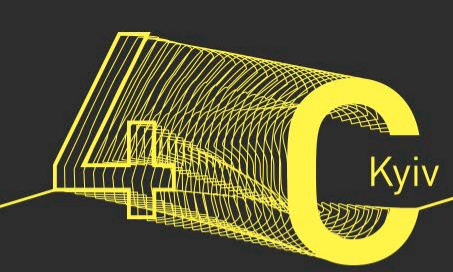
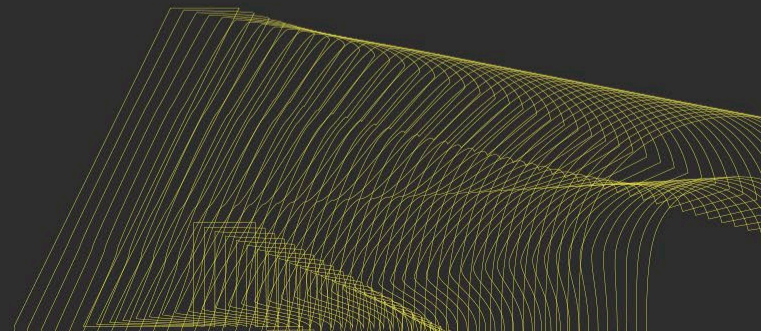


ANATOMY OF A MODERN GAME DESIGN DOCUMENT

VERA FRISCH & RALF C. ADAM

FULL SPECTRUM PRODUCERS



RALF C. ADAM

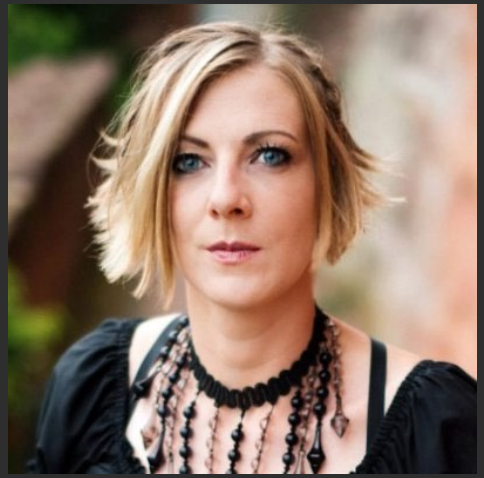
- Freelancer Producer & Consultant
- Tiger Team Productions
- >25 years in the Games Industry
- All-Time Favourites: Jagged Alliance 2, HoMM 3, Civilization 2, Diablo 2, Pirates!
- Beyond Games: Soccer, Karaoke, Golf

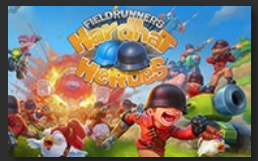




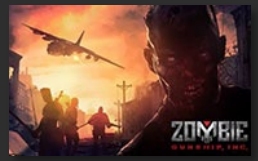
VERA FRISCH

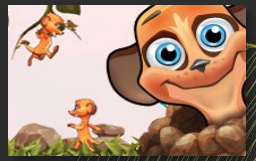
- Freelancer Producer & Consultant
- Gamecorps
- >8 years in the Games Industry
- All-Time Favourites: World of WarCraft, Larry, Spellforce, HoMM 3, NfS: Underground
- Beyond Games: Cars, Photography

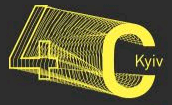




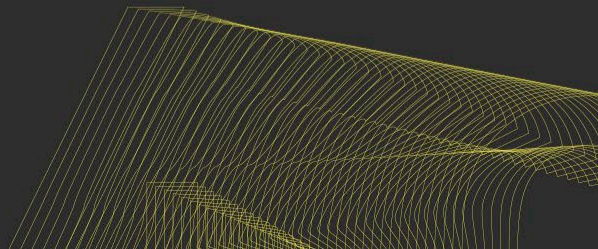






INTRODUCTION



INTRODUCTION

What this speech is about…

- Different Game Design Types & Structures
- Game Design meets Agile Development
- Writing GDD‘s
- Best Practice

INTRODUCTION

What this speech is not about…

- Design Methods (Brainstorming, etc.)
- Project Planning
- Team Management
- Game Designer Skills
- Story Telling

(WHY) DO WE STILL NEED GAME DESIGN DOCUMENTS?

SOUNDS FAMILIAR?

„No one reads Design Docs anyway!“

„Design Docs are too much of a ballast slowing us down!“

„But we‘re doing ‚agile‘ now!“

„There are no GDD‘s in SCRUM!“

„Design Docs are outdated the minute you write them!“

„We cannot commit that early in production to specific features!“

„We have a more iterative approach!“

THE CAKE IS A LIE…

„No one reads Design Docs anyway!“

„Design Docs are too much of a ballast, slowing us down!“

„But we‘re doing ‚agile‘ now!“

„There is no GDD‘s in SCRUM!“

„Design Docs are outdated the minute you write them!“

„We cannot commit early in production to specific features!“

„We have a more iterative approach!“

LAME EXCUSES

LET'S TAKE A CLOSER LOOK

„No one reads Design Docs anyway“

- This is not the fault of documentation per se…
- …but rather a signal that YOUR documentation is poor
- Could be a sign of: long prose text, bad formatting, wrong tools, not keeping the docs alive & up-to-date, insignificant information, relevant information hard to find, written for wrong audience etc.

LET'S TAKE A CLOSER LOOK

„We cannot commit that early to features“

- If you do not know your feature set by the end of the pre-production – when do you expect to know it?
- True: No design survives 1st contact with reality…
- …so, therefore: design for change (instead of not designing at all)
- Also: this argument will hardly work out when collaborating with a Publisher

LET'S TAKE A CLOSER LOOK

„But we‘re doing ‚agile‘ now!“

- *„BACKLOG: A backlog is a list of features or technical tasks which the team maintains and which, at a given moment, are known to be necessary and sufficient to complete a project or a release.” https://www.agilealliance.org/glossary/backlog/*
- Different name – same meaning
- In a nutshell: the perfect description of a Game Design Document
- We get back to this later again…

WHO DO YOU WRITE FOR?

Horizontally (Internal)

- Programmers
- Co-Designers & Level-Designers
- Artists (Graphic & Audio)
- QA-Team

WHO DO YOU WRITE FOR?

Vertically (External)

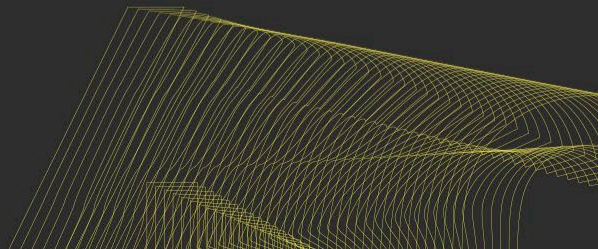
- Publisher (Producer, Marketing, Sales etc.)
- Outsourcing Houses (Art, Audio etc.)
- External QA-Team
- Sometimes even Media (through PR/Marketing)

GOOD REASONS TO HAVE A GAME DESIGN

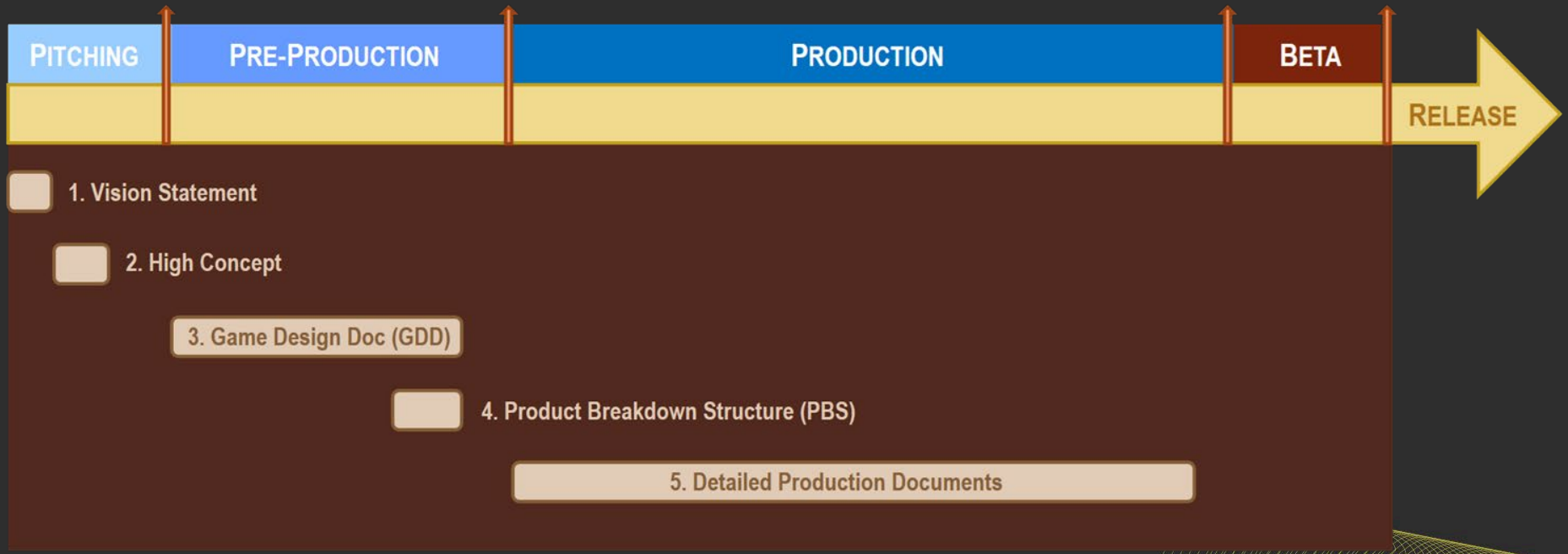
Ultimate Goals

- Having a shared vision (both internally and with Publisher)
- Helps keeping focus (again: internally & externally)
- Foundation for: estimation, priorities and dependencies
- Foundation for: QA, test plans, „Definition of Done“
- Usually: amendment to contract
- Therefore, also foundation for: change requests

DIFFERENT STAGES OF DOCUMENTATION



THE DIFFERENT STAGES



1. VISION STATEMENT

1. VISION STATEMENT

Goal of a Vision Statement

- Create a common vision within development team
- Foundation for all further documents
- Checking device for all future design ideas
- Always stays „first page“ of GDD
- Preserves the core essential idea of the game

1. VISION STATEMENT

Anatomy of a Vision Statement

- 1 – 2 Pages max.
- Starting with the X (EA term for „Experience“)
- Example: „Project Gotham: it‘s not about how fast you can drive, it‘s about driving fast“
- Summary of core gameplay
- Primary and secondary gameplay elements

1. VISION STATEMENT

When is a Vision Statement created?

- Start of Pitching Phase

Target Audience

- Complete Dev-Team

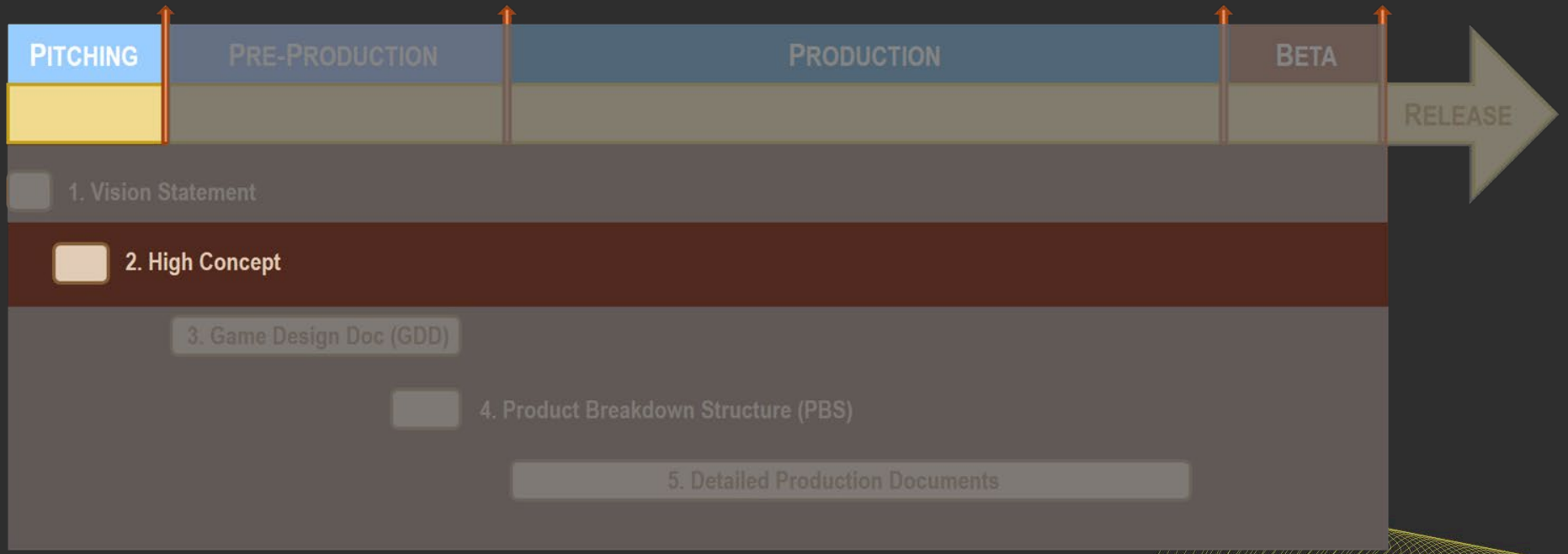
1. VISION STATEMENT

Example

- *„A history themed real-time strategy game for the pc that presents the rise of the first great civilizations on Earth by combining RTS game play from Warcraft 2 with the historical and economic features of Civilization”*

Age of Empires/Ensemble Studios

2. HIGH CONCEPT



Goal of a High Concept

- Also known as: Design Draft, Pitch Bible, Concept Paper
- Sales tool
- Pitching your idea to interested Publishers
- Setting goals for feature set, scope & USP‘s
- Defining target audience, genre, tech etc.
- Ideally in combination with 1st prototype

2. HIGH CONCEPT

Anatomy of a High Concept

- 10 – 20 Pages max.
- Product Vision, incl. Key features & USP‘s
- Core Gameplay, incl. examples early-, mid-, end-game
- Mock-Up visuals, prototype, competitors
- Target audience, genre, market intelligence, monetization
- Dev-Team description

2. HIGH CONCEPT

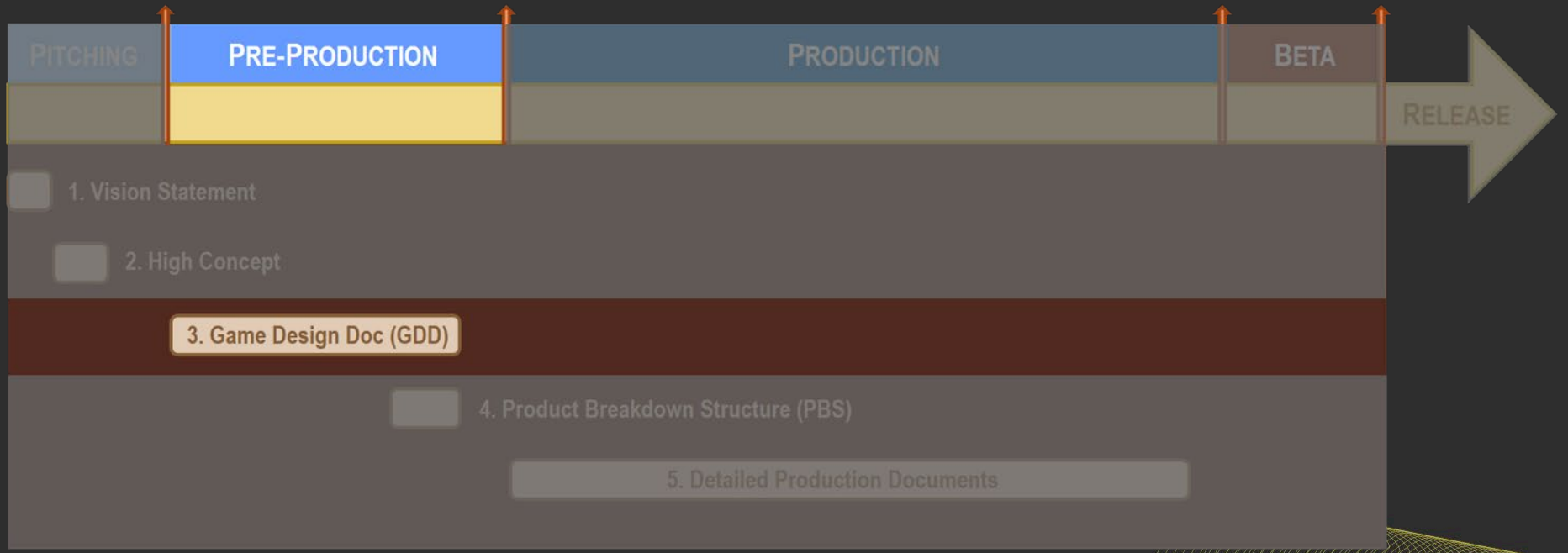
When is a High Concept created?

- In Pitching Phase after Vision Statement, before reaching out to Publishers

Target Audience

- Publisher (Business Dev/Producer)
- Complete Dev-Team

3. GAME DESIGN DOCUMENT (GDD)



Goal of a GDD

- To describe all main features, scope and quality in such a way that all team members can identify and label the extent/complexity of the relevant tasks and/or user stories
- Completed to a point that all key features and gameplay loops are defined and prioritized
- Size depends on scope of game, team size etc.
- As big as needed – but not bigger (scale it to team size)
- Keep it simple & clear

3. GAME DESIGN DOCUMENT (GDD)

Anatomy of a GDD

- All relevant game's Features and Gameplay Loops
- Definition Scope & Quality
- Art Style Guide
- Level/World- & Story Guide
- Menu-Flow, UI/UX, Click-Dummies etc.
- Monetization Strategy and Player Gating (F2P)
- Usually not included: final formulas, balancing, fine-tooth detail

3. GAME DESIGN DOCUMENT (GDD)

When is a GDD created?

- During Pre-Production (foundation for project plan, time estimations & budget)

Target Audience

- Complete Dev-Team: for time estimation, asset list creation, risk evaluation etc.
- Publisher (Producer, all main stakeholders)

4. PRODUCT BREAKDOWN STRUCTURE (PBS)

4. PRODUCT BREAKDOWN STRUCTURE (PBS)

Goal of a PBS

- Overview-Map of all features and assets
- When working ‚agile‘: Summary of all Epics
- Foundation for further planning & estimations
- Helps prioritizing

4. PRODUCT BREAKDOWN STRUCTURE (PBS)

Anatomy of a PBS

- Usually MindMap
- Features
- Assets
- Technology
- No tasks, no detailed descriptions
- No ressource allocation or dependencies

4. PRODUCT BREAKDOWN STRUCTURE (PBS)

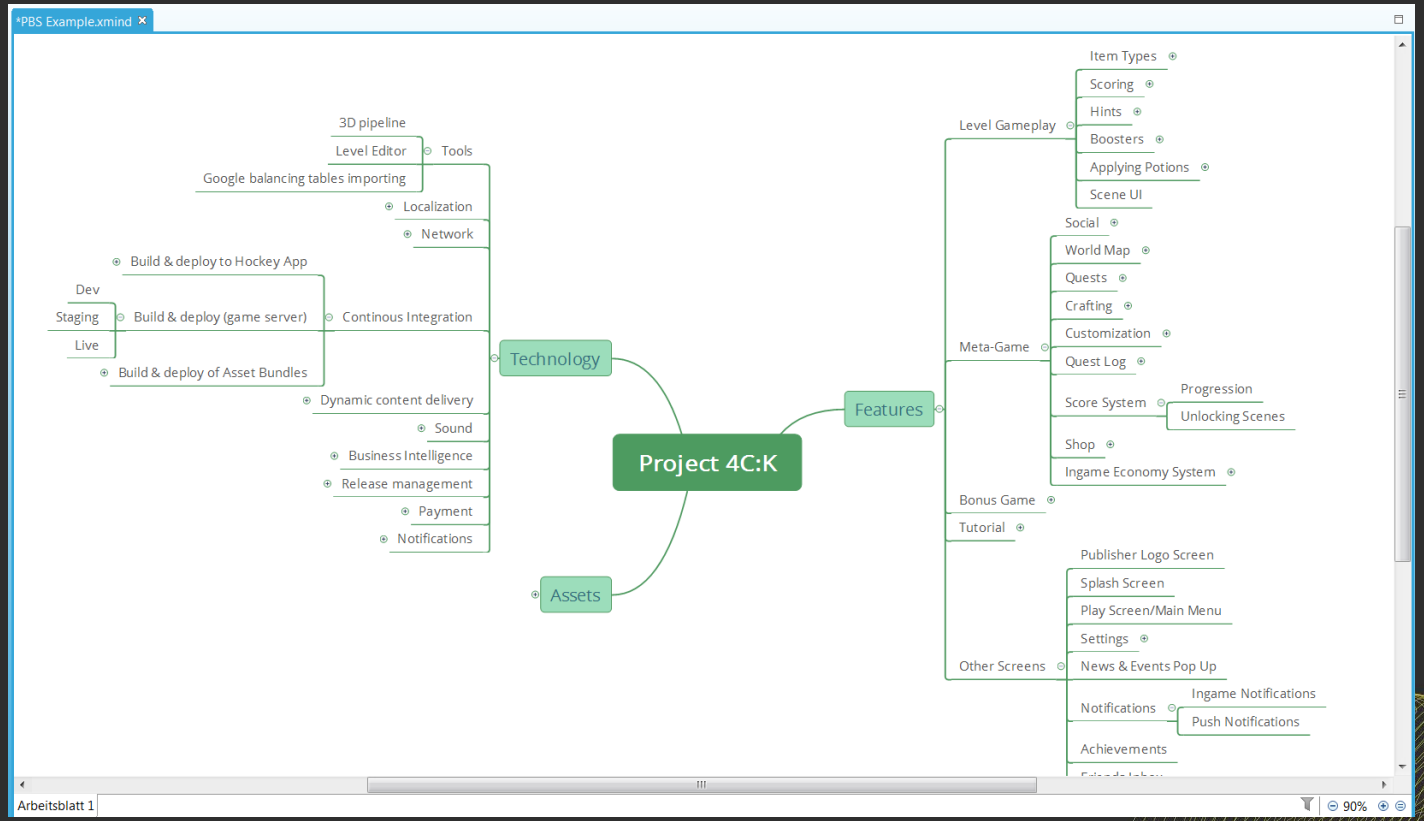
When is a PBS created?

- In parallel when creating GDD (a good place to start, when brainstorming – but finished at end of GDD)

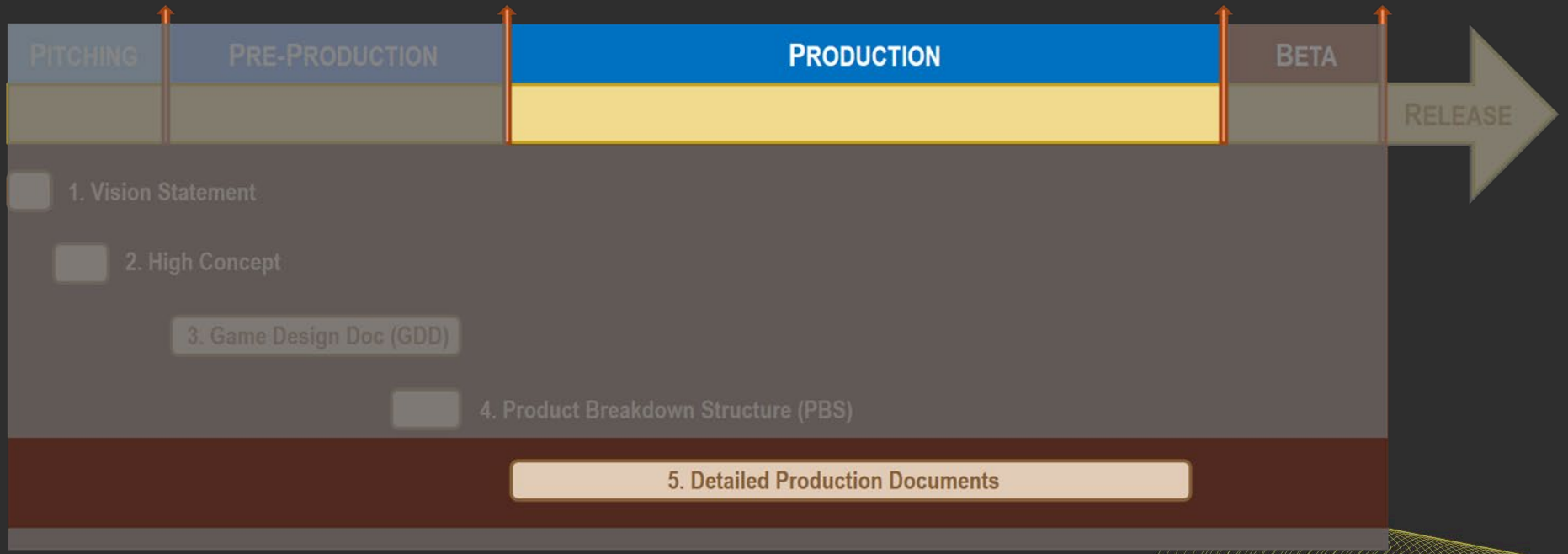
Target Audience

- Primarily Game Design & Project Management/Product Owner

4. PRODUCT BREAKDOWN STRUCTURE (PBS)



5. DETAILED PRODUCTION DOCUMENTS



Goal of Production Documents

- Design of all relevant features for next Sprint(s)/Milestone(s) to fine-toothed level of detail
- These designs will allow definition of all relevant tasks needed to implement such features on a man-day granularity
- Allows a „definition of done“ for all relevant tasks
- Includes all detailed formulas, balancing values etc.
- Should happen in close collaboration with Tech/Programmers

5. DETAILED PRODUCTION DOCUMENTS

Anatomy of Production Documents

- Priority of Feature (Must-Have, Should-Have, Nice-to-Have)
- Feature Ambition (Simple, Competitive, Alternative, Innovative)
- General overview of goals for this feature
- Detailed description of feature implementation in bullet points or user stories (or even Pseudocode)
- Designer’s Note
- Risks
- Change History

5. DETAILED PRODUCTION DOCUMENTS

When are Production Documents created?

- During Production-Phase, ahead of next Sprint(s)/Milestone(s)

Target Audience

- Primarily: Programmers
- QA for creation of Testplans
- Publisher (Producer, Publishing QA)

WRITING DOCS TEAM MEMBERS WILL READ (AND UNDERSTAND)

MAKE IT READABLE

Brevity is the soul of wit

- Keep it short, cut all fluff
- Write in bullet points, no long prose
- Break bigger features into smaller sub-features
- Avoid redundancies
- Work with hyperlinks, cross references and tables
- Create your own template and stick to it

EXAMPLE

Feature overview

In this mini-game 4 different colored containers are displayed in the Topscreen. They represent the thousands, hundreds, tens and ones (the decade system).

A math problem is displayed above those containers. In the Touchscreen a conveyor belt with different colored spheres moving along is displayed.

The player must keep “grabbing” spheres with his stylus and flick them into the correct container above.

The player must fill each container with the exact amount of spheres to match the answer to the task below. Each container can only contain 0 - 9 spheres.

GripsKids Mathe © 2009 dtp/Engine Software
Game Design by Ralf Adam

EXAMPLE

Feature implementation

[…]

- In order to get the correct sphere in the correct container, the player has to point on the selected sphere and hold the stylus pressed.
- The sphere is now "connected" to the stylus and lifted of the conveyor belt.
- The player has to move it under the right container and "flick it", so that it flies into the container in the Topscreen of his Nintendo DS.
- If the player lifts off the stylus before flicking the sphere, the sphere drops back to the conveyor belt.
- The player has to flick the sphere, until the math problem is solved correctly. The program will automatically realize when all containers are filled correctly.
- In that case a "positive" sound signal is played and the player will get a visual feedback on his success.

[…]

GripsKids Mathe © 2009 dtp/Engine Software
Game Design by Ralf Adam

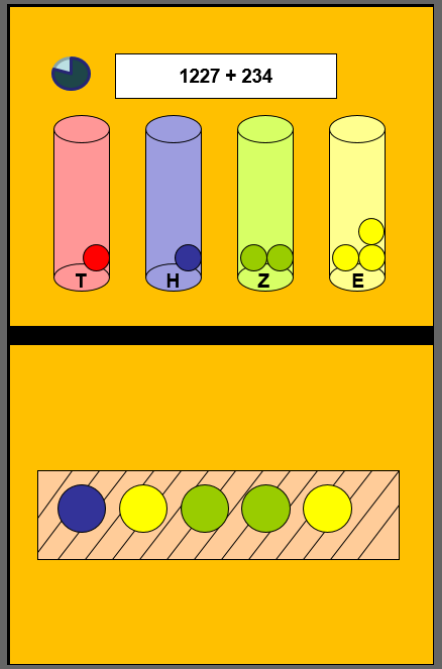
VISUALIZE

A picture is worth a thousand words

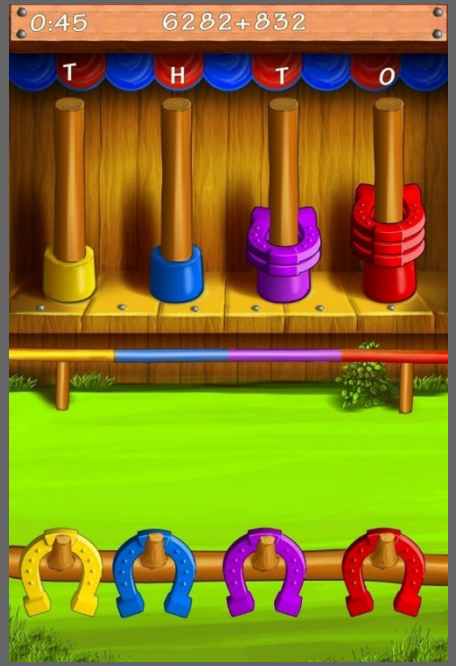
- Visualize as much as possible: Prototypes, Click Dummy, Menu-Flow
- Use references from other games, films & other media
- Great tools to visualize: Power Point, Visio
- But careful: don‘t become the UI-Designer/Artist
- Stay abstract and don‘t tell your team members how to do their job

EXAMPLE: PROTOTYPE

PowerPoint Mock-Up



Final Ingame (NDS)



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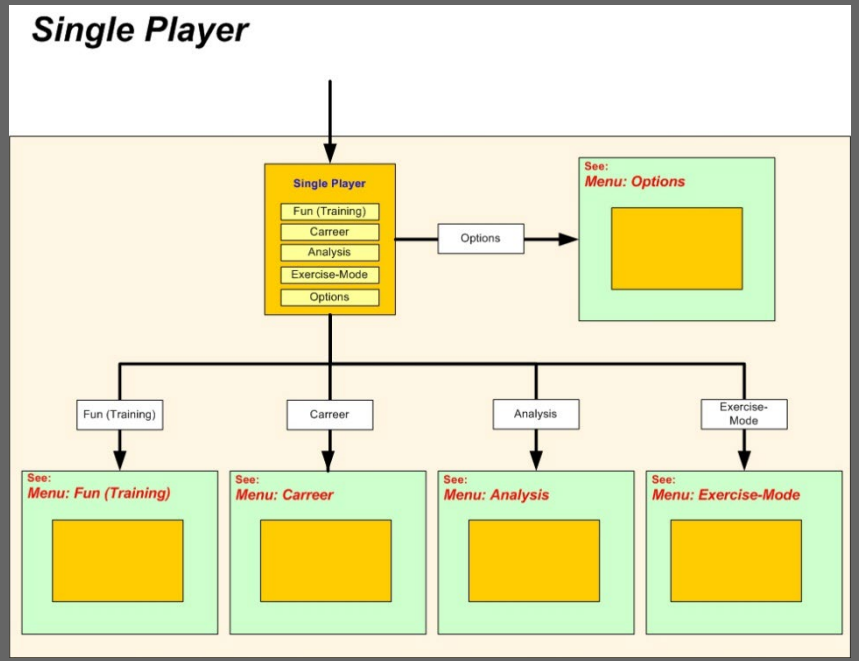
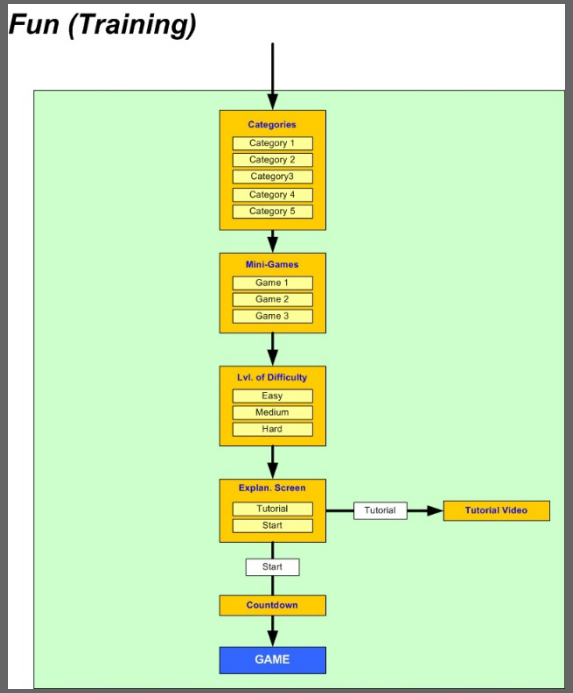
Game Design by Ralf Adam

EXAMPLE: MENU-FLOW





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Game Design by Ralf Adam

EXAMPLE: CLICK-DUMMY

Unnamed Mobile Game
UI Click Dummy Design by Jens Fiedler

BE PRECISE

But your statement shall be „Yes, yes“ or „No, no“

- Don‘t use adjectives such as „maybe“, „potentially“ etc.
- Don‘t use words such as „might“, „may“, „shall“, „could“ etc.
- Don‘t use the word „we“
- Do not only describe what a player CAN do – also describe what he CAN‘T do
- Don‘t expect your reader to know abbreviations (DOT, AOE, BoE, etc.)

CHANGE: YES WE CAN

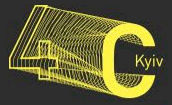
No battle plan survives 1st contact with the enemy

- Knowing that your design will change is no excuse to not document your ideas in the 1st place
- Embrace change: enhance & iterate your design based on feedback
- Only with proper design documentation impacts of change request can be estimated (important when working with publisher)
- Keep change logs for all features
- Also document when and why a feature request have been declined – otherwise you'll have the same discussion in 6 months again

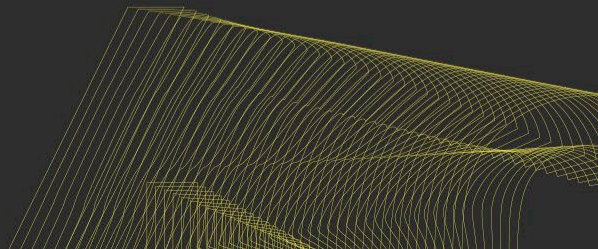
KEEP IT UP-TO-DATE

Don‘t be „Old School“

- Keep your design documentation always up-to-date
- Don’t use offline formats such as Word (everyone will have a different version – no one knows what the actual status is)
- Every Design-Doc has to be under version-control
- Use tools such as Wiki, Google-Docs etc.



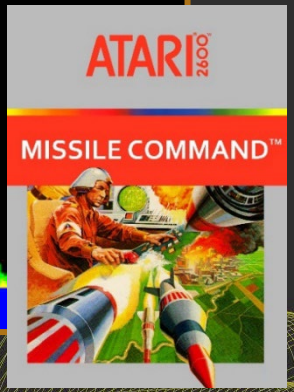
SO, WHAT ABOUT THIS AGILE DEVELOPMENT THING AGAIN?



IT'S NOT NEW...

»Pick an idea. Write up a game proposal. Get it OK'd by management. Take a couple weeks to bring up a playable simple version. Management reviews that and OKs it or axes it. If OK'd, continue with the whole game. Regular reviews by management to make sure still fun. Kill the game if not.«

Dave Theurer (1980)



IT'S NOT THAT DIFFERENT…

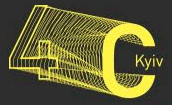
SCRUM and other Agile Development Methods…

- …still have description of specs
- …still prioritize these specs (in the backlog)
- …focus on interation and fast implementation (nothing wrong with that – and not new to game development)
- …are using Epics (general descriptions of feature from player's perspective) and User Stories (detailed description of feature implementation from player's perspective)

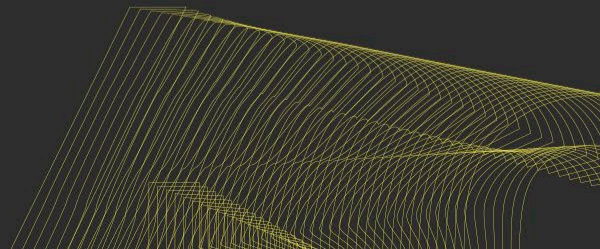
HOWEVER…

Potential Pitfalls when working with SCRUM

- Backlog is often just a list/summary of features…
- …without any clear structure, paragraphs, index etc.
- Context and links are often not easy to understand
- Maintaining both – backlog/user stories and GDD – might be a little overwhelming
- Who‘s the product owner? The Producer? The Game Designer? The Publisher? Shared Ownership?



BEST PRACTICE



REGULAR PLAY SESSIONS

Design by playing

- Do regular play sessions with all team members
- At least once a week, once you have playable
- Gets team buy-in and commitment
- Don’t be afraid of critical comments
- Also get outside feedback (Focus group testing, friends & family etc.)

FEATURE CUT

Don‘t be afraid to cut

- If it does not work – kill it!
- German Design (add features) vs. US-Design (cut features)
- Beware of feature creep
- “A designer knows he has achieved perfection not when there is nothing left to add, but when there is nothing left to take away.”

(Antoine de Saint-Exupery)

CHANGE ORDER

Brace yourself – Change is coming!

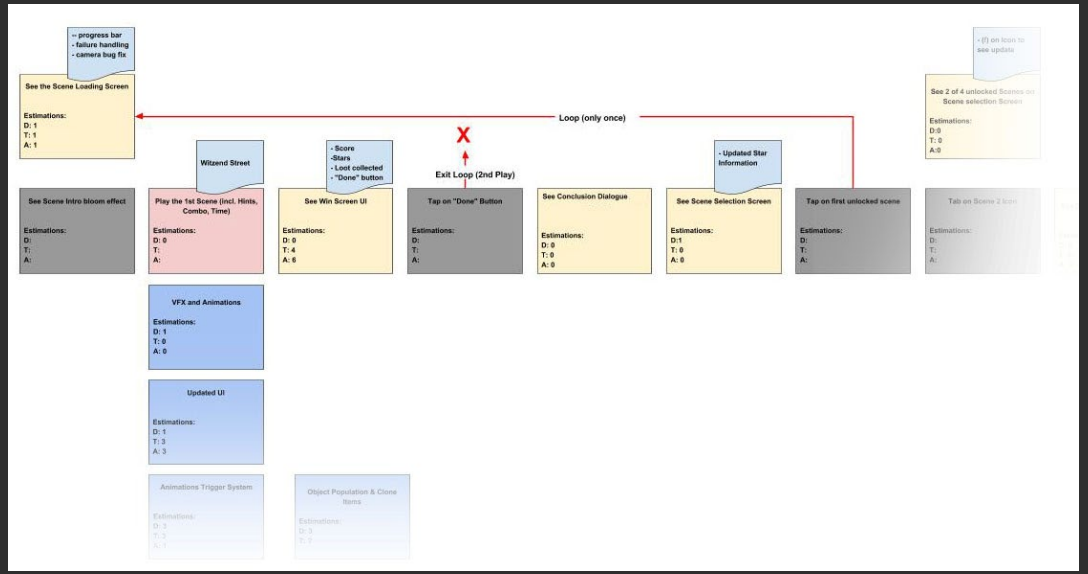
- "A change order is work that is added to or deleted from the original scope of work of a contract, which alters the original contract amount and/or completion date." -> *WIKIPEDIA*
- Make sure you have a change order process in place
- Make sure any change request is in concordance with the soul of your game (Vision Statement)
- Make sure any change order is either greenlit or declined through official formal process
- Document any change request (both: in case it's greenlit or denied)

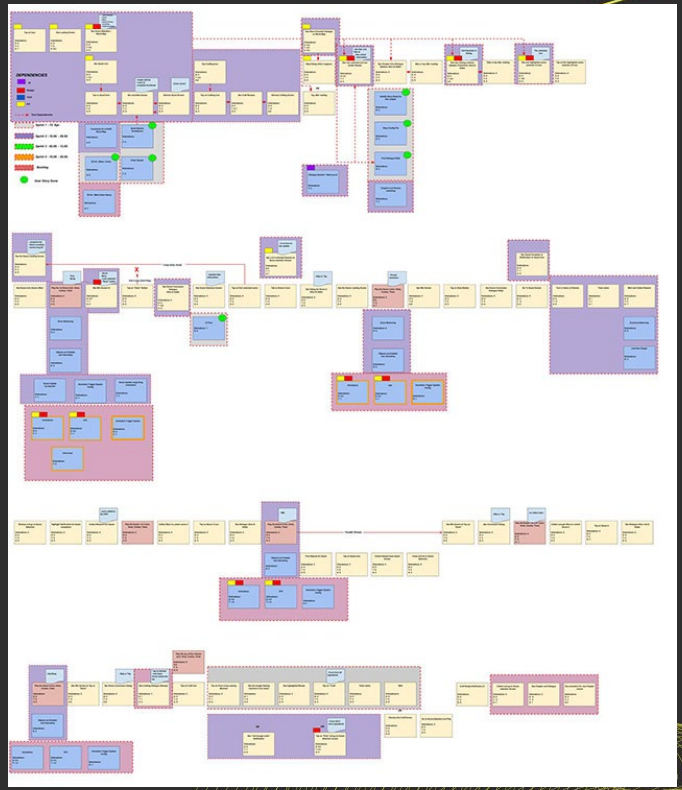
STORY MAPPING

A great way to visualize

- Perfect for Walkthroughs/User Experience descriptions and UX-Flow
- Can be easily turned into user stories/cards for Kanban
- Supports QA in creation of testplans and acceptance criteria
- Tools: Post-It, Visio, PowerPoint, GoogleDrawings etc.
- https://www.thoughtworks.com/de/insights/blog/story-mapping-visual-way-building-product-backlog

EXAMPLES


- progress bar
- failure handling
- camera bug fix
See the Scene Loading Screen
Estimations:
D: 1
T: 1
A: 1
Loop (only once)
X
Exit Loop (2nd Play)
See 2 of 4 unlocked Scenes on Scene selection Screen
Estimations:
D:0
T: 0
A:0
Witzend Street
- Score
-Stars
- Loot collected
- "Done" button
- Updated Star Information
See Scene Intro bloom effect
Estimations:
D:
T:
A:
Play the 1st Scene (incl. Hints, Combo, Time)
Estimations:
D: 0
T:
A:
See Win Screen UI
Estimations:
D: 0
T: 4
A: 0
Tap on "Done" Button
Estimations:
D:
T:
A:
See Conclusion Dialogue
Estimations:
D: 0
T: 0
A: 0
See Scene Selection Screen
Estimations:
D:1
T: 0
A: 0
Tap on first unlocked scene
Estimations:
D:
T:
A:
VFX and Animations
Estimations:
D: 1
T: 0
A: 0
Updated UI
Estimations:
D: 1
T: 3
A: 3
Animations Trigger System
Object Population & Clone Items

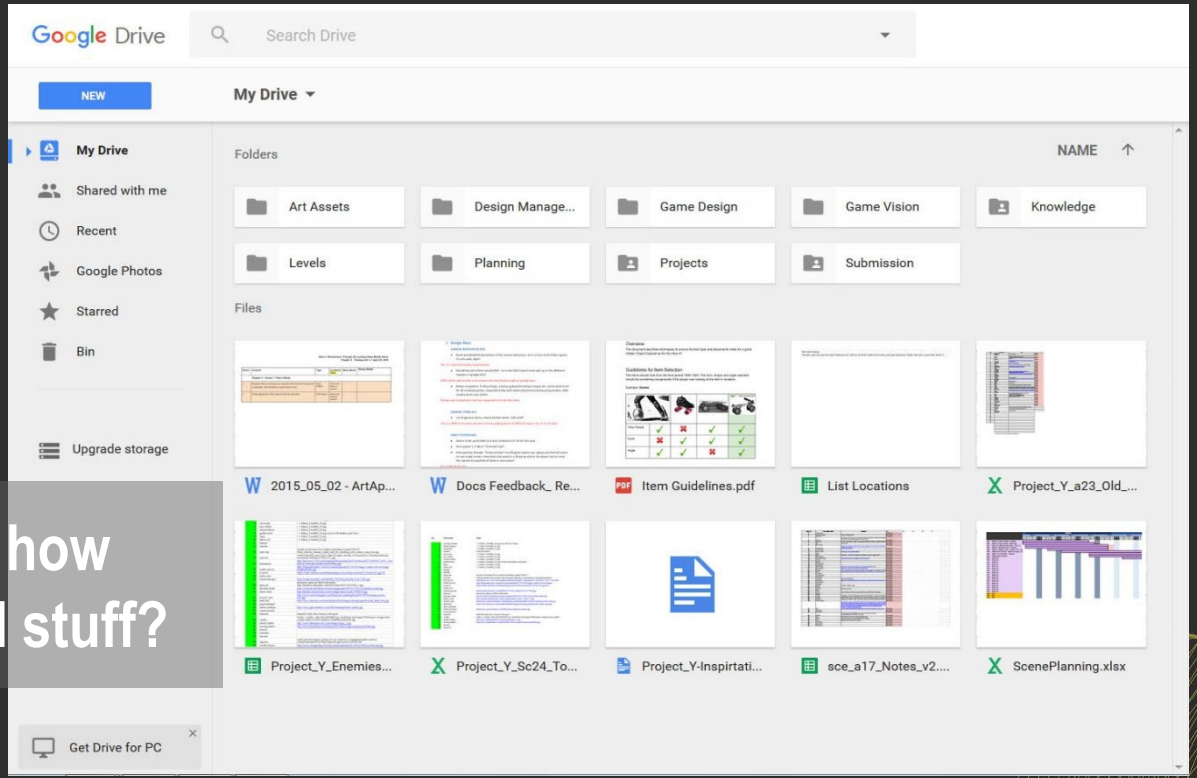


OTHER TOOLS

The Game Designer‘s Utility Belt

- MindMapping Tools such as XMind, Mind Manager etc.
- Trello (perfect for asset tracking)
- Power Point, Visio, Balsamiq, Pencil etc. for Wireframing
- Wiki for Design Documentation (e.g. Confluence)
- Google-Docs: great for Balancing-Sheets (live balancing), no so great for structure / readability

THE PROBLEM WITH GOOGLE DOCS



No index – how do you find stuff?

GENERAL RECOMMENDATIONS

Some Last-Minute Gems

- Be more iterative in Pre-Production, and less in Production
- Try to have as many prototypes as early as possible (playable version always beats design on paper)
- Start production with implementation of most crucial and risky features
- Be the Vision-Keeper: You are ultimately responsible for the fun
- Make sure contract with your Publisher takes change order as well as full scope specs & planning earliest at End-of-Pre-Prod into account

INTERESTING READS

How to write Great Design Docs / Damion Schubert
http://www.zenofdesign.com/wp-content/uploads/2014/12/Writing_Design_Docs_2008.pdf

Story Mapping, Visual way of building Product Backlog
https://www.thoughtworks.com/de/insights/blog/story-mapping-visual-way-building-product-backlog

The 400 Project / Hal Barwood & Noah Falstein
http://www.finitearts.com/pages/400page.html

Five rules for a Game Designer / Bruce Shelley
http://www.gamesauce.biz/2010/09/07/bruce-shelleys-five-rulessteps-for-a-game-design%E2%80%99s-first-draft/

What makes a great Game
http://pixelpaton.com/?p=3385

ANY QUESTIONS?

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