

Breaking into the Games Industry with Open Source Software

22nd April 2014

Castilla – La Mancha University

David Saltares Márquez

BACKGROUND



Cádiz University - BSc Computer Science



2

0

10

Granny's Bloodbath



Sion Tower



Life



Mana

Experience

295

Time

00:06

Pause



Kingston University - MSc Games Technology

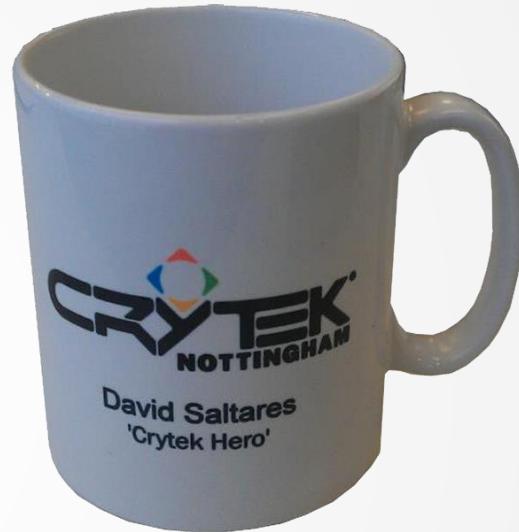
Laps 0-3

Urban Race



00:40:29

080 KM-H



Crytek UK - Nottingham



CRYENGINE®

POWER SUPPLY



Crysis 3

Ryse: Son of Rome



CRYENGINE®



Sony Computer Entertainment Europe

MAKING AAA GAMES

The need to be **agile**

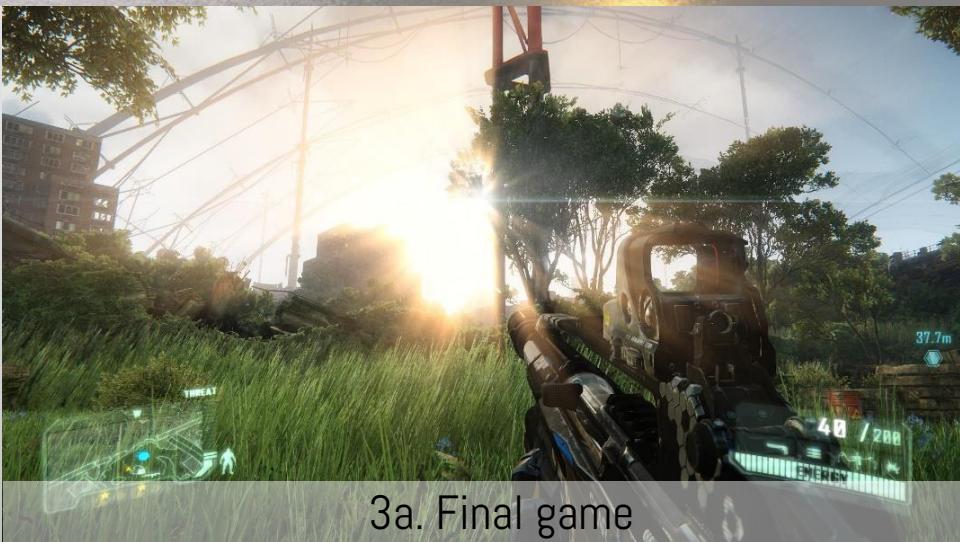




1. Idea



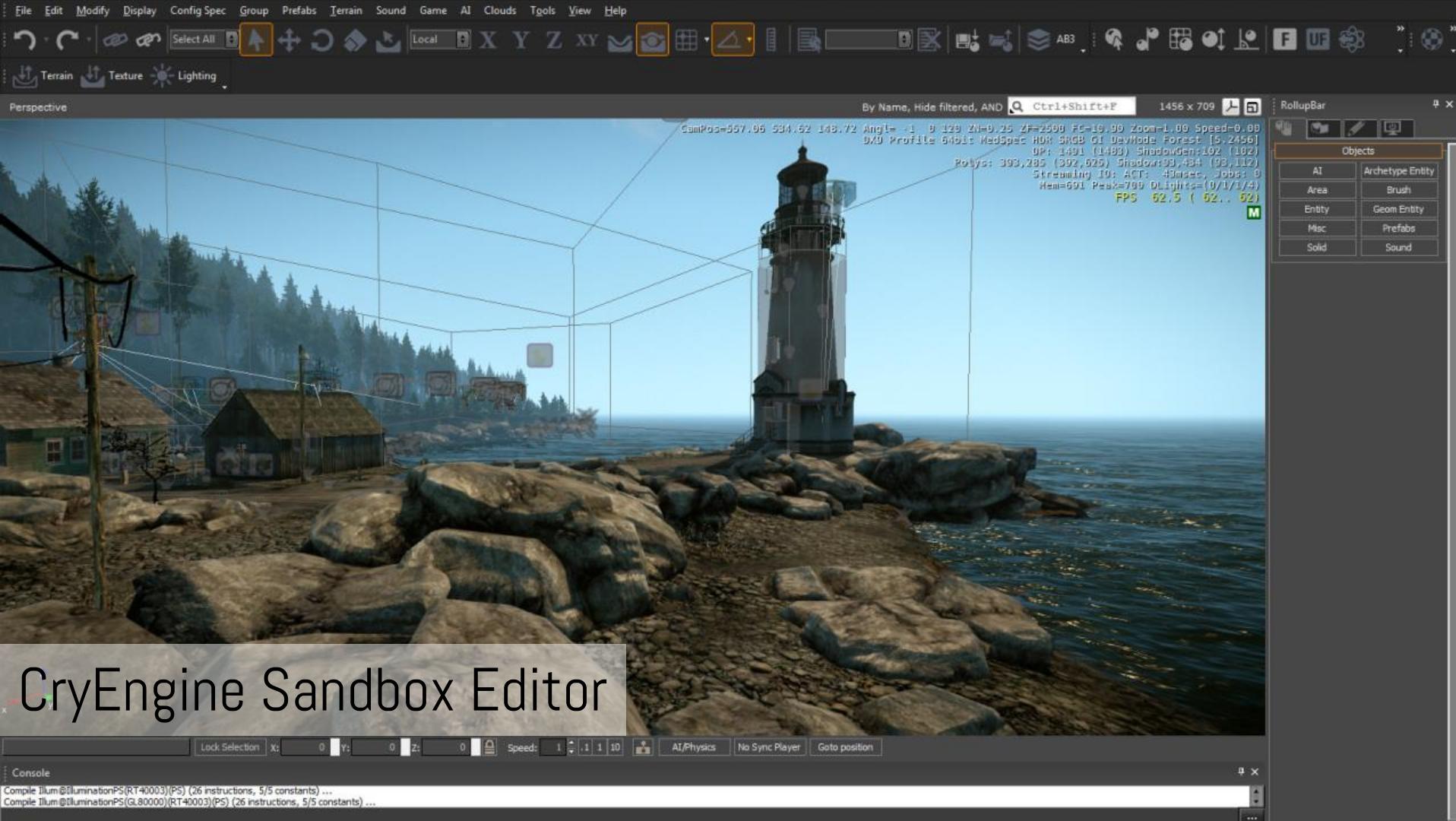
2. Prototype – Whitebox level - Iteration



3a. Final game



3b. Dumpster



CryEngine_GameCodeOnly - Microsoft Visual Studio

FILE EDIT VIEW PS4 RAZOR CPU VASSISTX PS4 RAZOR GPU PROJECT BUILD DEBUG TEAM SQL TOOLS TEST ANALYZE WINDOW HELP

Local Windows Debugger Auto Debug Win32

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

CryAction (Visual Studio 2010)

CryGameSDK

Actor Files

AI

- Behavior Tree
 - BehaviorTreeNodes_Game.cpp
 - BehaviorTreeNodes_Game.h
- Corpses
- HazardModule
- Modules
 - AloneDetectorModule.cpp
 - AloneDetectorModule.h
 - IGameAIModule.h
 - RangeModule.cpp
 - RangeModule.h
 - SearchModule.cpp
 - SearchModule.h
 - StalkerModule.cpp
 - StalkerModule.h
- Radio Chatter
- RateOfDeath
- AdvantagePointOccupancyControl.c
- AdvantagePointOccupancyControl.h
- Agent.h
- Agent.inl
- AIAwarenessToPlayerHelper.cpp
- AIAwarenessToPlayerHelper.h
- ABattleFront.cpp
- ABattleFront.h
- AICounters.cpp
- AICounters.h
- ABSquadManager.cpp
- ABSquadManager.h
- Assignment.h
- DeathManager.cpp
- DeathManager.h
- EnvironmentDisturbanceManager.cpp
- EnvironmentDisturbanceManager.h
- GameAIEnv.cpp
- GameAIEnv.h
- GameAIHelpers.cpp
- GameAIHelpers.h

SearchModule.h RangeModule.h BehaviorTreeNodes_Game.cpp BehaviorTreeNodes_Game.h SearchModule.cpp

```
37     return NULL;
38 }
39 }
40
41 namespace BehaviorTree
42 {
43     class HoldFormation : public Decorator
44     {
45         typedef Decorator BaseClass;
46
47     public:
48         struct RuntimeData
49         {
50             bool formationSet;
51
52             RuntimeData() : formationSet(false) {}
53         };
54
55         HoldFormation()
56             : m_formationNameCRC32(0)
57         {
58
59     }
60
61         virtual void OnInitialize(const UpdateContext& context)
62     {
63         BaseClass::OnInitialize(context);
64
65         RuntimeData& runtimeData = GetRuntimeData<RuntimeData>(context);
66
67         runtimeData.formationSet = false;
68         if (SetFormation(context))
69         {
70             runtimeData.formationSet = true;
71         }
72     }
73
74         virtual LoadResult LoadFromXml(const XmlNodeRef& xml, const LoadContext& context)
75     {
76         const char* formationName = xml->getAttr("name");
77         if (!formationName)
78         {
79             gEnv->pLog->LogError("Missing 'name' attribute for Formation behavior tree node, at line %d.", xml->getLine());
80             return LoadFailure;
81         }
82
83         m_formationNameCRC32 = gEnv->pSystem->GetCrc32Gen()->GetCRC32Lowercase(formationName);
84
85         return LoadChildFromXml(xml, context);
86     }
87 }
```

Quick Launch (Ctrl+Q)

Server Explorer

Toolbox

Properties

Visual Studio



Continuous testing

It's very easy to break stuff



It's done! Where is my fame and success?



How?



Open source → Portfolio → Profit

WHAT GAMES COMPANIES LOOK FOR

Let's check online



LinkedIn



Excellent C++ skills



- BSc
- 3D maths
- Efficiency
- Debugging
- Reading code
- Communication
- Consoles
- APIs

Finished games!



HOW TO GET THE SKILLS

Don't limit yourself to this while at University



Get involved instead!



Cádiz University SDL workshop 2011

Game Jams

ONE GAME A MONTH
MAKE GAMES. NOT EXCUSES.

global game jam™

Ludum Dare

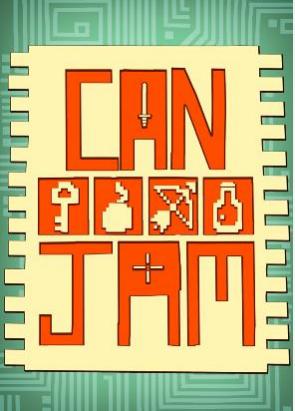
GAMES[4...]JAM

ORCAJAM 4
September 6th-8th
6pm - 6pm

48 Hour Game Jam

Extreme game development

Calendar:
Compohub.net



This was pretty awesome



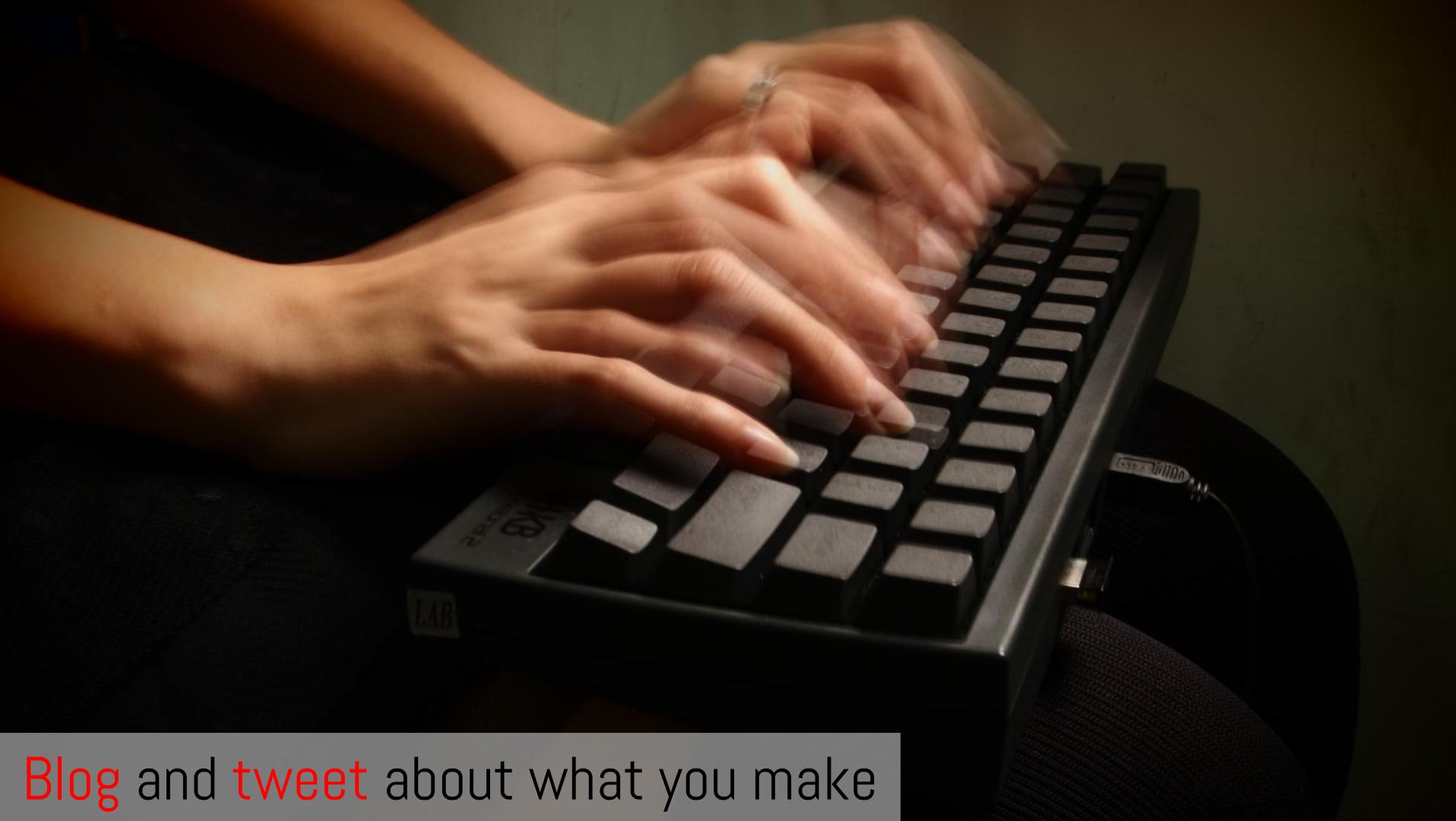
Lincoln University Can Jam 2013

Ammo

x 1



Evolution: Survival of the Fittest



Blog and tweet about what you make



David Saltares

siondream

📍 Nottingham, United Kingdom

✉️ david.saltares@gmail.com

🌐 <http://siondream.com>

⌚ Joined on Jan 18, 2011

31

followers

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following

Organizations



Contributions

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65 ★

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Take desktop screenshots and glue them ...

8 ★

💻 [sioncore](#)

Small game engine built on top of Libgdx ...

6 ★

💻 [ashley](#)

A Java entity system inspired by Ash & Art...

2 ★

💻 [urbanrace](#)

Time attack racing game written in C# usi...

1 ★

Repositories contributed to

💻 [libgdx/libgdx](#)

Desktop/Android/HTML5/iOS Java game ...

3,167 ★

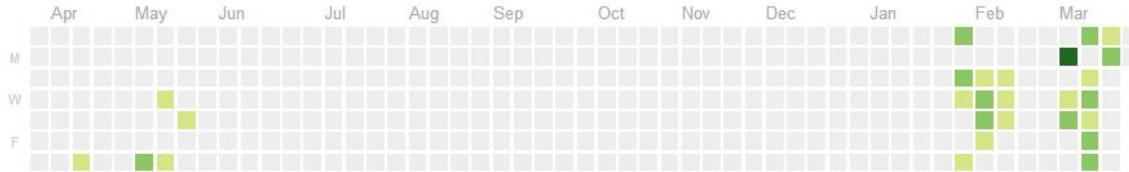
💻 [stbachmann/ashley](#)

A Java entity system inspired by Ash & Art...

34 ★

Put your code
somewhere **visible**

Your Contributions



ⓘ Summary of Pull Requests, issues opened and commits. Learn more.

Less More

74 Total

Mar 31 2013 - Mar 31 2014

7 days

March 18 - March 24

0 days

Rock - Hard Place

Year of Contributions

Longest Streak

Current Streak



Enter the Open Source University Contest



Desktop/Android/BlackBerry/iOS/HTML5 Java game development framework

Work on a **big** open source project

Start creating awesome
games NOW!

[Get Started](#)



Cross Platform

Publish your games on Windows, Mac, Linux, Android, iOS, BlackBerry and HTML5, all with the same code base.



Open Source

libgdx is licensed under Apache 2.0 and maintained by the community. Contribute today!

[Contribute](#)

[Donate](#)



Feature Packed

Comes with batteries included. Write 2D or 3D games, let libgdx worry about low-level details.

[Features](#)



Super Fast

Heavy emphasis on avoiding garbage collection for Dalvik/JavaScript by careful API design and



Documentation

Learn libgdx inside out on the Wiki, study the Javadocs, or read a third-party tutorial. Learn



Community Support

Get great support from a big and growing community of game and application developers.

Contact info



david.saltares@gmail.com



siondream.com



github.com/siondream



twitter.com/siondream

Questions?