) to be quickly done
 - Tooling is costly, but lack of tools is way more expensive

Contact Information

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