Reorienting Development and Accelerating Production to Create *Infinity Blade* and *Infinity Blade II*

Simon Hurley
Sr. Producer, ChAIR Entertainment
Who is ChAIR?

2007 XBLA GOTY

2009 XBLA GOTY

2010 iOS GOTY

2011 iOS GOTY
Who is ChAIR?
Who am I?

2010-2012
ChAIR Entertainment / Epic Games
Sr. Producer / Writer

2003-2010
Gearbox Software
Sr. Producer / Writer
What We’ll Discuss

- How ChAIR changed our development process for mobile games
- How we altered production to fit a compressed timeline for our first mobile product
- What we learned from developing *Infinity Blade* and how we applied it to *Infinity Blade II*
- What you need to know to do it too!
The Challenge

Parameters for “Project Sword” (June 2010):

- Immediate focus shift to new platform / market
  Create the first UE3-powered iOS game
- Game must showcase visual fidelity possible on iOS devices
  “Gorgeous visuals”
- Game must demonstrate great gameplay on iOS devices
  “Super-fun”
- Meets Epic/Chair quality standards for shipping game
  Not a tech demo
- Ship it before the end of the year
The Situation

- No one on team had made a mobile title before
- Mobile engine not yet complete
- New outsourcing partners & immature pipeline
- Development partner heavily occupied
- New producer started two weeks before

Epic Citadel UE3 demo for iOS (8/2010)
Hmmm...
iOS Advantages

- Huge, growing install base
- Well-established distribution channel
- In-app purchases
- 3D games just emerging
- Apple’s interest
- Dev hardware
- Certification speed
Reorienting to Mobile

What we had to learn
- The iOS / mobile market
- The competition
- The customer
- The technical limitations

What we had to maintain
- Design sensibilities
- Quality standards
- Commitment
Reorienting to Mobile

What we had to improve

- Schedule predictability
- Rapid decision-making
- Outsourcing/external pipeline
- Communication

What we had to jettison

- Perfectionism
- Rigid adherence to global milestones
- Hesitation and doubt 😊
Playing to our Strengths

- ChAIR’s dev team (2010)
  - 3 Programmers (1 UI expert)
  - 4 Artists (1 VFX)
  - 2 Animators (& in-house mocap)
  - 1 Designer/Director
  - 1 Producer/Writer
  - 1 QA
  - 1 PR Specialist (contract)
- Epic resources
- Outsourcing resources
What We Determined

Game must be made specifically for device
  - Not a port / knock-off
  - Touch interface was key (single finger)

Game must be tailored to mobile audience
  - Not hardcore gamers
  - Intuitive and instantly fun
  - Short, meaningful gameplay (<2 mins)
  - Unique, high quality visuals
  - Not reliant on audio
  - Engaging but minimal story

Game must continue to draw players back
Accelerating Production

Implemented hybrid production style due to rapid dev cycle and small team

- Waterfall content production
- Iterative design & programming production
- Scrum-style communication

Scoped out entire project very early

- Task estimates based on vertical slice
- Time-boxed all features and content
- Forced team to think holistically

Simplified schedules & tracking
Design Methodology

Maintained (but shortcut) ChAIR’s tried-and-true design process

- Adapted an existing ChAIR design
- Team involved & invested from day 1

Modular features/content

- Proved core gameplay first
- Scalable features, pruneable content

Scoped for the device

- Maximum replayability with minimum assets
- Designed for mobile customer and iOS interface
Rapid Prototyping & Iteration

- UE3 experience helped us get core gameplay up & running on device within 3 weeks
- Art style locked down in 4 weeks
- Frequent internal playtesting
- Super rapid iteration turnaround
- Vertical slice in 6 weeks
Speeding up the Process

- Solved technical hurdles early
- “Pushed forward” (or cut) peripheral features early, to focus on core gameplay
- Ramped-up outsourcing immediately
- Smoothed & simplified pipeline
- Empowered leads to make key decisions (what’s not working?)
- Kept everyone in the loop
Communication & Feedback

Established trust early

- Identified key stakeholders
- Regular & frequent lead feedback
- Aggressively removed roadblocks
- Facilitated direct relationships

Towards the end

- Weekly “swarm” sessions
- Weekly department meet-ups
- Weekly PR/Marketing meetings
QA Tracking

Approaching Ship:
- Daily bug trending
- Daily mem/perf
- 3x daily bug triages
- Aggressive puntng
- Nightly updates to everyone
Memory Testing (Daily)

Different Device, Same iOS
Blue = baseline (Epic Citadel)
Red = pre-optimized build
Green = ship build
Memory Testing (Daily)

Same Device, Different iOS
Blue = baseline (Epic Citadel)
Red = pre-optimized build
Green = ship build
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**Test Matrix**
• 20+ Game of the Year awards
• Reached #1 on iTunes App charts within 12 hours
• Fastest-grossing App in iTunes history
• 2011 Apple Design Award
• $10 million net revenue in first 6 months
IBI: Lessons Learned

- Infinity Blade took a year to create, but was released 5 months in.
- Design mobile games for mobile customers.
- In-app purchases must be part of initial design.
- Title updates are critical to long-tail success.
- Meta-game is what keeps players coming back.
- Traditional production practices still apply.
- Leverage outsourcing – but have a ‘plan B’.
- Mobile multiplayer is very different.
- Top App lists are critical to sales.
- Use customer feedback to refine gameplay.
Infinity Blade II

Parameters for IB2 (June 2011):

- Demonstrate new iOS hardware capabilities
- Bigger and longer than IB1
- More variation, less repetition
- Deeper story
- More robust social component
IB Analytics

Infinity Blade 1 Installs

Infinity Blade 2 Installs

Game Installs per iOS Device Type
IB Analytics

Distribution of in-game items earned (Bloodlines 1-5)

Top 10 weapons players are using (Bloodlines 10-25)

Encounter Win vs. Loss Ratio (by specific item)

Dual Swords - Percent difference between wins and losses vs. all Titans

Helps us to improve the customer experience – examples include:

- Which items are most often used at various points in the game? Least often?
- What types of items do new players prefer? Seasoned players?
- Are weapons vs. enemy difficulty balanced throughout the game? NewGame+?
Multiple perfect scores (including IGN)
Reached #1 on iTunes App charts within 8 hours
Over a week as iTunes #1 App
Multiple Game of the Year awards
AIAS Mobile Game of the Year
IMGA Excellence in Gameplay & Grand Prix Awards
Infinity Blade franchise grossed over $30 million in just over a year
Infinity Blade II – Creating a Sequel

Focus shifted from “how do we do it?” to “how can we do it better?” (both game design and production processes)

- Content pipeline & estimates were known quantities
- Production focus shifted to feature/design process improvements (more improvement over less time)
- Technology & tools were familiar, issues had largely been worked out
- Problem areas from IB1 & new IB2 features were front-loaded when possible (based on IB1 postmortem results)
- Content built to IB1 shipping specs (reduced optimization)
- Outsourcing front-loaded, given smaller margins for slippage
IB2: Lessons Learned

- Updates vs. sequel – diminishing returns
- Objective milestone acid test
- Analytics are vital to understanding & refining customer experience
- The difference between beta vs. final tech
- The vocal minority
- Customer hardware distribution
- Continued product support
You can do it too!

Remember to:

- Take advantage of a small, agile team
- Design for the both the device and the customer
- Use familiar technology 😊
- Create content & features in a modular fashion
- Structure your content for multiple devices
- Find the fun and the look early
- Cut early, and cut deep
- Understand meta-game - what it’s really about
- Playtest, playtest, playtest
- Use updates & analytics to improve the game post-launch
You can do it too!

What to Avoid:

- Assuming your personal mobile experience is typical for an average customer
- Trying to build/port a console game for mobile
- Perfectionism – focus on what’s most critical/visible
- Over-adherence to “traditional” design methods
- Overlooking tried-and-true production practices
- Over-compartmentalizing team members
- Putting outsourcing on critical path without a plan B
- Not treating your game as a AAA product
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