



MAGMAGEDDON

ETH Game Laboratory 2009 – Public Presentation
Christian Oberholzer, Janick Bernet, Dominik Käser

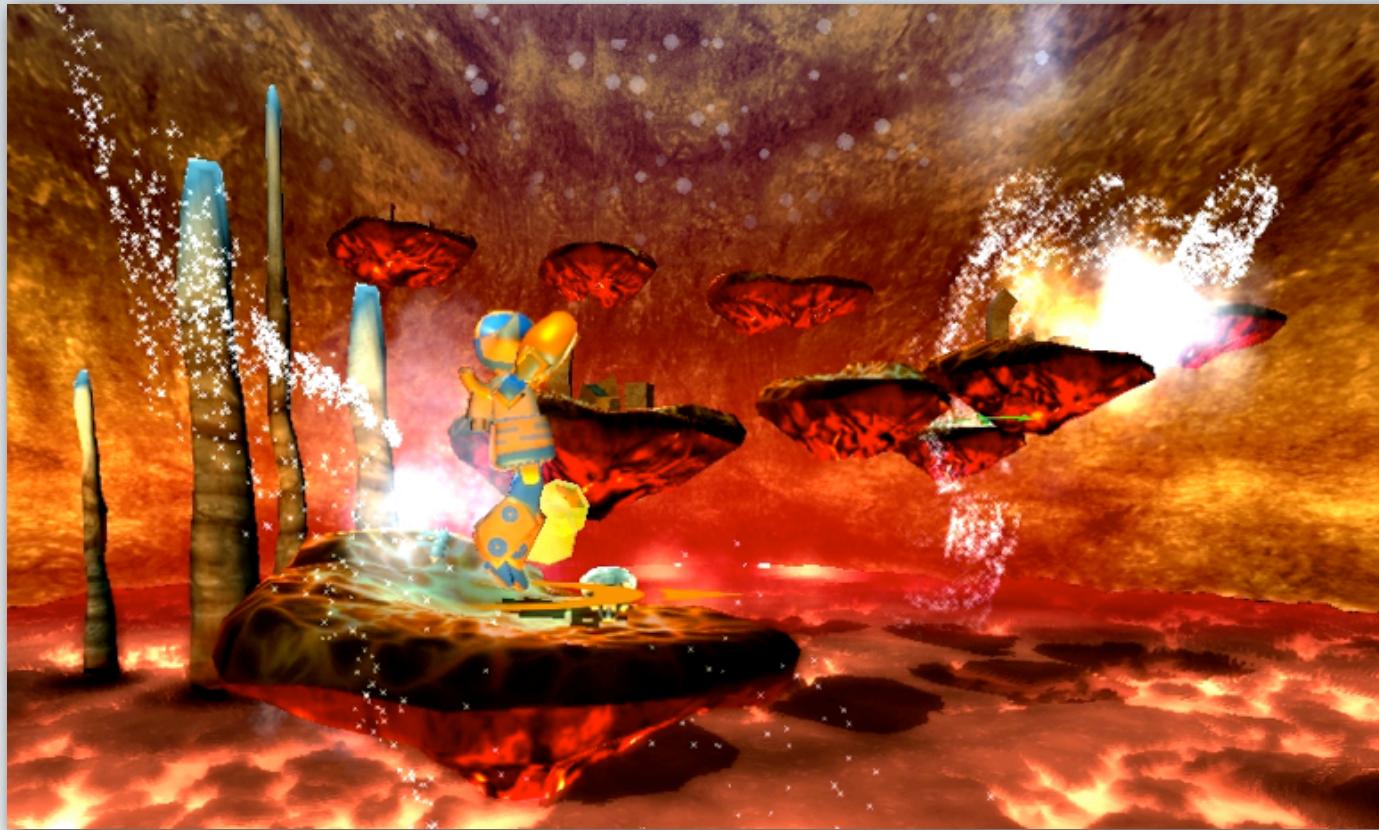
AS THE EARTH'S
RESOURCES
BECAME RARE ...





Magmarctica





GAMEPLAY



Multiplayer Jump & Run
on Platforms



All vs. all,
last man standing wins

ATTACK TYPES



Close Combat:
Steel Fists



Midrange:
Flame Thrower



Long Range:
Ice Spike



DEVELOPMENT HISTORY

article discussion edit history

Game Lab Concept Ideas

Contents [edit]

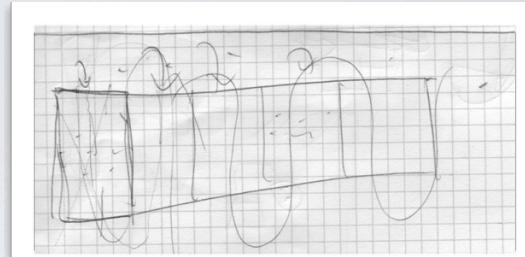
1 Concrete Ideas

- 1.1 Ico-Worms
 - 1.1.1 Alternative
- 1.2 Alley Cat remake
- 1.3 Fire vs Water
 - 1.3.1 Variante 1
 - 1.3.2 Variante 2
- 1.4 Super Mario Bros 3 Battle Mode
- 1.5 Multi Player Pac Man
- 1.6 Shoot 'Em Up Gegenendecker
- 1.7 Minigolf
- 1.8 Good vs Evil
- 1.9 Racing game
- 1.10 Graph-based small-scale RTS
 - 1.10.1 Key Idea
 - 1.10.2 Conceptual fake screenshot examples
 - 1.10.3 Notes

2 Various

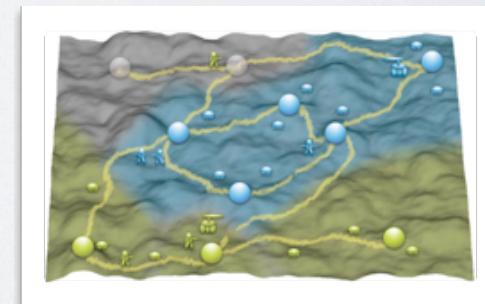
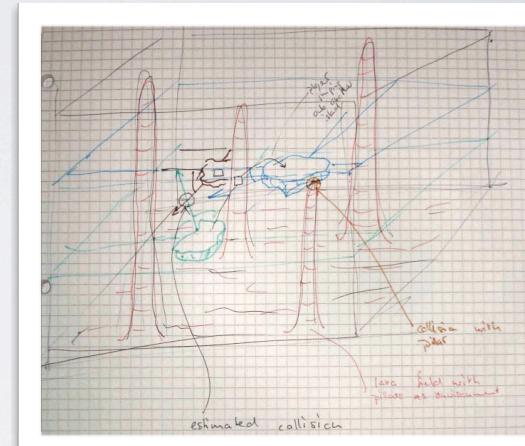
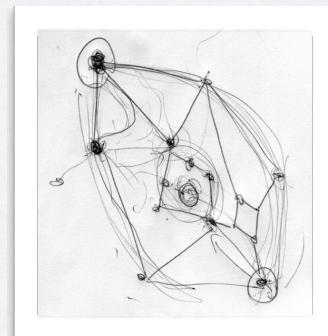
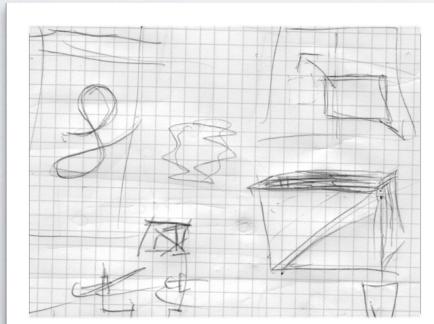
- 2.1 Diverses, Keywords of Jan 22 meeting
- 2.2 Feb 24 brainstorming
 - 2.2.1 round 1
 - 2.2.2 round 2
 - 2.2.3 result
 - 2.2.4 proposal janick

3 Fire & Ice



PHASE I

Brainstorming, Idea pitch (beginning of March)





PHASE 2

Gameplay Prototype (March 17)

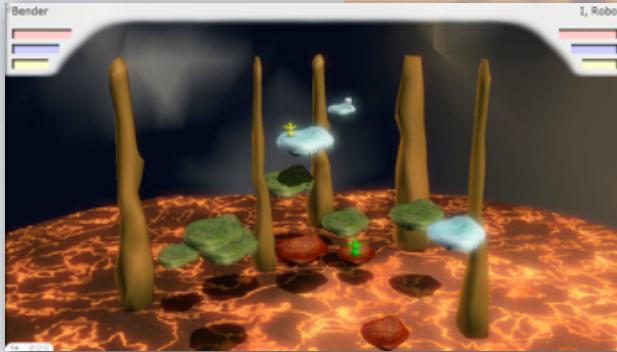
PHASE 2

Visual Prototype
Concept Art



PHASE 3

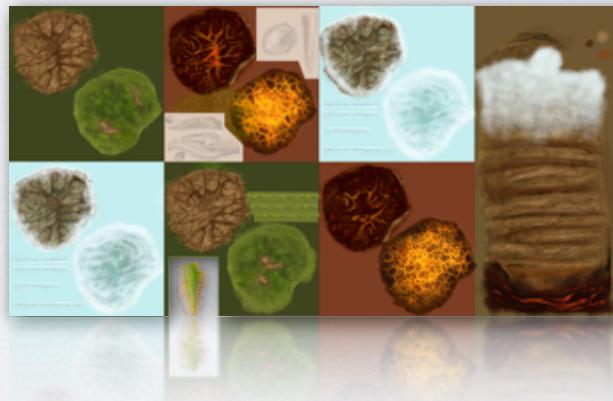
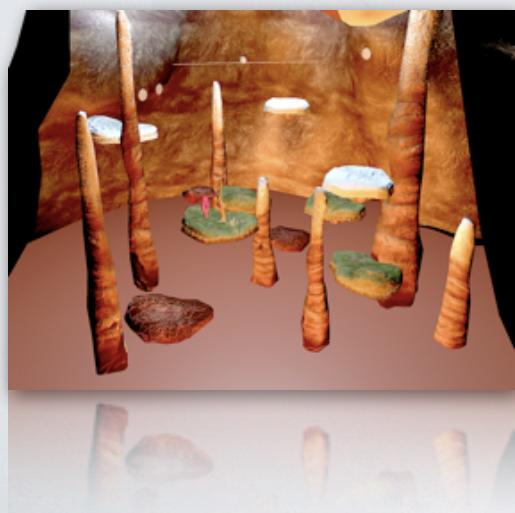
Gameplay development



PHASE 3

Visual Content Development

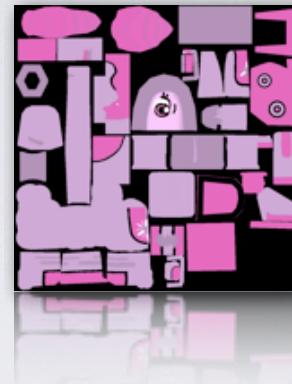
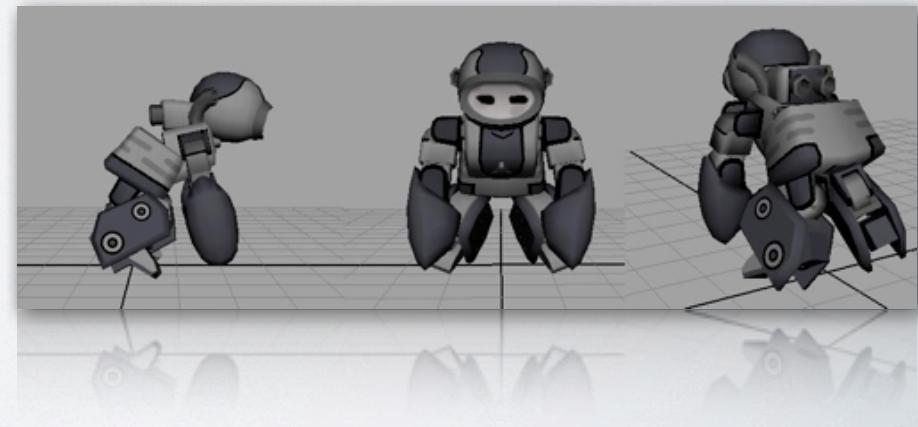
Environment models / textures:
Joya Clark, San Francisco, CA

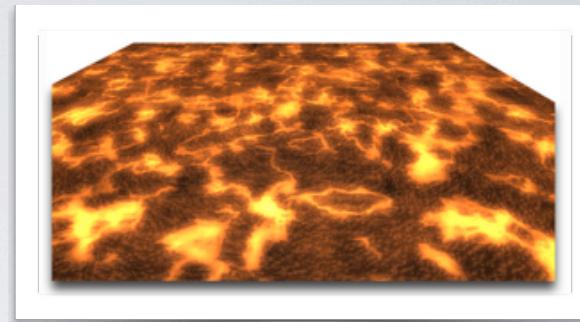
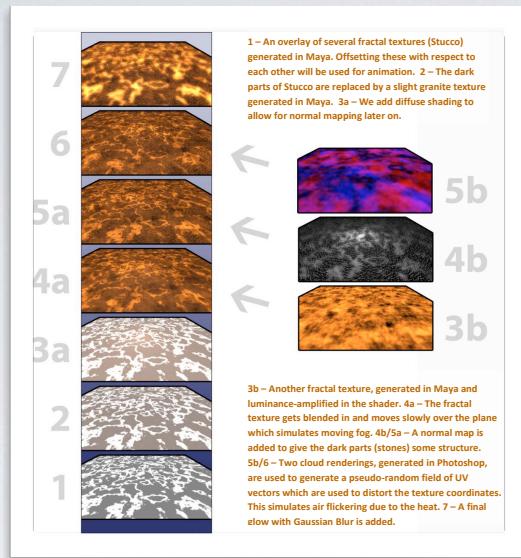
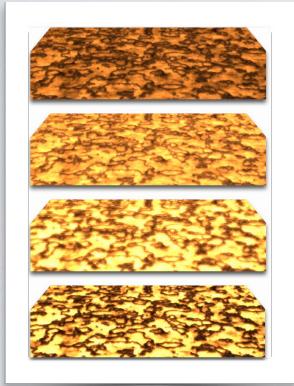


PHASE 3

Visual Content Development

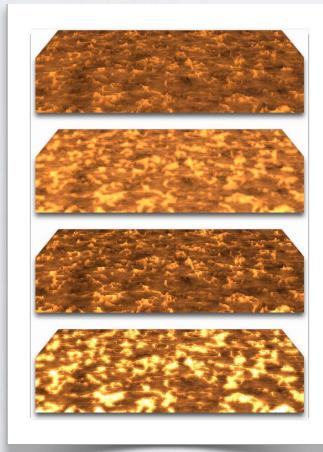
Player model / bone animations:
Austin Roderique, Springfield, MO





PHASE 3

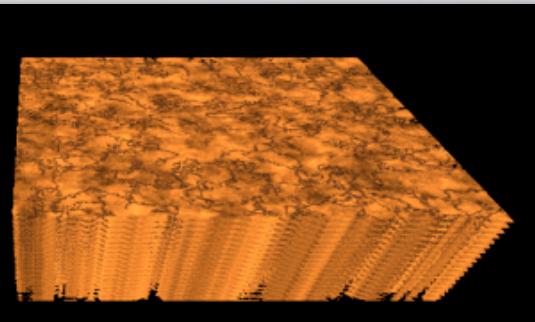
Visual Effects Development: Fractal-Based Lava

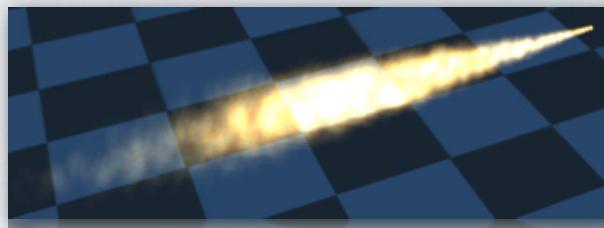
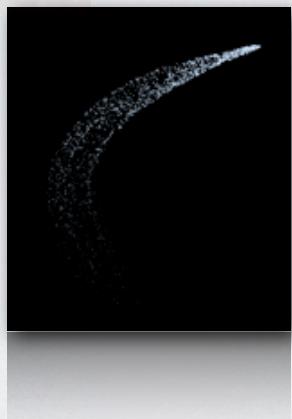
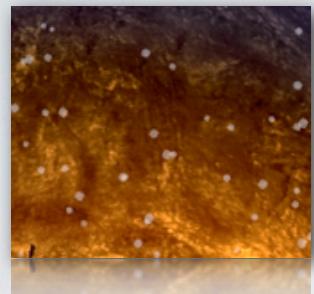


PRESS SPACE TO SHOW/HIDE MENU
 (press T) - Technique = MultiPlane
 (press G) - Glow = False
 (press Up/Down) - Glow factor = 0.8
 (press Q) - Shadows (only in ParallaxOcclusion mode) = false
 (press E) - Invert Height Map = true
 (press R) - AnimateStucco (only in FlatWavy mode) = true
 (press U) - EnhanceStuccoContrast (only in FlatWavy mode) = true
 (press I) - Alternate Colors = false
 (press Left/Right) - StuccoCompression = 0.35
 (press V,B) - Height Scale (only in ParallaxOcclusion mode) = -0.4524997
 (press N,M) - Flicker Strength = -0.019
 (press W,A,S,D,X,Z to navigate)
 (press C) - Camera = observer

fps: 139
 (X:0 Y:0 Width:895 Height:503 MinDepth:0 MaxDepth:1)
 (press H,J,K,L) - HDR - out2: 1 - out3: 2

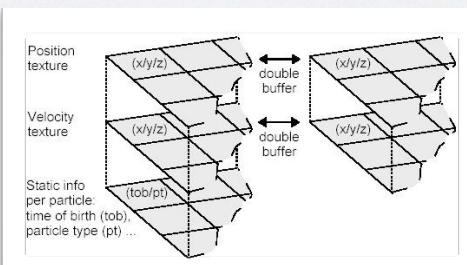
(press M to toggle FBO)
 (press A,B to toggle Ambient Light)
 (press S to toggle Shaders)
 (press C to toggle Camera)





PHASE 3

Visual Effects Development: GPU Particles



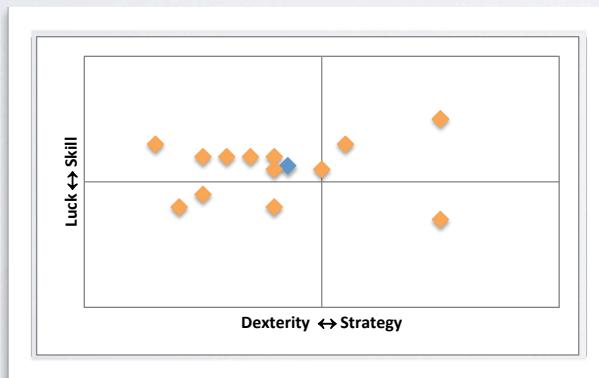
PHASE 4

Towards Alpha Stage:
Lighting, Compositing,
HDR Postprocessing



PHASE 4

Alpha Stage: Testing Session with 14 players



PHASE 4

Alpha Stage: Incorporating Feedback



Before:
*“chaotic, too many features,
unbalanced weapons”*



After:
More than 50% of features
removed, levels cleaned up.



PHASE 5

Finalizing





TEAM RESULTS

RESPONSIBILITIES

Game Designer

Gameplay Dev

Physics Dev

Graphics Dev

Graphics Content

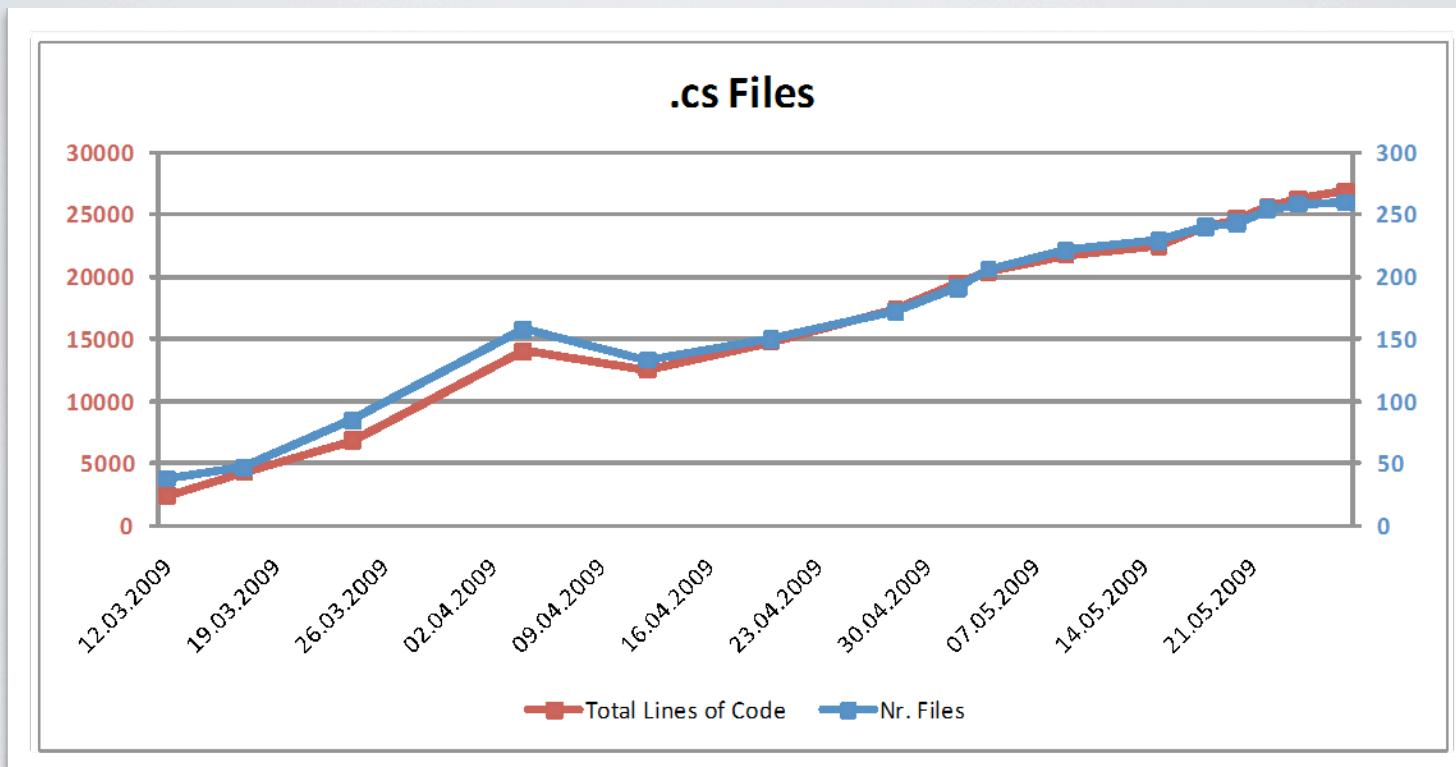
Art Director



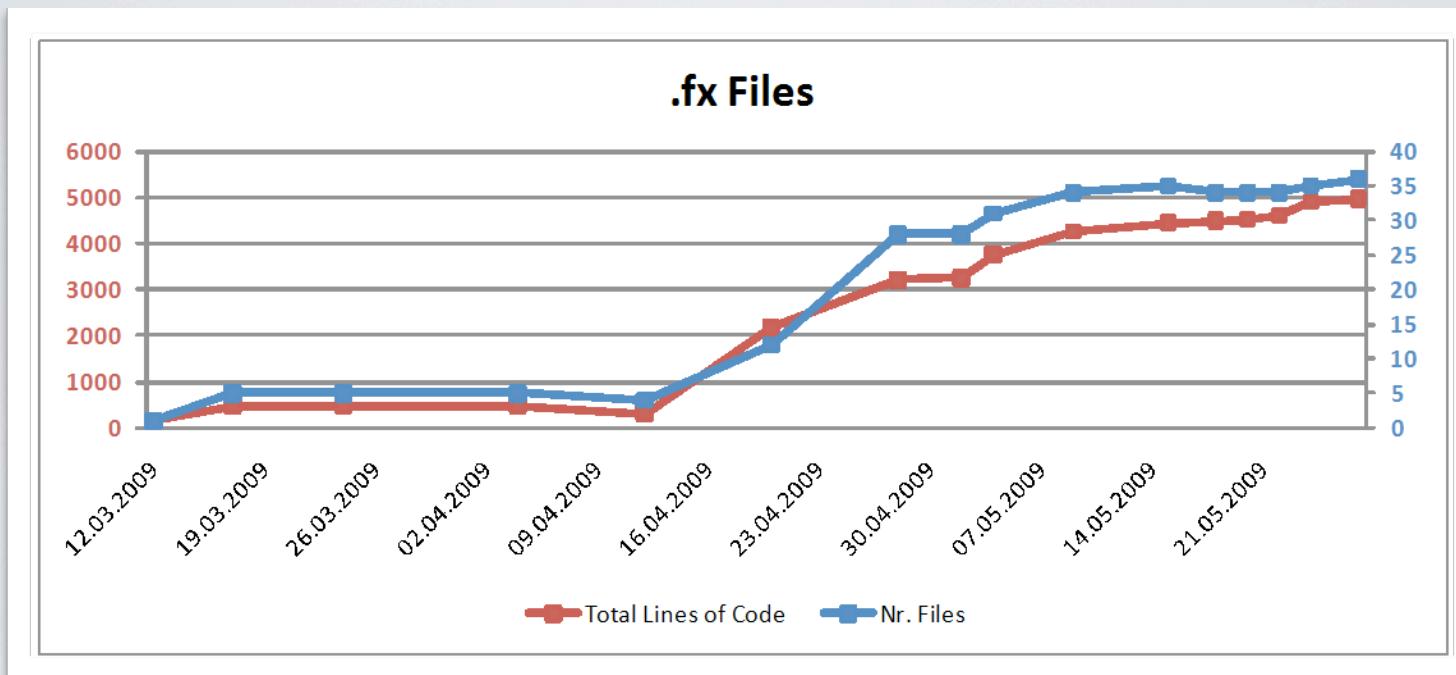
Software Framework and Architecture

Software Architect

PRODUCTIVITY



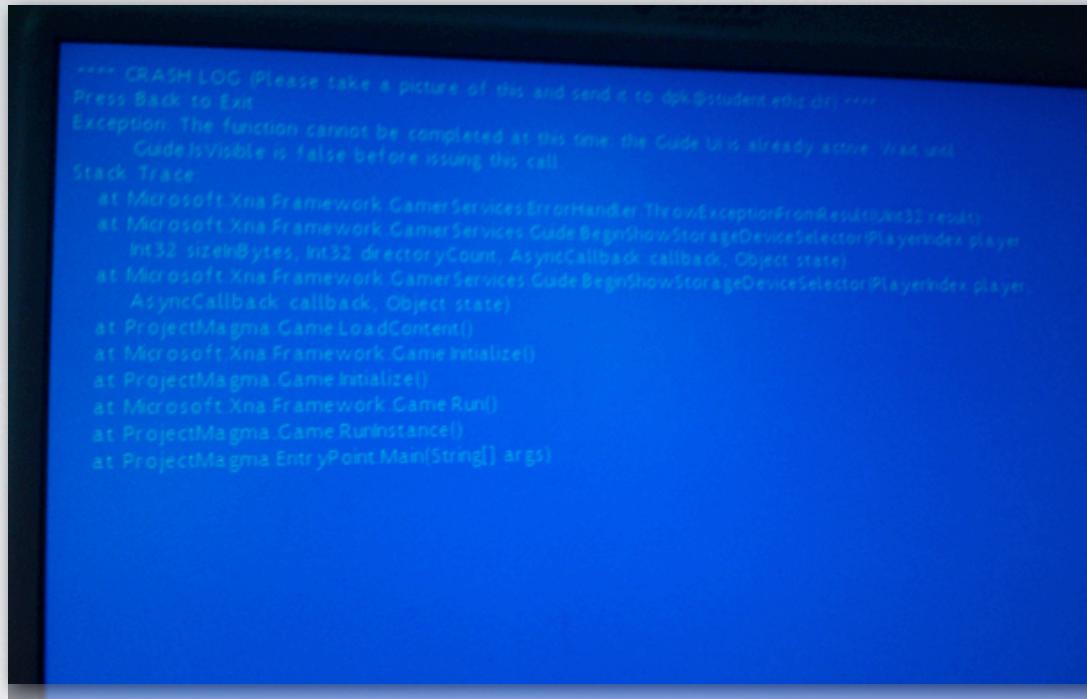
PRODUCTIVITY



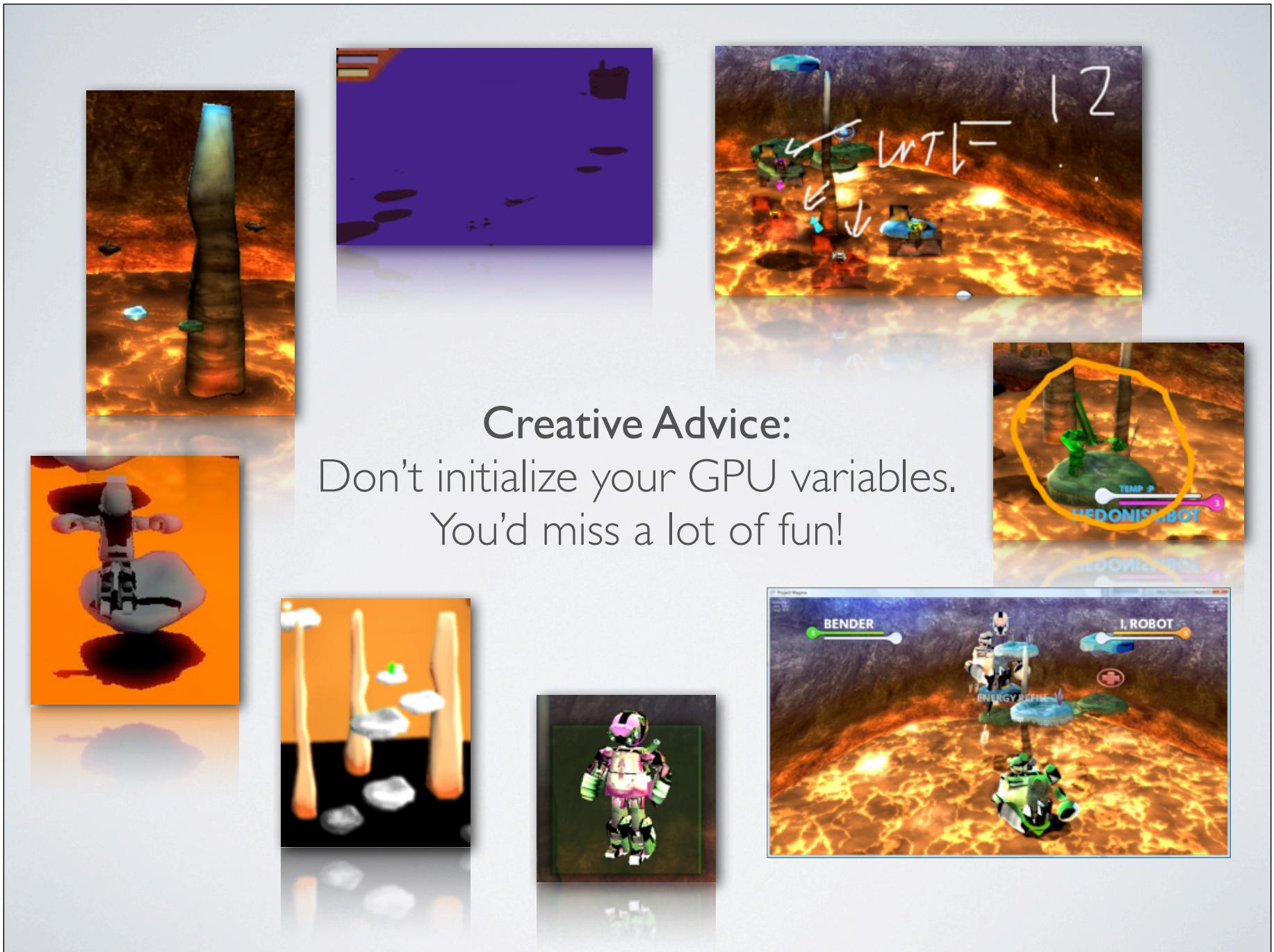


SPECIAL FEATURES

Two pieces of advice for future students



Technical Advice:
Get yourself a blue screen class!
You will be thankful later.





CONCLUSION

REVIEW OF GOALS

- **Gameplay Goal** - fast-pacing addictive death match game
- **Visual Goal** - contrast between fire and ice, cartoonish look
- **Structural Goal** - stability / performance on XBox, extensibility

THANKS

- **Joya and Austin** - working with artists is so much fun!
- **Testers** - both at the alpha events and in the VIS office
- **Game lab alumni** for inside tricks and assessment
- **Course assistants** for technical assistance at irregular times
- **The nice unknown guy** who will improve the ventilation in the IFW C3I lab at some day in the future...



DEMO – Q&A