iPhone Post-mortem

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THIS Presentation

Some background
> IGS, Activision and Treyarch
> Call of Duty: World at War: Zombies

Challenges
> Platform - Market - Product

Development
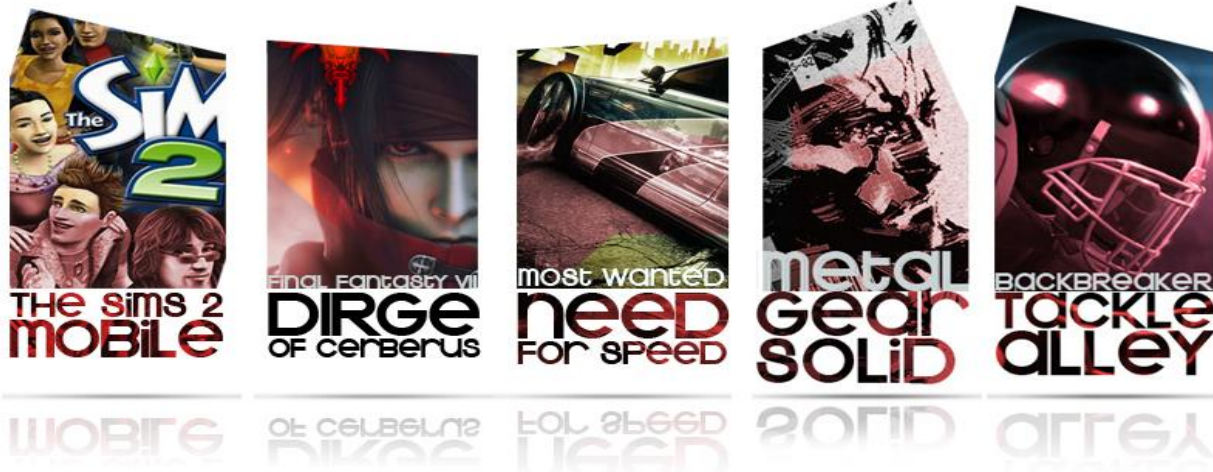> Controls - Authenticity - Multiplayer

Some lessons

Did we succeed?

Ideaworks Game Studio

* **Ideaworks3D founded 1998**
* **Cross-platform mobile games technology**
* **Ideaworks Game Studio set up 2004**

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- **Started developing for iPhone in 2008**
- **5 App Store releases in 2009**

- **IGS build games on Airplay SDK (from Ideaworks Labs)**
    - C++ Windows/Mac/Linux dev environment
    - Optimised for console-quality content
    - 1-click deployment to iPhone, Android, smartphone, handheld

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COD: WAW: ZOMBIES

- **Not in original spec**
- **"lunchtime" project**
- **Frantic, arcade fun**
- **An instant hit**
- **Extended in DLC**

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zombies on iphone

- **First talks March 2009**
- **App Store <1 year old**
- **A new market**
- **Light, casual games**
- **Where does CoD fit?**

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CHALLENGes

Platform

Market

Design

- **iPhone is:**

    ARM 11 (or Cortex)

    128 mb (or 256)
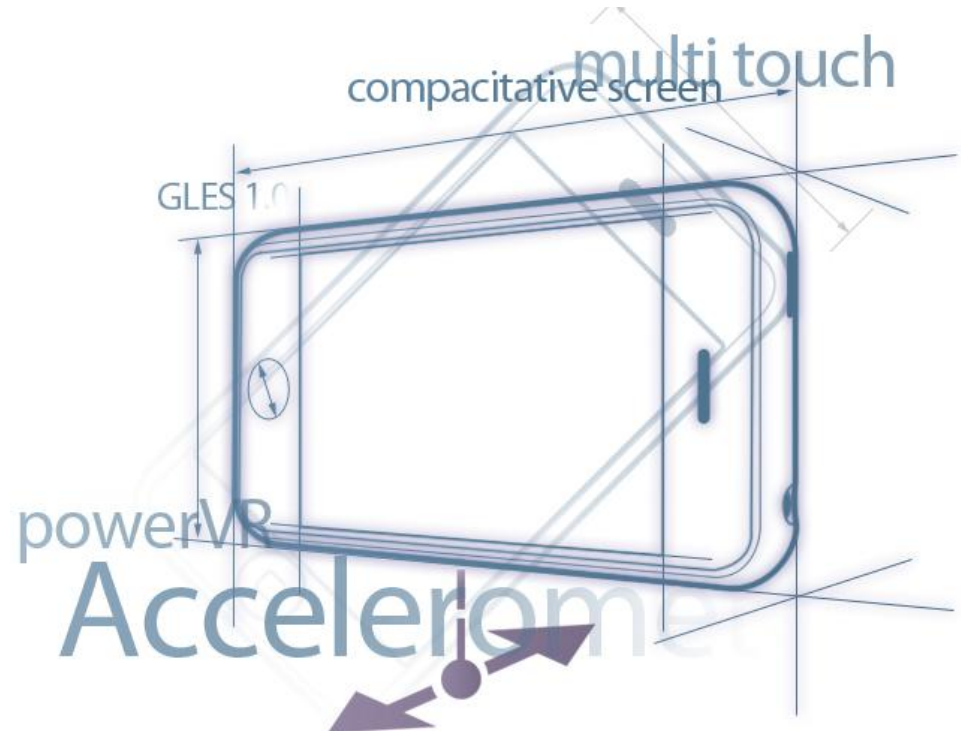
    PowerVR MBX Lite (or SGX)

    GLES 1.0 (or 2.0)

    Capacitative multi-touch

    Accelerometer

- **iPhone is not:**

    - (just) a games device
    - (just) a phone

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- **Who are we selling to?**

- **Look at what's popular:**
  - Lightweight, 'instant' games
  - Social networking apps
  - What about premium brands?

- **COD: Z not a casual game**
  - Violence, gore, the occult!
  - Nazi references
  - Age rating?
  - 17+ …get over it.

Design Goals

- **High-value, non-casual**
- **What makes you re-launch the game?**

- **Define the Zombies experience**
  - Always about to be overwhelmed
  - Co-operate, move as a team
  - Strategy
  - Learn, and survive longer

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THE PROTOTYPE

- **Focus on key areas**
  - Visual quality
  - Performance
  - Controls

- **Benchmark numbers:**
  - 20 Zombies
  - 20 frames per second
  - 2000 triangles
  - 2 thumbs

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Development

Controls   **Authenticity**   **Multiplayer**

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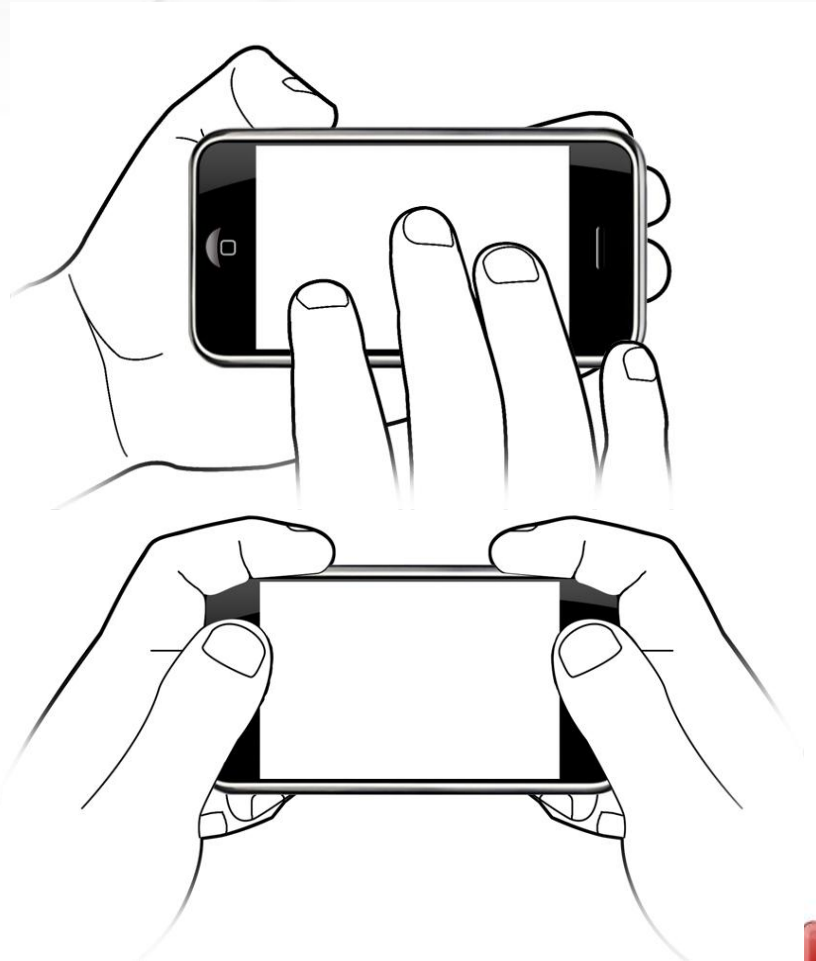## FPS Controls:

- Run, Look, Shoot

Console controller:

- 2 Sticks + 2 Triggers
- = 4 inputs: R+ L+ S+ 1

iPhone:

- 1 hand OR 2 thumbs
- = 2 inputs at most

controls

Automated movement?

- Move between pre-set Nodes
- Touch Nav icon to initiate
- Left thumb aims
- Right thumb shoots

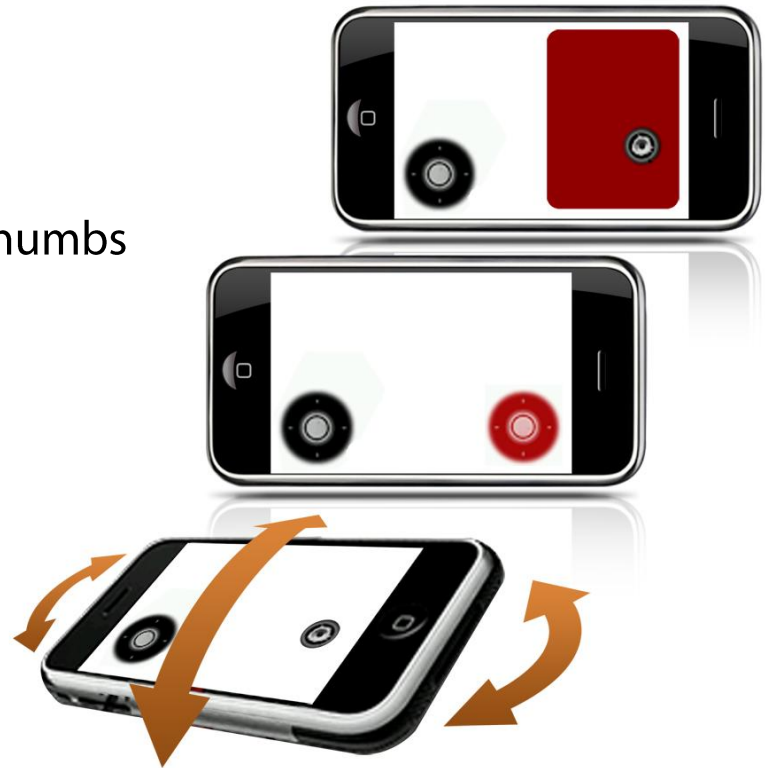## Retains strategy

A very different game

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controls

Compromise

- Some loss of freedom is OK
- "Double up" functions to fit 2 thumbs
- Run/Look/Shoot: close enough

Choice

- One size does not fit all
- 3 options: something for (almost) everyone

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controls

- **No-one likes compromise!**

- **Accelerometer: a better solution?**
    - 3 Dimensional analogue input, parallel to touch
    - Already had it working in another game
    - But it didn't work at all! (for movement)

- **Steering motion is the only way**
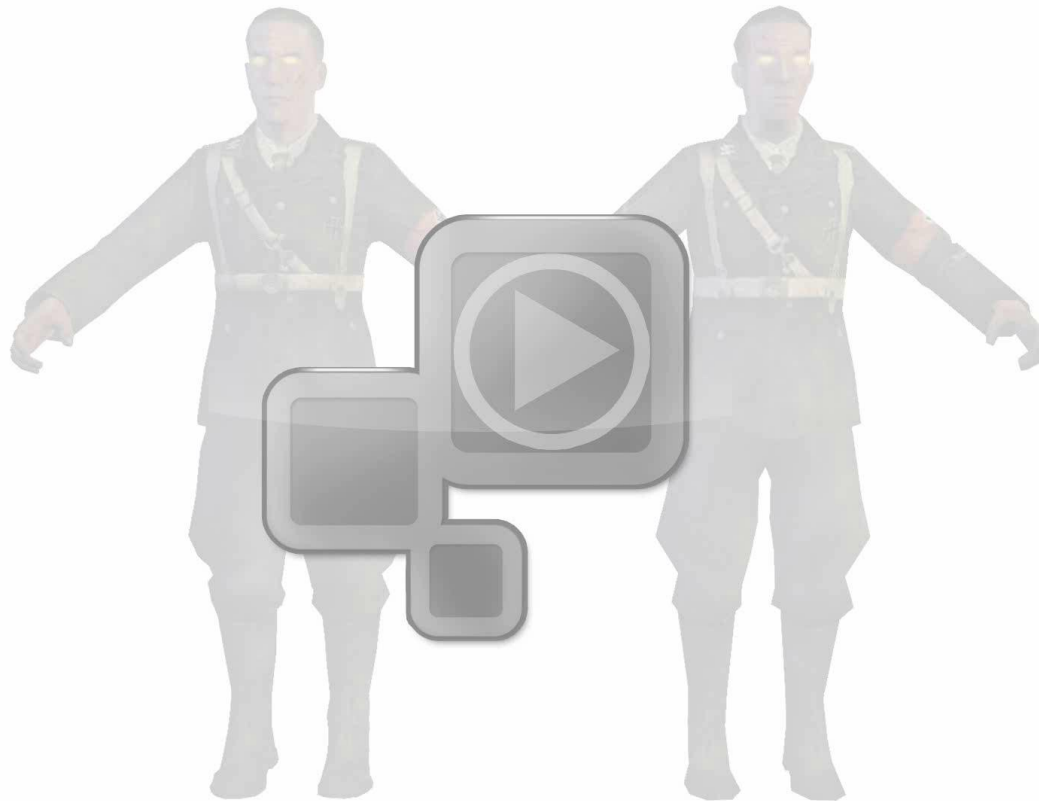   - Learning curve but some fans love it
    - A good USP

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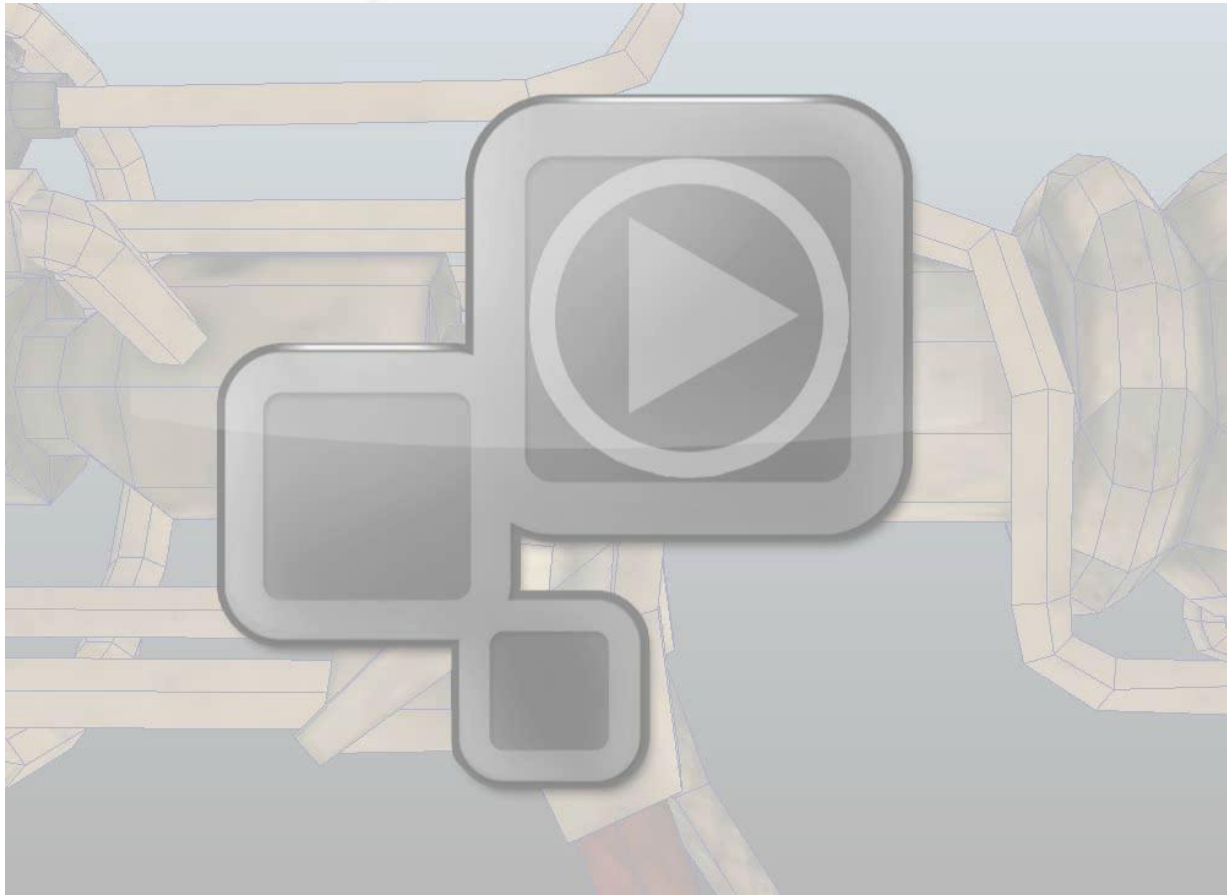gamestudio

authenticity

Preserving quality on a smaller device

- Detail only where needed
- Simplify expensive things
- But only change what you need to
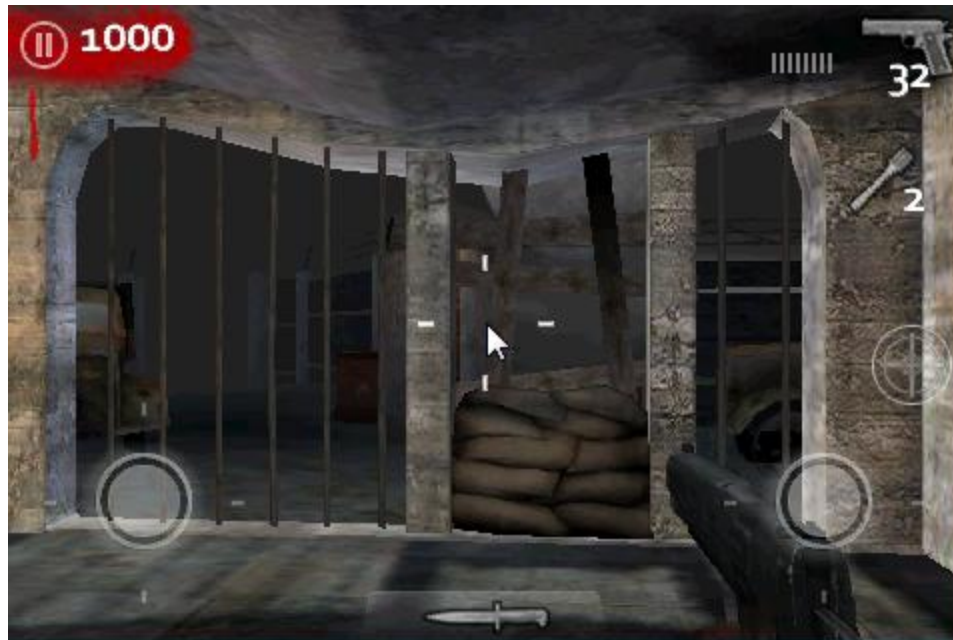- Applies to tech as well as assets

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Detail

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more detail

WHat YOU DOn't see

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Keep It Simple

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MULTiPLAYER

- **Co-operation: essential to the game**
- **A big challenge! How high to aim?**
  - But 2 or 4 player? LAN or online?

- **Prototype dev could not answer**
  - Reliability is key
  - Supporting diverse routers (domestic vs ISP)
  - 'Real world' latency, bandwidth, STUN, UPnP…
  - These questions take time to answer

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MULTiPLAYeR

- ## Tiered goals:
    - T1: LAN / WiFi (zeroconf), 2 players
    - T2: 4 players peer-to-peer
    - T3: Online (player ID, matchmaking, STUN)

- ## Time would tell which tier we could achieve
    - Integrating Activision's online backend helped
    - In the end, we hit maximum spec…
   - …plus bluetooth, host migration

CROUCHING THUMBSTICK, HIDDEN OPTION

* **Presentation matters!**

* **Default option looked similar to other games**
    * But it worked differently
    * Users thought it was broken
    * Dual-Stick: a safer default?

* **Choice irrelevant if users not aware of it**
    * Force the choice to avoid this

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● **Ideaworks expect to set the bar high**

  ● But high standard has to be maintained
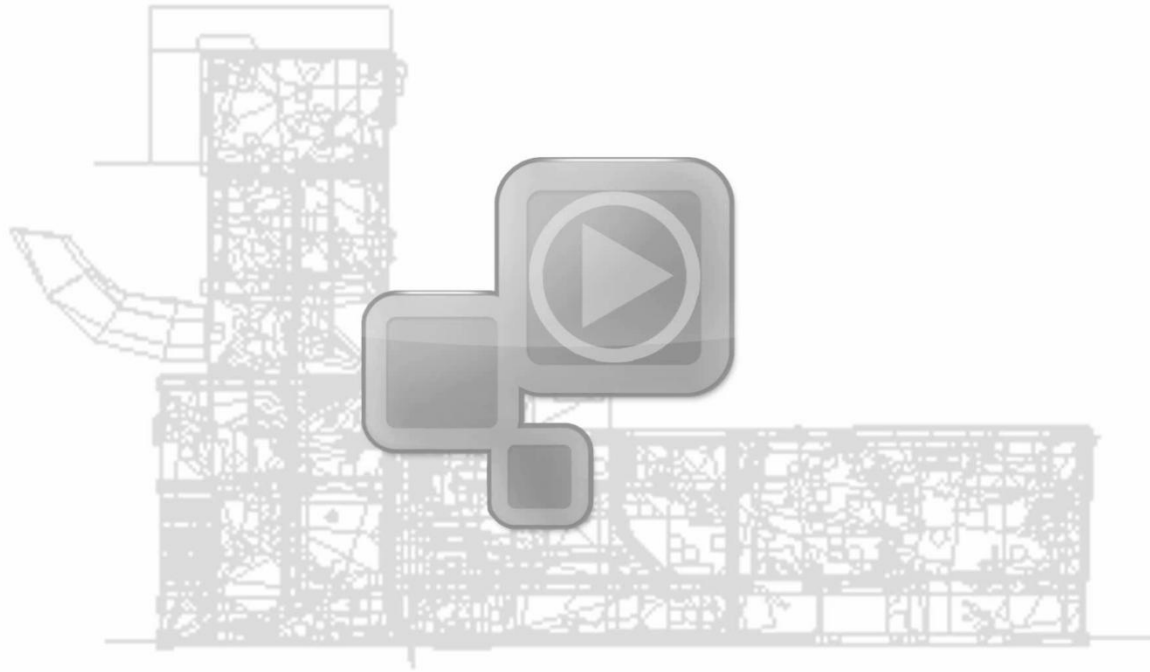
PErFORMANCE

Verrückt: a real test

- Highly interconnected
- >20 rooms (Nacht has 4)
- Had to scale workflow as well as engine

1st gen devices suffered

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piracy

- ## Received wisdom
  - App piracy doesn't represent real losses
  - Initial pirate activity declines rapidly

- ## But… evidence of conversions
  - People would buy the game to fix imaginary 'crack protection'

- ## Installing cracked apps is very easy
  - For many would-be customers, this is just too tempting

success?

Commercial:

- #1 grossing (US store) 6 out of first 8 weeks
- Remained in top 5 since release (almost 4 months)
- Multiple-million downloads of Lite Edition

Critical:

- 4.5 star average (US store, 15k ratings)
- One of Snoop Dogg's favourite apps!
- What do the fans think…?

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success?

"The best fun I've had to date on my iPod Touch! "

"OMG!!!! It's amazing sooooo amazing"

"This is Pretty. Un. Believable."

"I need to keep a constant power source with me, I play it that much lol"

"It's like magic in my hand"

"I wish I could get this. I only have 2.97 in my account! ☹"

"The best handheld game I've played. Period."

"The tilt controls on this game are perfect"

"HOLY **** ON A DRAGON!!!! I want to leave work now!"

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