

Game Production : why is it important for game designers ?

- How will the game production process impact your work on a daily basis ?
 - What happens when a game designer works regardless of the game production process ?
- ⇒ A game designer must have an excellent understanding of the game production process in order to work efficiently, and produce quality deliverables

COURSE PLAN

1. The game production process
2. Being an efficient team member
3. Writing efficient sales pitches
4. Game production management
5. Writing efficient game design documents
6. Career management

1. The game production process

Objectives:

- Understand game production phases, deliverables and expectations

Summary

- The paper tower
- Production approaches
- Production process
- Phases and milestones
- Online games production process

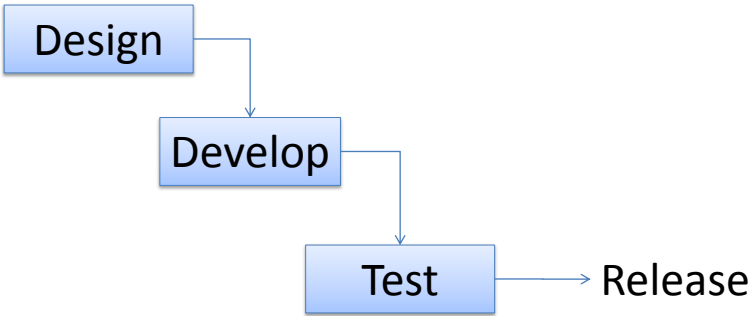
The paper tower !

- Gather in groups of 4
- **Objective:** Using the sheet of paper only, no other material or tool, construct the best, tallest free-standing structure
- 10mn & 1 sheet of paper to practice
- 5mn & 1 sheet of paper to build your final tower

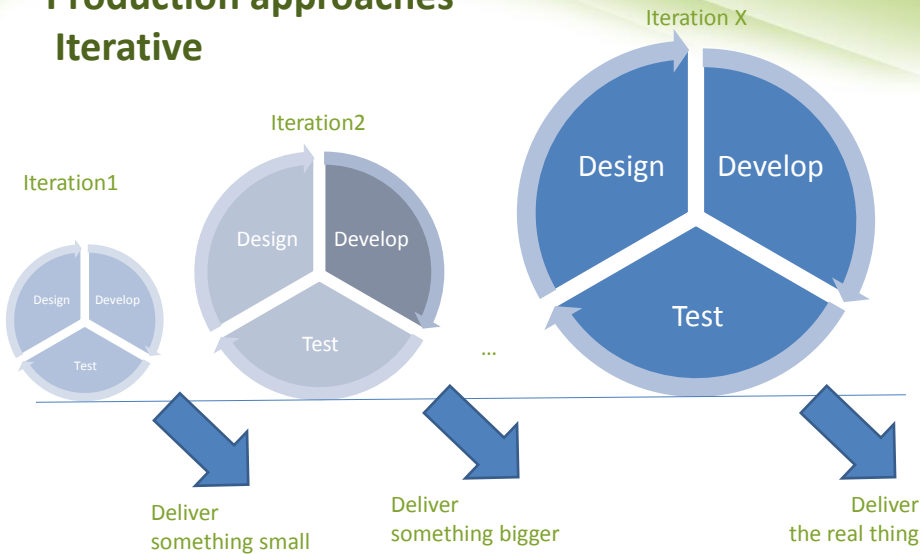
Paper tower results

- Impossible constraints?
- Planning and timing
- Pressure
- Innovation
- Risk management
- Skills
- Teamwork
- Process improvement
- Iterate, 1 more sheet, 5 more minutes !
- Best practice, 1 more sheet, 5 more minutes !

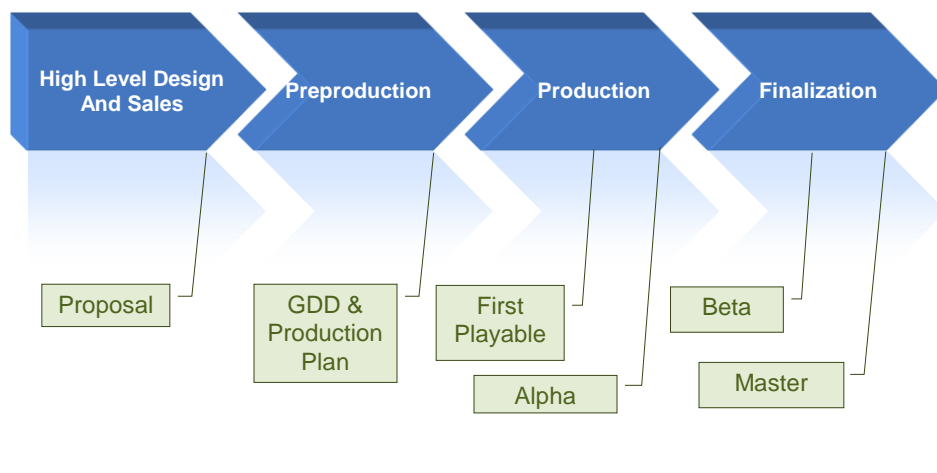
Production approaches
Waterfall



Production approaches
Iterative



Offline games production process




High Level Design And Sales

- Shape the project
- Answer the following questions
 - What player experience will we try to deliver?
 - What is the core gameplay?
 - What resources will be necessary to produce the game?
 - Will we make money with the game?
- High uncertainty, biggest impact on the game
 - Usually handled by senior/executive people
 - High level of interaction with marketing/sales



Proposal

- It takes various forms depending on the company
 - High Level Game Design/Game Brief for 1st Party projects
 - Game Proposal for 3rd Party projects
- Objective: seduce, convince, sell
 - Original & interesting
 - Feasible
 - Marketable, return on investment




Preproduction

- Objectives
 - Prove that the team can deliver what was promised
 - Organize production
 - Design details,
 - Technical design,
 - Project management & planning
- Impacting choices, usually handled by team leaders



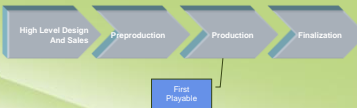
GDD & Production Plan

- Define precisely what will be produced and how
 - Production team organization (planning, milestones, team & resources, etc.)
 - Design (mechanics, controls, screens, scenario, etc.)
 - Concept art
 - Technical design (+ sometimes proof of concept / prototype)
- Many things will be discovered down the road



Production


- This is the main part of the project
- Game assets (GFX, Sound, ...) are produced
- Code is developed
- Game is tuned
- The design (GDD, TDD, Art direction) may change as the team faces production challenges & crises
- But be careful of
 - Feature creep (doing things not in the design)
 - Feature drop (dropping thing that are in the design)



The diagram shows a four-stage process: 'High Level Design And Sales', 'Preproduction', 'Production', and 'Finalization'. A box labeled 'First Playable' is connected to the 'Preproduction' stage.

First playable


- This is the first version of the game which demonstrates gameplay
- Demonstrates a vertical slice of the game
 - Core features of the game
 - Sketches progression in the game
- Limits
 - Not feature complete
 - May include placeholders
 - May have bugs



The diagram shows a four-stage process: 'High Level Design And Sales', 'Preproduction', 'Production', and 'Finalization'. A box labeled 'Alpha' is connected to the 'Production' stage.


Alpha

- This is the version of the game which can be given to internal or selected external testers
- Demonstrates a vertical slice of the game
 - Feature complete
 - Demonstrates progression in the game
 - Can be used to know if user experience is satisfactory
- Limits
 - May include placeholders (usually 50% content available)
 - May have bugs
- Last chance to change features!




Finalization

- At this step often shown as part of production, the only objective is to get the project through the door !
- It is hard to finalize a project
 - The team faces external input the most
 - Client: they best realize what the product is only at this point they will ask for changes
 - Players: if they don't like, no "it's not finished" excuse
 - QA Team: they have an external point of view, they know the usual suspects
 - The most tedious/less exciting problems are often left for "later"
- Polishing can make or break a game, and it can only happen if the project has been steered wisely from its early beginning



Beta

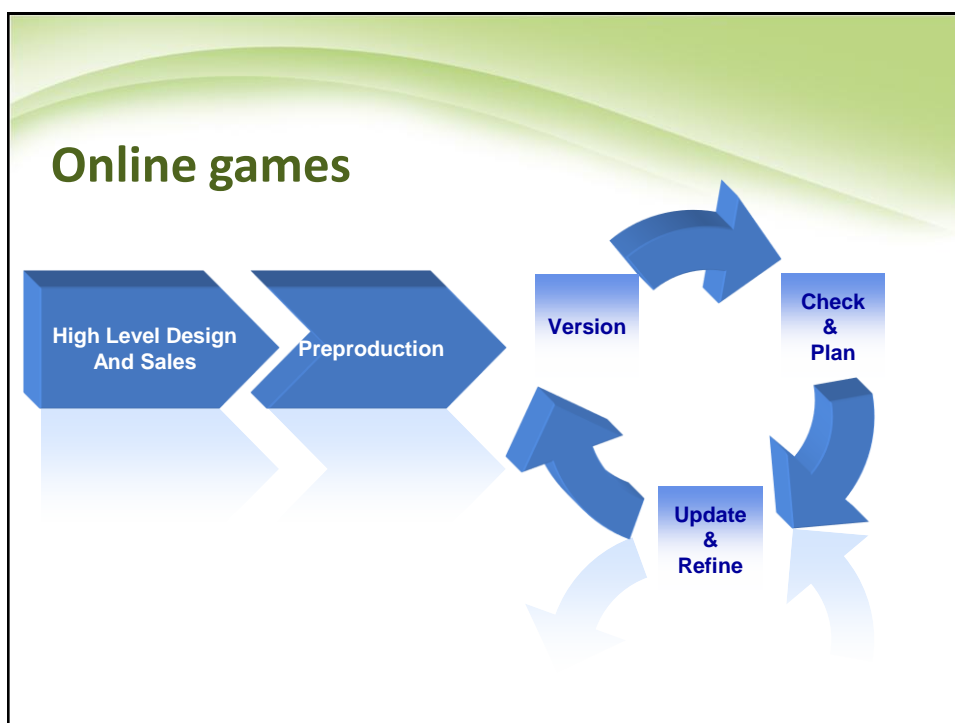
- This is the version of the game which can external testers
 - The full game (all final features, all content)
 - May have bugs
- Once the beta has been delivered, a Bug database is usually used
 - There will be **a lot** of bugs
 - Test your game thoroughly
 - Track, prioritize, follow up, fix
 - You will most probably have to fix **all** of the bugs anything that you put under the carpet will backfire !



The diagram shows a horizontal flow of four chevron-shaped boxes: 'High Level Design And Sales', 'Preproduction', 'Production', and 'Finalization'. A small box labeled 'Master' is positioned below the 'Finalization' box, with a line connecting it to the 'Finalization' box.

Master

- The master is delivered when the game is considered final
 - The production team delivers a Master Candidate
 - Only the QA/Manufacturer team can validate it as a Gold Master (final master, ready to be published)
- External QA is essential at this step, the team has too much physical/emotional involvement in the game
- On console games, console manufacturers are also taking a final test round
 - Technical Requirement Checklists (TRC) are one the production greatest challenge, take care of these early on !



Think about your project over lunch!

- **Flash game subjects**

- Match-3 game
- Word game
- Hidden objects game
- Fitness game
- Pet game
- Cards game
- Tower defense game
- Time management game

- **Everyone in each group of 4 MUST choose a different subject**
- In this course we will only work on the **Design**, but think of your portfolio - if you can take it beyond it's much much better!

2. Being an efficient team member

Objectives:

- Understand the importance of teamwork
- Understand how to work with others to build a game
- Learn how to handle meetings and brainstorm

Summary

- Lost at sea
- Strength & weaknesses of a team
- Game production team roles
- Facilitating meetings
- Brainstorming

Lost at sea!

- **Scenario:** You and your team have chartered a yacht. A fire breaks out and much of the yacht and its contents are destroyed. The yacht is slowly sinking...

Your location is unclear because vital navigational and radio equipment has been damaged. Your best guess is that you are approximately 1000 miles of the nearest landfall.

You and your friends have managed to save the following 15 items, undamaged and intact after the fire.

Lost at sea – the list

- Sextant
- Shaving mirror
- Quantity of mosquito netting
- 5 gallon can of water
- Case of army rations
- Maps of the Pacific Ocean
- Floating seat cushion
- 2 gallon can of oil/petrol mixture
- Small transistor radio
- 20 square feet of Opaque plastic sheeting
- Shark repellent
- One quart of 160 per cent proof rum
- 5 meters nylon rope
- 2 boxes of chocolate bars
- Fishing kit

Lost at sea!

- In addition to these objects, you have salvaged a four man rubber life craft.
- The total contents of your combined pocket's amounts to a packet of cigarettes, three boxes of matches and three bills.
- **YOUR CHANCES OF SURVIVAL WILL DEPEND UPON YOUR ABILITY TO RANK THE 15 ITEMS IN THEIR RELATIVE ORDER OF IMPORTANCE.**
GOOD LUCK!

Lost at sea - instructions

- **Rank these items BY YOURSELF on list 1**
 - 5 minutes
- **Gather in teams**
 - Share your ideas with others
 - Fill in the ranks in list 2 **with your team**
 - The list is shared and must be a consensus
 - 10 minutes
- **Rank these items BY YOURSELF on list 3**
 - Can be based on discussions with others
 - 2 minutes

Lost at sea - results

- **Results handout**
- **Score the lists**
 - Correct item = 5 points
 - Item correct +/- 3 ranks = 3 points
 - Item correct +/- 5 ranks = 1 points

Lost at see - results

According to the experts (US Coastguard), the basic supplies needed when a person is stranded mid-ocean are articles to attract attention and articles to aid survival until rescue arrives. Articles for navigation are of little importance since even if a small life raft were capable of reaching land, it would be impossible to store enough food and water to survive for the requisite amount of time.

Without signalling devices, there is almost no chance of being spotted and ultimately rescued. Furthermore, most rescues occur within the first 36 hours and a person can survive with only a minimum of food and water during that period.

Lost at see - results

1. Shaving Mirror	Critical for signaling
2. 2 gallon can of oil/petrol mixture	Critical for signalling The mixture will float on water and could be ignited with one of the £5 notes and a match.
3. 5 gallon can of water	Necessary to replenish fluids lost through perspiration
4. One case of army rations	Basic food intake
5. 20 square feet of opaque plastic	Can be utilised to collect rain water and provide shelter from the elements

Lost at sea - results

6. 2 boxes of chocolate bars	Reserve food supply
7. Fishing kit	Ranked lower than the chocolate as 'a bird in the hand is worth two in the bush. There is no guarantee you will catch any fish.
8. 15ft of nylon rope	Could be used to lash people or equipment together to prevent it being washed overboard.
9. Floating seat cushion	A life preserver if someone fell overboard
10. Shark repellent	Enough said

Lost at sea - results

11. One quart of 160 per cent proof rum	Contains 80% alcohol, which is enough to be used as an antiseptic for any injuries, otherwise of little value – would cause dehydration if ingested
12. Small transistor radio	Of no use without a transmitter. You would also be out of range of any radio station.
13. Maps of the Pacific Ocean	Worthless without navigation equipment. It does not matter where you are but where the rescuers are!
14. Mosquito netting	There are NO mosquitos in the ocean. As for fishing with it? – stick to the fishing kit.
15. Sextant	Useless without the relevant tables and a chronometer.

Lost at sea - results

- **Results handout**
- **Score the lists**
 - Correct item = 5 points
 - Item correct +/- 3 ranks = 3 points
 - Item correct +/- 5 ranks = 1 points
- **Discuss the results**

Team: Strengths and weaknesses

- **Pros**
 - Different points of view -> More ideas
 - Gets people involved in a project
- **Cons**
 - Harder to settle down
 - Original ideas may be rejected

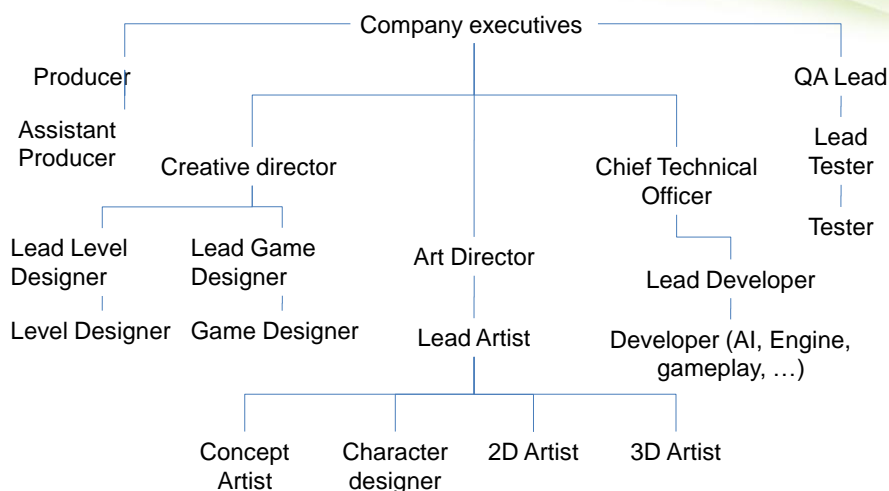
Game production complexity

- Depending on the project, game may require
 - Hundreds of 2d & 3d Graphic assets
 - Thousands of code lines
 - Hundreds of sound files
 - Hundreds of people collaborating
 - Have you worked with someone else on the same project, have you seen how hard it is?
 - Complexity raises exponentially with project size
- => The team must have a perfect organization!

Game production team organisation

- Producing games demands both
 - A rigid structure, a strong backbone indispensable to build a sturdy game
 - Project efficiency
 - Profession excellence
 - Flexibility so that people can
 - express themselves, deliver artistically interesting elements,
 - get involved,
 - collaborate efficiently

Game production team roles



Configuration management tool

- The configuration management system is a repository for all project files (documentation, source code, assets)
- Facilitates synchronization when you need to collaborate with other team members
 - File system organization so everyone can find the files easily
 - Locking files so others won't change it at the same time as you, or merging changes when you check it in
 - Check who changed what, when, and for what reason
 - Come back to previous versions
 - Branch, so that 2 versions can be worked on at the same time
- Industry standard: SVN

Bug tracking tool

- Problems will pile up near the end of the project
 - Many people will give feedback (demands, bugs, suggestions, etc.)
 - Track current status of the game: known bugs, how critic
 - Assign bugs: whose job is it to fix it?
 - Track actions & feedback on each bug, even after they have been solved
- Industry standard: MANTIS bug tracking system.

Production team dynamics

- Game production teams have complex dynamics
 - There is a double hierarchy system: the project (producer decides) and the position (boss decides)
 - Team is broken down into departments which need to collaborate closely
 - If a debate arises, ask yourself the question: who knows better?
- Never overlook hierarchy, people feel it when you are uncooperative
 - Be creative and find a way to make it work for both you and your boss

Production team dynamics

- People come into this industry with their hearts
 - They usually want to be artists, not factory workers
 - They like to have a say in what they do, and the design often defines that!

=> Discuss and listen to coworkers, they may have good ideas, and they definitely will be more willing to implement your design if you include some of their suggestions.

Keep the lead of your job. Make it clear that suggestions may not all be accepted, but you will include some.

Also keep in mind you will have to explain your choices.

Facilitating meetings

- The facilitator is the person who guides the meeting
- Introduce
 - What is the objective
 - Who is participating and why
 - Explain the context, share background research
- Keep track of agenda and time
- Give speech
 - Make sure everybody participates
 - Make sure the right person talks on the right subject
- Summarize discussions/actions at end of meeting
- Take notes, send a report

Brainstorming

- Even if this looks like a casual discussion, remember this is a **Professional setting**
 - Come prepared
 - Listen
 - Participate when appropriate
 - Offer new perspectives
 - Find solutions, propose alternative
 - Be respectful & don't get too emotional
- Do not debate, propose ideas!
- Give your opinion only if
 - you have clear leadership (ie art director for graphics)
 - it recenters the discussion if it went clearly too far

Brainstorm your project!

- **Take 30mn to research, and write a brief on your chosen subject**
 - Subject
 - What player experience you'd like to deliver
 - What will make your game unique
- **Gather in teams**
 - Each one in turn should lead the brainstorm about his/her game
 - 20mn / subject

Brainstorming session report

- You will have to deliver your brainstorming session notes in the following format
 - MS Excel Spreadsheet or MS Word Document
 - Subject summary
 - Brainstorming session objective
 - Table of subjects discussed /input received

Subject	Name of team member 1	Name of team member 2	Name of team member 3	Name of team member 4
Description of subject 1		Description of input idea #1		Description of input idea #2
Description of subject 1		Description of input idea #3	Description of input idea #4	
...				

Brainstorming session follow-up

- Send your report to other team members and confirm with them you have not forgotten anything
- You will have to include ideas from other team members in your project
 - Remember how new perspectives were useful in the “Lost at sea” exercise
 - It is not mandatory to include ALL ideas, you retain leadership of your project but you must include a reasonable number of them
 - This is how it works in the real world!

3. Writing efficient sales pitches

Objectives:

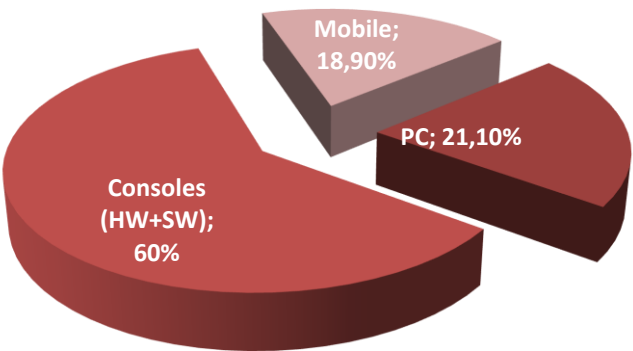
- Understand the gaming market
- Learn how to build and write impacting proposals

Summary

- Overview of the game industry market
- How to build a good proposal
 - Research
 - Refine
 - Evaluate
- Write the proposal

The console industry market

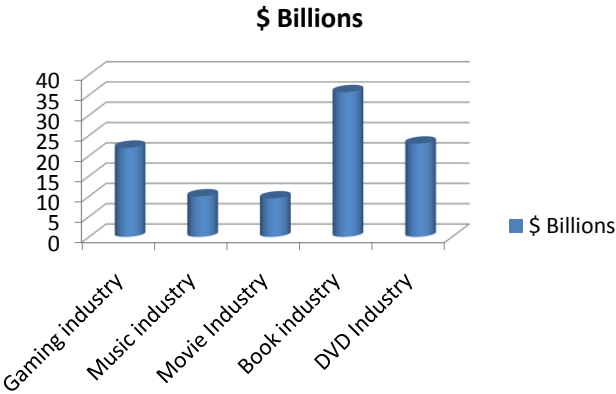
- A \$54 billion global market



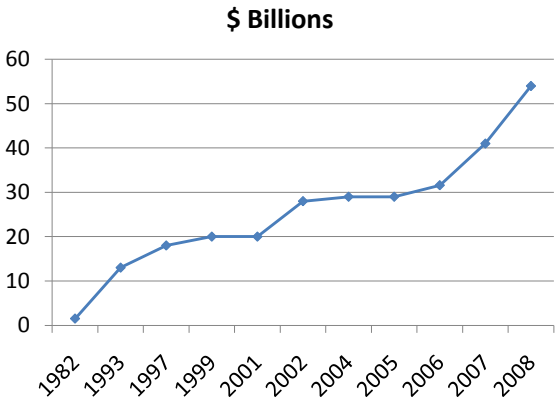
The console industry market

Country	Population	Av. market spend	Revenue 2008	Market Share
USA	306,088,000	\$ 71.98	\$ 22,031,000,000	40.42 %
United K.	60,975,000	\$ 111.95	\$ 6,825,961,080	12.57 %
Japan	127,433,494	\$ 50.57	\$ 6,443,666,600	11.87 %
France	62,448,977	\$ 66.46	\$ 4,150,274,560	7.64 %
Germany	82,060,000	\$ 47.35	\$ 3,885,243,440	7.16 %
Canada	33,596,000	\$ 62.21	\$ 2,090,000,000	3.85 %
Spain	46,157,822	\$ 43.74	\$ 2,018,747,680	3.72 %
Italy	59,905,225	\$ 29.72	\$ 1,780,501,620	3.28 %
Australia	21,700,000	\$ 62.39	\$ 1,353,772,000	2.49 %
Netherlands	16,492,230	\$ 56.67	\$ 934,657,620	1.72 %

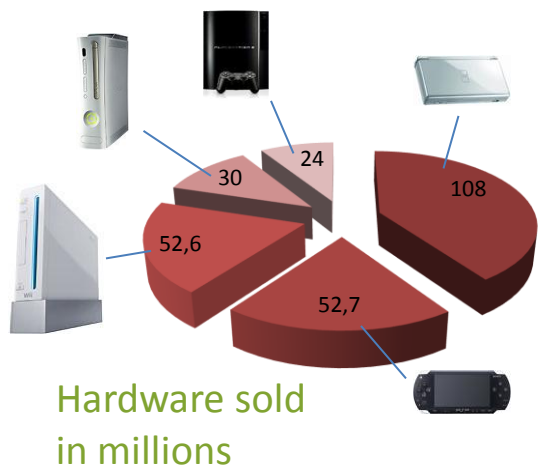
Comparison with other US industries



Progression since 1982



The console gaming market



- Casual and mobile platforms are the most represented
- Outsider: iPhone and iPodTouch (30 Millions units sold)
- What do you think were the best sales in 2008?

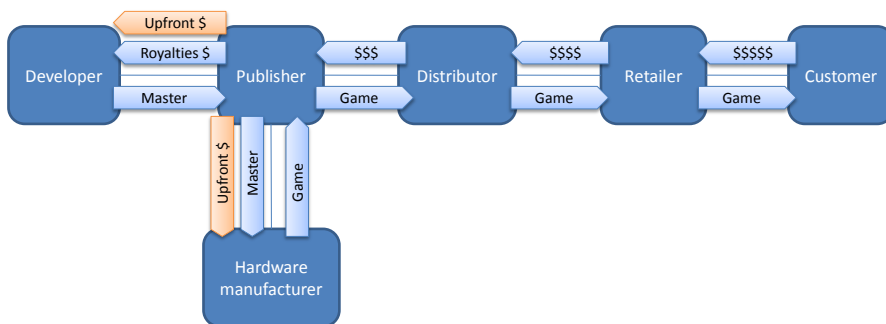
2008 Best sales

Platform	Video game	Total sales (million units)
Wii	Mario Kart Wii	8.94
Wii	Wii Fit	8.31
PS3/X360	Grand Theft Auto IV	7.29
Wii	Super Smash Bros. Brawl	6.32
PS3/X360	Call of Duty: World at War	5.89

- This does not seem to fit with previous graphic, why?
 - Number of references
 - Piracy
 - Licenses
 - Marketing

The console gaming industry

- The classical distribution model



- Publishers take the most risks because they invest on the project upfront, with no guarantee that the game will sell !

The console gaming industry

- A new model is appearing: wireless distribution
 - Apple AppStore
 - Xbox Live Arcade, PSN, Wiiware
 - DSiWare, PSPGo



- This changes everything but does not solve all problems
 - Developer still needs money to invest in production
 - Developer needs to start publisher activities (advertisement, PR, etc.)

The PC/Mac gaming market

- The traditional PC/Mac market has almost disappeared
- Remains
 - MMO games
 - Casual market
 - Social gaming
 - Web games



The crisis



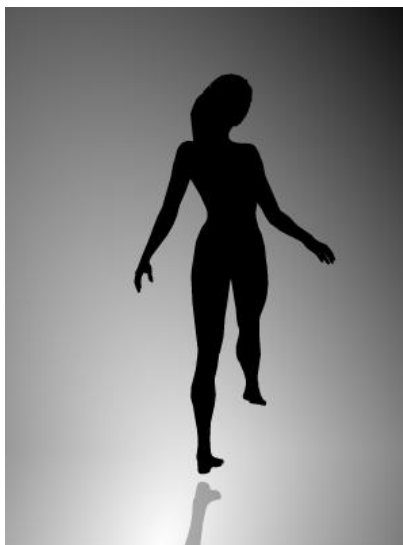
What this all means to you

- Publishers/Executives will be interested in your project only if they are sure they can make a profit with your game
- These numbers are really important to them to evaluate your project
- Before writing a proposal you must
 - make sure there is a market
 - understand the market
 - find a good angle to tackle the market
 - build a production budget and business plan that earns money

Activity: What do you see



Activity: What do you see

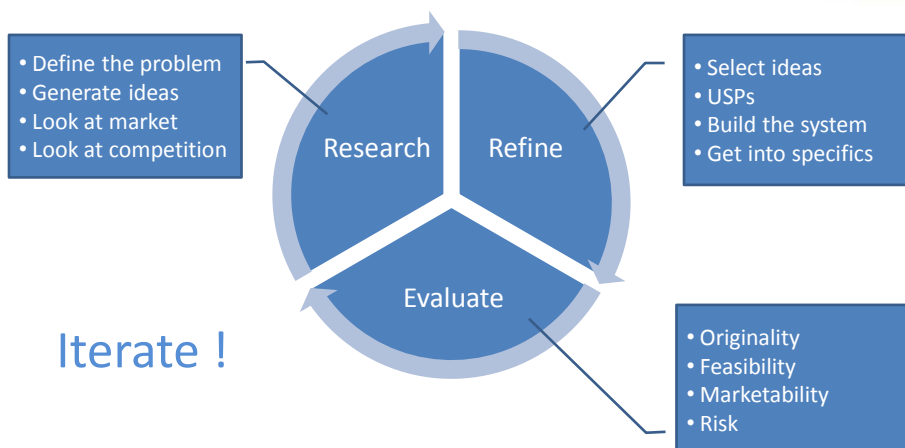


Game proposal

- To sign off a project, you will have to present a proposal to your publisher/executives
- Objective: sell the project to them
 - Is the project original?
 - Will the project make money?
 - Does the product build on an existing genre?
 - Does the project fit in the company's brand, and strategy?
 - Will the company be able to market the project?
 - Will the team be able to produce it on time and on budget?
- Executives will try to minimize their risk and maximize their Return On Investment (ROI)



How to build a good Game proposal



The main idea: origins



- **The Me Too strategy**
 - Find a good game that works, clone it
- **The Brand strategy**
 - Enrich a brand with an additional game that makes sense
- **The Licensing strategy**
 - Build a game where the audience will be driven by a license
- **The Technology Innovation strategy**
 - Find an interesting use for new technology
- **The Gameplay Innovation strategy**
 - Find an interesting use for innovative gameplay

Define the problem



- What are the project constraints due to its origin?
- What is your game audience? (Age, gender, social level)
 - Who will play your game?
 - What is important to them?
 - How can you build something great for them?
- What player experience do you want to deliver?
 - What is essential to this experience?
 - How can your game capture this essence?
- What is the theme of the game?
 - How can you reinforce this theme?
- What pleasures will the player find in your game?

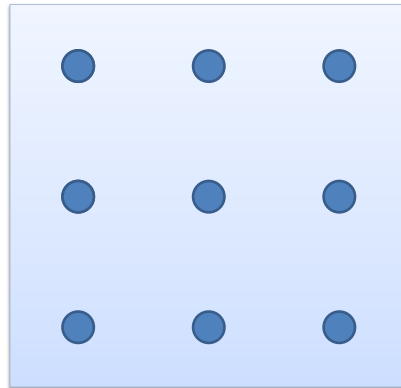
Generate ideas



- Listen to yourself
 - Rely on your subconscious
 - Think about your project when you are most creative (shower, transportation, ... whatever!)
 - Write down your ideas to free your mind
 - Sketch & draw
- Listen to your team
 - Organize brainstorming sessions
 - Discuss the project informally with team members you trust
- Listen to your players
 - Interview players who are part of your audience

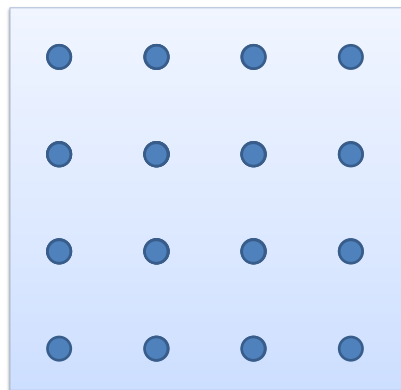
Activity: Connect the dots

- Connect the 9 dots with 4 consecutive straight lines
 - Don't lift the pen when drawing the lines



Activity: Connect the dots

- Connect the 12 dots with 6 consecutive straight lines
 - Don't lift the pen when drawing the lines



Analyze competition



- The industry is filled in with talented professionals
 - Chances are someone already had an idea similar to yours
 - Chances are they have had some interesting ideas that you haven't thought of
 - Chances are they are more experienced than you in the genre since they already produced this game
- Jump start your thinking by looking into existing games on the same market
 - What are the good ideas you would like to reproduce?
 - What are the mistakes/difficulties to overcome?
 - Did the games in the same market sell, and why?
- Do this research to share it with others

Analyze market



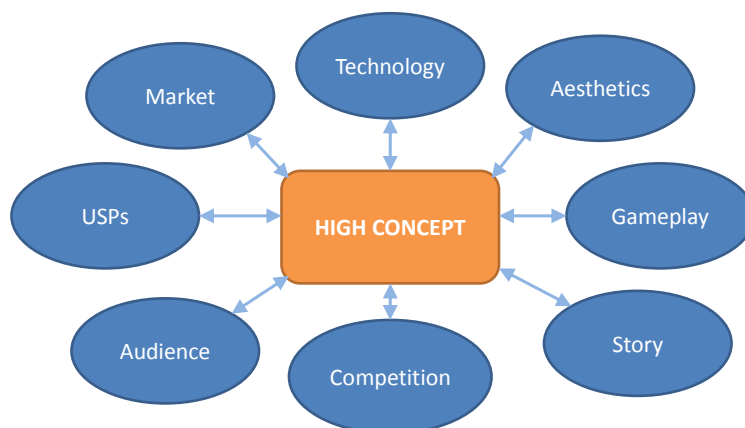
- Even the best game cannot succeed without a market
- Learn the basics of the market
 - What are the sales on the target platform?
 - What are the success factors on this market?
 - What kind of teams are entrusted with projects on this market?
 - What kind of budget can the production team spend to build the game?
 - What will happen on the market when the project is delivered?
 - Are there important deadlines on this market?
 - What are the main risks on this market?
 - How are publishers investing on projects in this market?

Conclude research

- At the end of your research you will have a collection of ideas, guidelines, analyses
- Chances are you won't be working on the proposal by yourself, so remember
 - Be ready to share and justify your findings
 - Track the results of your research
- It is now time to put it all together to build an interesting game!

The High Concept

- To build your high concept, you have to take many things into account at the same time



Put it all together



- Review each idea
 - Is it interesting/original?
 - Is it in tune with the audience?
 - Is it in tune with the theme?
 - Does it serve the Player experience?
 - Does it work well with the other ideas, or does it stand out as something else?

Unique selling points



- Select your USPs within these ideas
 - Why will customers buy your game instead of your competitor's?
 - What are the most important angles that make your product unique?
- ⇒ If your product has nothing original, no strong new idea, then it will not stand out!



Unique selling points



- Tips to select the right ideas
 - Is your USP really original?
 - Have you looked into the market sufficiently?
 - Is your USP strong enough?
 - Is your USP sufficiently impacting on the game?
 - Is your USP respecting the game genre?
 - What are the chances somebody else is working on the same USP ?
- Great graphics, coding or tuning are not USPs. This is expected from ALL projects. Your role as a designer is to propose UNIQUE GAMEPLAY FEATURES.

Build the system



- Now that you have your guiding ideas, you must build a system around these
 - Link the ideas together to make it a single game, very everything interacts
 - The ideas that you keep must
 - Reinforce your central points, not fight against it
 - Have a reason to be there
 - Build a whole that is better than the sum of its components
- Try to use as few as possible, and still create an interesting game



Characteristics of a good gameplay



- Few elements, and still interesting
 - Simple rules, easy to learn, easy to play
 - Complexity arises from a strong central idea, and emergent gameplay, not from a collection of small things
 - Complexity is introduced progressively
- Gameplay encourages players to play even more: success, rewards, accomplishments, etc.
- The game has surprises for the players, and makes them curious to explore it
- The game is fun to play
- The game builds on simple player pleasures

Characteristics of a good gameplay



- A good game also has good balance
 - Action vs Reflexion
 - Skill vs Chance
 - Exploration vs Goals
 - Competition vs Cooperation
 - Reward vs Punishment
 - Simplicity vs Complexity
 - ...
- Knowing how to balance a game requires experience
 - Play a lot of game and analyze them
 - Watch people play and listen to them





Get into specifics

- At this step, you should already have quite a sturdy design
- It is now time to think about specifics
 - What kind of graphical style?
 - How will the team code the game?
 - Will the game have levels?
 - How will the progression be handled in the game?
 - How will game difficulty be set in the game?
 - What are the main production challenges ahead?
 - How long will it take to produce the game?
 - What will it cost to produce the game?

Conclude high concept definition

- At the end of this refinement phase, you should have a clear idea of how your game will work as a whole
- Chances are you won't be working on the proposal by yourself, so remember
 - Be ready to share and justify your choices
 - Start to draft paragraphs about your game
- It is now time to check if this all makes sense

Evaluate your high concept



- Take some distance from your high concept and look at the big picture
- Is it really **original**: ask people you trust
 - Does it get people excited?
- Is it **feasible**: ask profession experts
 - How long will it take to code it?
 - How many assets of what type will it require?
 - How much can I produce within budget?
 - How long will it take to tune and debug the game?
 - Do I have things in the game that the team can cut out in case there is a problem?



Evaluate your high concept



- Is it **marketable**: ask marketing and executives
 - Does it fit in the company's strategy?
 - Is there a clear way to sell it to customers?



- Is it **risky**: ask yourself and the team
 - Are there things that we have never done before, and how risky is it?
 - What specific challenges do we have ahead, and what is the risk to fail?
 - Do we have things in the game that we can cut out or simplify in case there is a problem?
 - Do we have partners that we have not worked with in the past?

Conclude high concept evaluation

- Organize formal and informal reviews of your draft
- Gather input
- Reframe your project
- Write conclusions

⇒ **ITERATE!**

Writing: the pyramid principle



A LETTER FROM A FRIEND (1/3)

Dear Shirley,


Remember last Saturday afternoon when I was playing in the park with my boyfriend and you came over, and he told me that when my back was turned, you kissed him?

And also, on Sunday when you came to my house and my Mom made you a tuna fish salad for lunch and you said: "Yech! That's the worst salad I ever ate!"?

And yesterday, when my cat brushed against your leg, you kicked her and threatened to sic your dog "Monster" on her? Well, for all of these reasons, I hate you, and I no longer want to be your friend.

Lucy

Writing: the pyramid principle




Dear Shirley,
I HATE you. Here are my reasons:
1. You stole my boyfriend.
2. You insulted my mother.
3. You scared my cat.

Main statement or "governing thought"

Reasons supporting the governing thought

Writing: the pyramid principle



Q: Why did Lucy write this letter to me?

A: Because

Q: Why

A: Because


Lucy hates me

I stole her boyfriend.

I insulted her mother.

I scared her cat.

Writing: Pyramid logic improves structure



```
graph TD; A[ ] --- B[ ]; B --- C[ ]; B --- D[ ]; B --- E[ ]; C --- F[ ]; C --- G[ ]; C --- H[ ]; D --- I[ ]; D --- J[ ]; D --- K[ ]; E --- L[ ]; E --- M[ ]; E --- N[ ]
```


Audience question -----> []

Main message -----> []


Key line -----> []

Support -----> []


Writing: Pyramid logic improves structure



Only one answer on top level

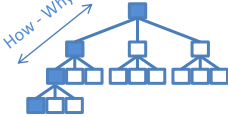


Ideas: Generate question in readers mind




Ideas: relate vertically

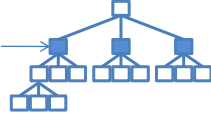
How - Why



Ideas: summary of ideas grouped below



Each grouping: same kind of idea, must be in logical order



Writing: the pyramid principle



Key Message	First find or state the key message before you plunge into details.
Questions	Ask questions before you give answers (even if it's only in your mind).
Pyramid	Envision the question-answering process to follow top-down a fictitious logical pyramid structure. This summary should be seen in your document summary.

Writing is rewriting!



- Try to put yourself in the shoes of someone reading your doc for the first time
 - If something does not sound right... Rewrite it!
- Rewrite
 - Reorganize your document
 - Use the right word
 - Use active voice and write in present
 - Remove verbs would, should, could
 - Remove ambiguity
 - Remove overcomplicated words
 - Rewrite in simpler / shorter ways
 - Remove useless repetition, comments, modifiers
 - Remove useless sentences, paragraphs

Rewriting examples



Original	Rewritten

Rewriting exercise



Original	Rewritten

Writing the proposal: structure



- A game proposal format can vary a lot, this is only a suggestion
 - Front page (illustration)
 - Summary
 - High Concept Sheet
 - Competition benchmark
 - Gameplay
 - Story
 - Aesthetics
 - Technology
 - Planning
 - Budget

Writing the proposal: structure



- Hands on exercise on MS Word!
 - Open MS Word
 - Create a new document
 - Set Header and footer
 - Build the proposal plan
 - Build a summary
 - Save and name the file correctly

Writing: The High Concept Sheet



- Little time will be spent reading your proposal
- Objective: Try to catch the attention of your reader upfront
- The concept sheet summarizes your project in a single page
 - Pitch
 - Unique selling points
 - Audience
 - License

Writing the pitch



- A 3-7 lines paragraph which summarizes your game and its most interesting features
 - This is the paragraph that could be written at the back of the box when your game is published
 - Try to use sales & convincing formulation and talk directly to the player
 - Try to avoid clichés and stereotypes
 - Emphasize ideas that deserve it, not bullshit
 - Put the best part in light
 - It doesn't have to be exhaustive, you have a whole document to back it up!
- This paragraph should get people interested and curious to learn more about your game



Writing the USPs

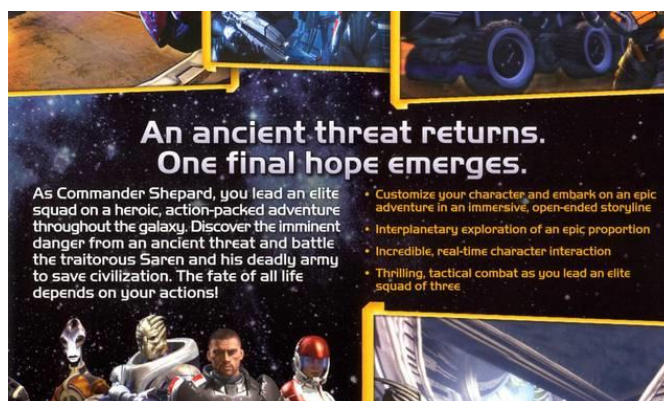


- USPs are most generally listed as bullet points
 - These are the points that will convince a hesitating player when they are reading the description at the back of your game box
 - Like in the pitch, be emphatic without being pretentious
 - Start with the most central and interesting feature
 - Try to add of scope if it is exceptional / makes sense
- This paragraph should get people reassured about
 - the main features of your game
 - the focus in your game

Writing the pitch & USPs



- Look at game boxes and video games web sites to see sample pitches



Writing the pitch



Writing the pitch



Jeux de jardins, jeux de vilains dans ce tout nouveau jeu du genre action-stratégie de PopCap !

Une armée de zombies sympathiques est sur le point d'envahir votre maison et vous n'avez, pour votre défense, qu'un arsenal de 49 plantes tueuses de zombies. Utilisez ces plantes pour éradiquer les 26 différents types de zombies en fertilisant avant qu'ils n'atteignent votre porte.

Chaque zombie possède une habilité spéciale, il vous faudra donc rester sur vos gardes et planter rapidement pour riposter. Mais soyez prudent, vous n'aurez qu'une quantité limitée de graines et de verdure... alors que vous combattez cette armée de morts marrants, des obstacles comme le soleil couchant, la brume grimpante et une piscine montent la barre d'un cran. Et avec 5 modes de jeu différents à creuser, le fun est toujours au rendez-vous !

Plus d'informations sur ce jeu

- Jouez à cinq modes de jeu : Aventure, mini-jeux, Puzzle, Survie et le mode sans stress Jardin Zen.
- Conquérez tous les 50 niveaux dans le mode Aventure-- à travers le jour, la nuit et la brume, dans une piscine et sur un toit.
- Combattez 26 différents types de zombies.
- Gagnez 49 plantes vivaces et collectionnez les pièces pour acheter un escargot, des bonus de puissance et plus encore !

Writing about audience and licence



- Describe which audience you are addressing to
- Explain briefly how focusing on the target audience impacts your game design and aesthetics
- If license choice is at origin of project
 - Describe how the license will be used
 - Describe what you need from licensor
- If not
 - List a few licenses which could suit the game, and why

Writing the proposal: pitch



- Hands on exercise on MS Word!
 - Write a draft of your High Concept sheet
 - Pitch
 - USPs
 - Audience and Licence

Writing about competition



- Select a few representative games from your benchmark
- For each game
 - Include a screenshot
 - Shortly describe how it works
 - List interesting features
 - List flaws/ things that could be improved
- Conclude the benchmark
 - Is there a market?
 - What are the best practice?
 - How will you differentiate your game?
- This part shows that you have understood the market and that you know what you are doing!

Writing the concept sheet



- Hands on exercise on MS Word!
 - Pick 1 reference game and write a paragraph about it
 - Screenshot
 - Description
 - Interesting features
 - Flaws/things to improve
 - Conclusion

Writing about gameplay & story



- If readers reach this point of your proposal, you probably got them interested with your pitch. They probably have questions in mind and will be curious to learn the specifics of your design.
- Now is the time to describe how you will deliver the player experience you promised in the pitch
- As this is the core of your proposal, chances are you will have a lot to tell, use the Pyramid principle to structure your explanation
- Write this part for clarity

Adding sketches



- Hands on exercise on MS Word!
 - Create a sketch in MS word to explain something in your game

Writing about aesthetics



- What is the mood and style of your game? Include graphics!
 - Mood board with reference graphics
 - Concept art
 - Previous games references
- Choose a strong guideline that
 - Serves your core gameplay
 - Is consistent with your platform
- Describe the style and the universe, how will you make everything consistent?
- Include information on sound and music

Writing about technology



- Which platform are your targeting?
- Will you use middleware?
- Common technology challenges that may be discussed
 - Language, API
 - 3D/Physics engine
 - AI
 - Networking
 - Sound
 - Interface
 - Controllers
- Don't write this by yourself, include tech experts in this discussion

Planning and budget



- This part explains
 - how the game will be produced
 - what will be delivered when
 - who will do what and when
- We will discuss this in the game production management part

Proposal: final piece of advice



- A lot of effort will be spent based on the initial direction, if this direction is wrong there is little chance the team will be able to overcome the early mistake
 - Take time to think about your idea, sleep over it
 - Evaluate different options, not just a single one
 - Make sure you are really informed on the subject
 - Listen to points of view from others
 - **Iterate**, refine and scrap ideas!
- Common mistake: get too excited on your idea and skip/not take enough time in this phase

Assignment: Write the proposal for your Flash project

- You have already started working on your project in the brainstorming sessions
- Follow the procedure described and produce a game proposal
 - Follow the plan I suggested
 - Discuss all the parts
 - Write the document in english
- Delivery deadline: 09/12/2009

Writing the proposal



- Hands on exercise on MS Word!
- Start writing your flash project's proposal

4. Game production management

Objectives:

- Understand how a game project is managed
- Understand design interaction with project management
- Apply project management basics on a sample project

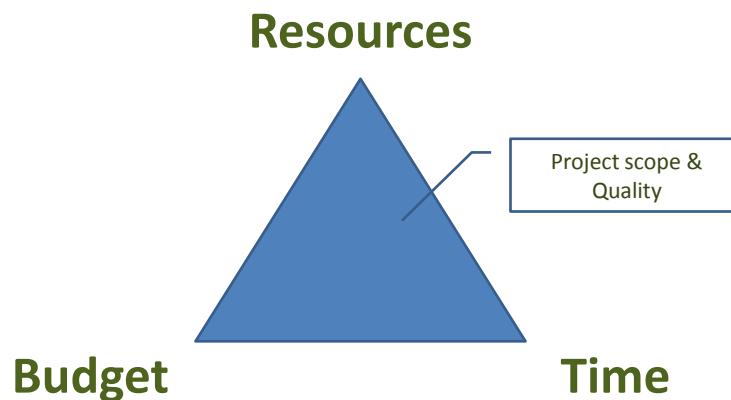
Summary

- Importance of project management
- Resources, Time, Budget
- Defining tasks
- Estimating
- Planning
- Delivering

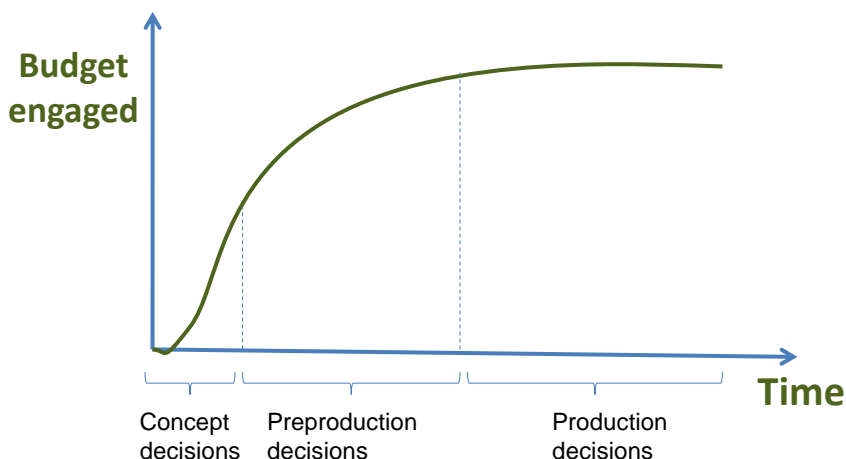
Importance of project management

- Classical hierarchy only based structures are not sufficient to deliver games
 - Game production is different each time
 - There are always bad surprises
 - A strong force must drive the team to get the project out
- Project management
 - Helps the team define who will do what and when
 - Keeps the budget on track
 - Makes sure the team delivers on time
 - Makes sure appropriate level of quality is delivered
 - Looks ahead to foresee problems
 - Manages chaos!

The magic triangle



Expenses get engaged early in the project



The Game Producer's role



- The producer's role is to keep the project on track so it is delivered on time and on budget
 - Delays may cost a lot of money, or even ruin a market
 - Budgeting ensures the company and its partner can make money with the game
- In a game project scope and resources change all the time, the producer must readjust to keep the project on track

Production management process

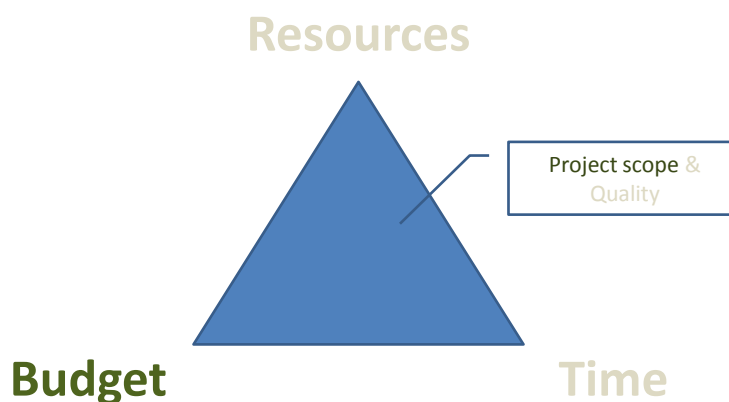


Define Scope



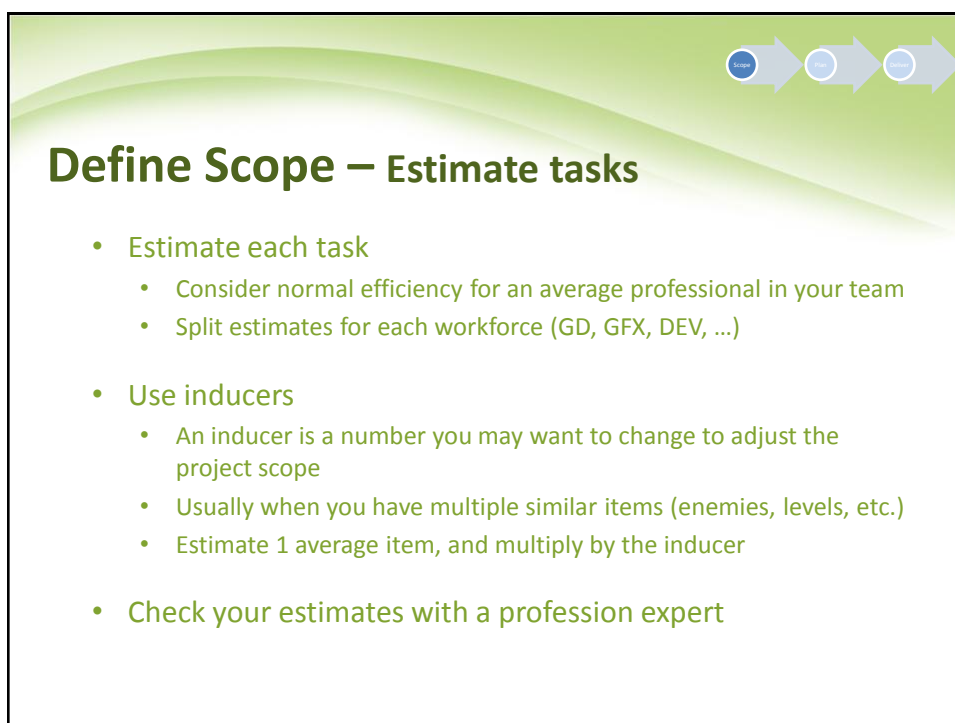
- Define what you will take with you because there's only so much you can place in the bag
 - You're taking underwear, pants, shirts, sweaters
 - How much space do they each take?
 - How many of them does it make sense to take with you?
 - Will you take on your swimsuit or the hot overcoat?
 - Is there really any room for this extra pair of shoes that you like?
- Same with a project, just replace clothes with features!

The magic triangle



Define Scope – Work breakdown structure

- The Work Breakdown Structure (WBS) is the hierarchy of all tasks required to produce the game
- To define the WBS, cut the tasks into its components and refine until tasks are good enough
 - Each task should take only a few days
 - The task should be clear for the team member who will undertake it
- Check that you haven't forgotten anything



Scope


Task

Estimate

Define Scope – Estimate tasks

- Parkinson’s Law: Work always expands to take the time allowed
 - When people have time remaining, they tend to refine what they have done
 - If they turn work in early, they may be expected to do the same work faster the next time

⇒ You should be careful not to overestimate tasks
- Track your hypotheses
 - What is the estimate accuracy
 - How was the estimate prepared
 - What limitations does it contain
- To improve the precision of your estimates, practice and get feedback at the end of your projects



- Estimate production effort
- Document hypotheses
- Review with team members

Task	Description	Nb of	GD	GFX	DEV	MGT
Interface	Main menu interface			5	10	3
Spaceships	Player’s spaceship	5		3	3	1
	...					

Scope

Plan

Execute

Define Scope – Risks

- List the main risks in your project
 - Everything that can turn bad and has a high probability to happen
- For each risk, evaluate probability and consequences
- Find a way to mitigate
 - Safety rope
 - Contingency: Plan B
 - Replace task with something safer
- Add slack for risk management



Risk management

Define Scope – Hands On Exercise



- List risks and mitigate

Risk	Impact	Probability	Mitigation
Licensor does not like story	High	High	Get story draft to Licensor asap. Include licensor ideas.
	...		

Scope

Plan

Deliver

Define Scope – Adjust

- Is it fitting in the bag?
 - Estimate rapidly your budget with a simple formula (average manday price X num of days [ie 500€])
 - Is the client willing to invest this budget for this game?
 - Do we have this much money to invest?
- Iterate: adjust the design and start over
 - Adjust inducers
 - Cut features
 - Review estimates with new quality expectation



Production management process

Define scope

- WBS
- Estimates
- Risks
- Adjust design

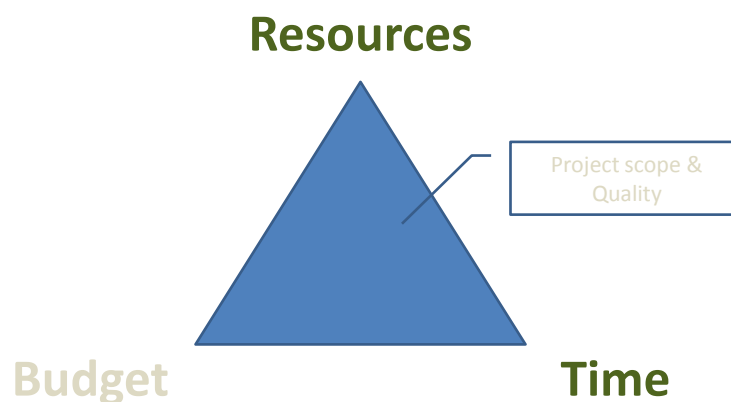
Plan

- Staffing plan
- Planning
- Milestones
- Budget

Deliver

- Set and follow objectives
- Update planning
- Adjust

The magic triangle




Plan – Staffing plan

- Use your deadline or preferred release date to estimate how many people should be working on the project
 - For each workforce

$$\text{Manpower required} = \text{Mandays required} / (15 \text{ days} * \text{Prod_month})$$



This estimates that your people will be used on average 15 days per month on your project

Production length in month



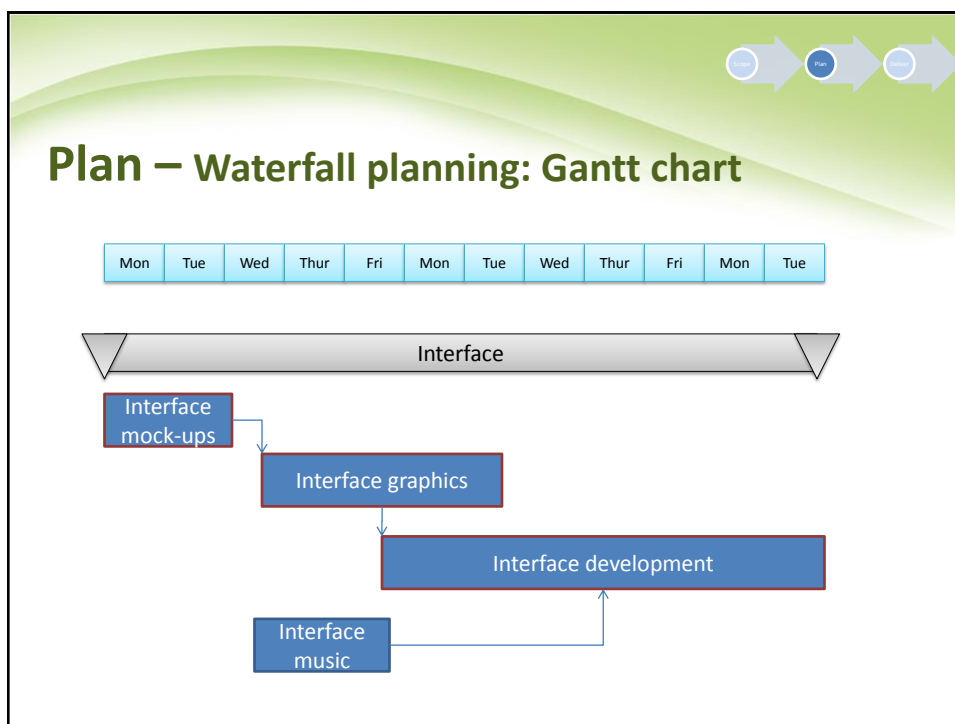
Plan – Staffing plan

- The formula gives you an estimate
 - Only a starting point for scheduling
- Building the right team requires also attention to other considerations
 - Who will work together best
 - What key skills are necessary for success
 - How can I make my resources improve
 - Cost efficiency
 - ...



Plan – Waterfall planning: Tasks precedence


- Using your WBS structure
- Define logical precedence between tasks
- Put them one after another according to this order
- Arrange the tasks to take into account availability of your resources
 - Software packages like MS project can optimize this assignment for you automatically through “leveling”
- The line of tasks which takes longest using this planning is called **critical path**
 - moving its tasks has direct impact on project delivery
- Snapshot the baseline against which the real planning will be compared




Plan – Waterfall planning: Pitfalls

- Waterfall project management is not iterative
- Project rarely unfold as planned in the details
 - This kind of planning relies heavily on task definitions, estimates and precedence, which are all difficult to get right
 - A small change can make the planning completely irrelevant
 - Reviewing the planning is time consuming
- In other words, this planning approach is not very **Agile**


A detailed illustration of an elephant is positioned on the right side of the slide, symbolizing the large, unwieldy nature of waterfall planning.




Plan – SCRUM



- SCRUM is an **Agile** project management method
 - Cut your project into short 1 month sprints, with a clear deliverable at the end
 - List tasks in a backlog and set priorities
 - Tasks still need to be estimated and reported on
 - A daily meeting lets everyone share advancement and issues
 - Build a burn down chart
- Each team member participates proactively
 - They take tasks as it makes most sense and advance everything they can
 - They share advancement and issues
 - They feel empowered



Plan – Milestones



- Milestones are delivery objectives set during planning
 - Specific content
 - Specific date
 - Usually milestone acceptance triggers a payment
- Whatever project management approach you use, Milestones are essential
 - They set objectives for the team as a whole
 - They are set precisely upfront so their content is not negotiable
 - They let you know if your project is on track or not



Plan – Budget

- Setting the staffing, planning and milestones straight may require a few iterations
- Once it looks good, you are ready to build your real project budget
 - Calculate the cost per workforce:
 - $\text{manday price} \times \text{nb of mandays} + 10\% \text{ management (AD, CTO)}$
 - Sum it all up + 10% project management
 - Add fixed costs (middleware, etc)
- Build a milestone payment schedule

Define Scope – Hands On Exercise



- Build a waterfall planning for your project
 - MS Project or MS Excel
- Define your critical path
 - Highlight tasks in your critical path
- Define the milestones
 - Define dates, objective and milestone content
- Build your project budget

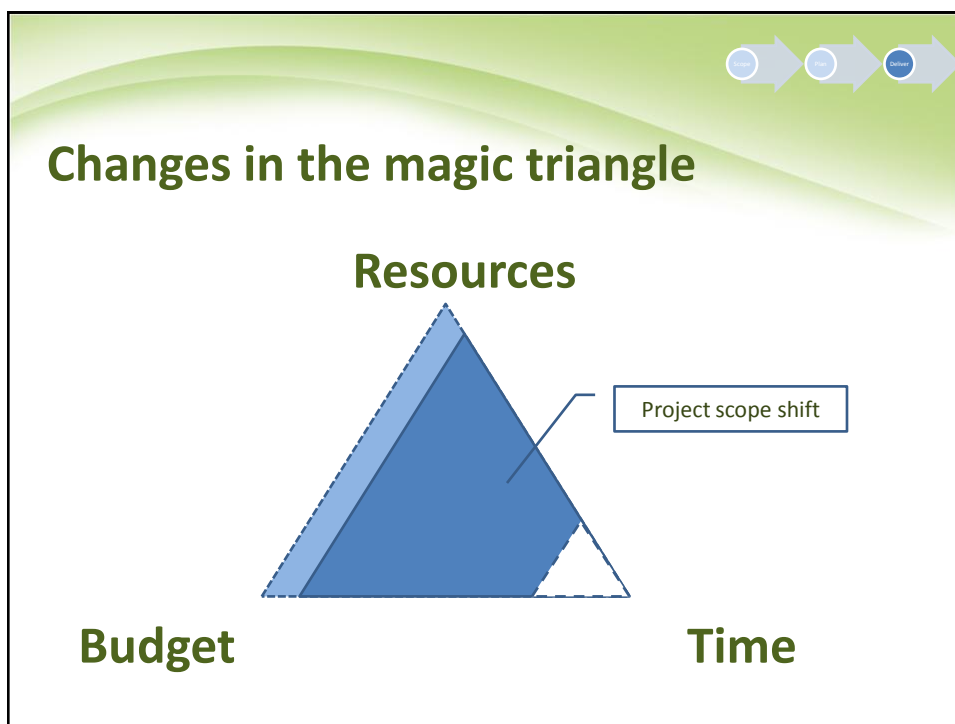
Production management process



Deliver



- Now that you have planned everything, expect bad surprises!
 - Project never unfold as planned
- You will need to adjust for thousands of small changes
 - Client demands
 - Forgotten tasks
 - Incorrect estimates
 - Resources unavailability
 - ...



The diagram illustrates the 'Magic Triangle' of project management. It features a large blue triangle with a dashed outline. The vertices are labeled: 'Resources' at the top, 'Budget' at the bottom left, and 'Time' at the bottom right. A callout box labeled 'Project scope shift' points to the right side of the triangle. In the top right corner, there is a sequence of three arrows: a light blue arrow pointing right, a light blue arrow pointing right, and a dark blue arrow pointing right.

Changes in the magic triangle

- **The impossible deadline**
 - For various reasons, the project is getting behind and you won't be able to deliver on time
- **Possible solutions**
 - Increase resources (more people, overtime)
 - Cut on features or quality
 - Reschedule project
- **Common mistake**
 - Think that you can only postpone the deadline
 - Realize too late that you won't deliver on time

A photograph of a calendar page. A red box is drawn around the date '16', which is labeled 'FINAL DEADLINE!' in bold, black, capital letters. The calendar shows dates from 16 to 31. A pencil is visible in the bottom left corner, pointing towards the red box.

Changes in the magic triangle

- **You have “all the time you want”**
 - The client has - generously - postponed your deadline
- **Impacts**
 - Rarely makes the project cheaper
 - Dangerous, some clients or team members think scope & quality are defined by time only
- **Common mistake**
 - Keep the team longer on the project (budget and resources increase) without renegotiating
 - Think postponing deadline is not important when the project is not near completion

Changes in the magic triangle

- **Reduce project budget**
 - The client/boss finds that the project is too expensive, and requests that you reduce its budget
- **Solutions**
 - Cut on features or quality
 - Work with cheaper resources
- **Common mistake**
 - Because team members are committed to the previous project scope/quality they want to make the same thing for cheaper



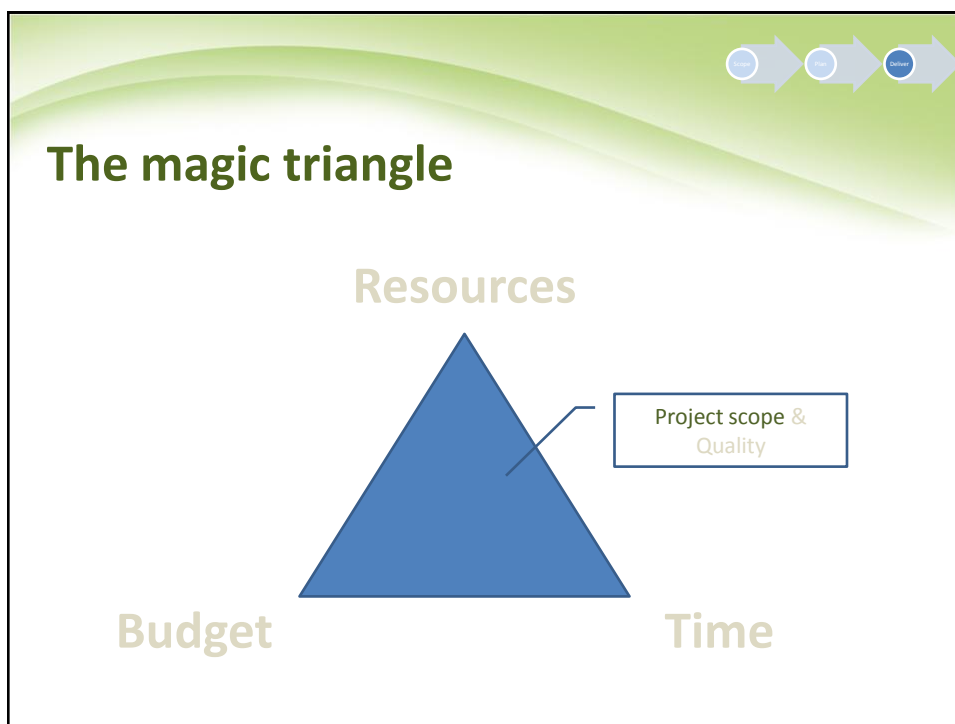


Changes in the magic triangle

- **Inefficient resource**
 - One of your team members produces poor quality deliverables, or does not turn in work on time
- **Solutions**
 - Check root causes of inefficiency
 - Make resource more efficient
 - Review staffing
- **Common mistake**
 - Not checking team member's work before the deadline
 - Believe people when they say "Only 1 more day" without checking what's already there
 - Not impact schedule / staffing plan

Changes in the magic triangle

- **Key resource gone missing**
 - One of your key resources leaves the project
- **Solutions**
 - Should be handled upfront with risk mitigation
 - Review your staffing plan
 - Impact time and budget
- **Common mistake**
 - Putting too much confidence in a single key team member
 - Trying to cope with resources at hand
 - Not handling this event as a top priority



The diagram shows a list of tips for managing scope. It features a blue equilateral triangle with the word 'Resources' at the top vertex, 'Budget' at the bottom-left vertex, and 'Time' at the bottom-right vertex. A line from the center of the triangle points to a box labeled 'Project scope & Quality'. In the top right corner, there is a sequence of three arrows: a light blue arrow with a circle containing 'Design', a light blue arrow with a circle containing 'Dev', and a dark blue arrow with a circle containing 'Deploy'.

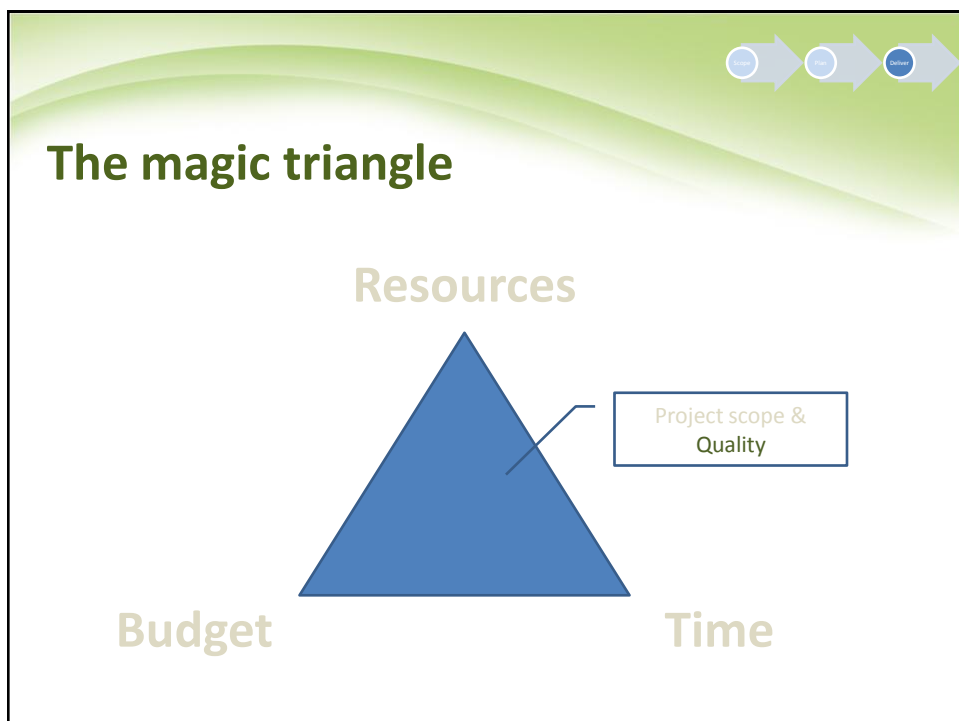
Managing Scope - Tips

- Reframe in case of **feature creep**
 - Unplanned features are developed or better quality than what was planned
 - Your clients will most probably try to get as much as possible for their money
 - They may use influence tricks to make you produce more (build on your dreams, build on your commitment, play good cop/bad cop, etc.)
 - Your team members may also have their own agendas
 - They really want to use this great new tool...



Managing Scope - Tips

- Reframe in case of **feature drop**
 - Planned features are not developed or lower quality than what was planned
 - Most generally happens when team members
 - Are not sufficiently committed to the project
 - Don't have enough professionalism (they care more about their own pleasure at work)
 - Most generally happens when there is not enough external pressure (client, creative director) to make a good product





Managing quality

- Code: Testing and fixing is a difficult phase, but quite clear and mechanical
- Design and graphics: Managing quality is probably the most difficult task for a producer
 - Expectations are very hard to define
 - Result is very hard to evaluate and depends a lot on tastes



Managing quality - Tips

- Get stakeholders approval of level of quality as soon as possible in the project
 - Don't leave level of quality negotiations for the end of the project
 - When getting this approval, don't submit deliverables of better quality than what is right for the project
- Leave some features optional in your proposal to keep negotiation ammunition
- Do not rely too much on your own tastes
 - Take expert advice
 - Sample various people tastes

Post Mortem

- The game industry has developed a tradition for Post Mortems, an occasion to learn from mistakes and share this experience
- Describe what happened in your project
- Analyze what went right and should be reproduced in future project
- Analyze what went wrong and how you would go about to correct it in future projects
- Read post mortems on Gamasutra



5. Writing efficient game design documents

Objectives:

- Learn how to build a structured and efficient set of design documents

Summary

- Objectives of the GDD
- Screen Plan
- Gameplay mechanics
- Controls & interface
- Scenario
- Game elements
- Writing style

Objectives of the GDD

- The GDD is the project bible used as a reference by every person working on the project
 - People who produce assets
 - People who develop the game
- The GDD should be
 - Perfectly clear
 - Practical
 - Internally consistent
 - Exhaustive
 - Up to date



Activity: Learn by linking

- The class is divided in 2 groups
- You are given a list of words
- You have 2 minutes to memorize as many words in the list as possible.
- Place the sheet of paper face down
- You have 2 minutes to write as many word as you can remember
- Check your answers and count the number of words you got right

Activity: Learn by linking

- Try to memorize as many words as possible in the following list

Dog	Gas	Wood	Pants
Animals	Silk	Nails	Coal
Oil	Cotton	Gun	Cat
Table	Cloth	Socks	Fuels
Wool	Baseball	Red	Hammer
Cow	Knife	Spoon	Basketball
Fruit	Chair	Shirt	Bomb
Pan	Colour	Fork	Yellow
Green	Screwdriver	Bed	Profession
Sofa	Shoes	Tennis	Dentist
Doctor	Teacher	Clothing	Football
Furniture	Blue	Lawyer	Rifle
Horse	Utensils	Pear	Apple
Rayon	Orange	Banana	Sport
Saw	Tools	Dagger	Weapons

Activity: Learn by linking

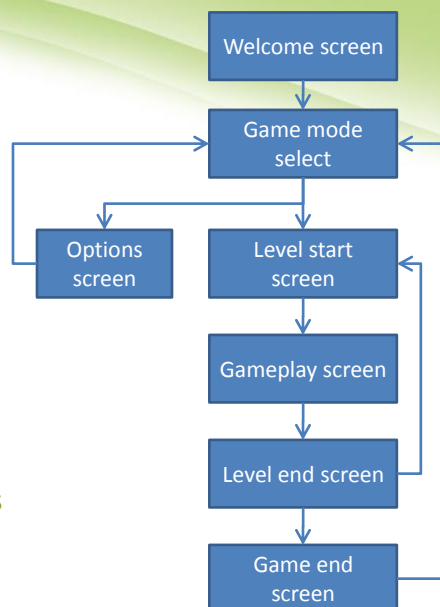
Animals	Cloths	Weapons	Fuels
Dog	Cotton	Dagger	Oil
Cat	Wool	Gun	Gas
Horse	Silk	Rifle	Coal
Cow	Rayon	Bomb	Wood
Fruits	Colours	Tools	Professions
Apple	Blue	Hammer	Doctor
Orange	Red	Saw	Lawyer
Pear	Green	Nails	Teacher
Banana	Yellow	Screwdriver	Dentist
Furniture	Utensils	Clothing	Sports
Chair	Knife	Lawyer	Football
Table	Spoon	Pear	Baseball
Bed	Fork	Banana	Basketball
Sofa	Pan	Dagger	Tennis

Activity: Learn by linking

- Let’s check scores
- Swap your sheet with someone in the other group
- See why the other team got better/lower scores
- What do you conclude

Screenplan

- One good way to structure a game is to build a diagram of all its screens: the screenplan
- Include a mock-up for each screen describing its elements



Gameplay mechanics

- Describes your core gameplay system
 - The main components in your game
 - Their properties
 - Their behaviors
 - Their relationships
- Try to present things as they would be introduced in your game tutorials
- Don't write as you think, structure in chapters and present in a logical and progressive way



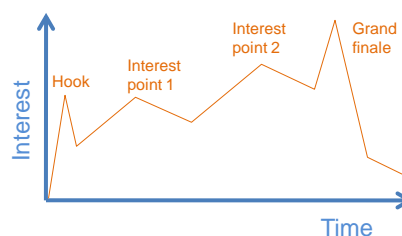
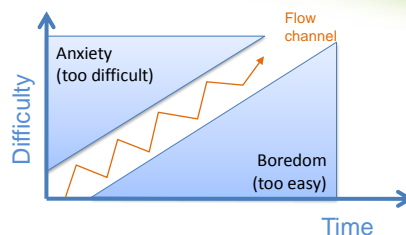
Controls & Interface

- Very important: this is how your player will communicate with your game
- What will the player control in the game and how?
 - How can you make it interesting and immersive?
- How will your game communicate
 - What are the important events in your game
 - How will the game communicate these events to the player in an intuitive way?
- Include simple mock-ups in the GDD



Game progression

- To keep your player excited about your project you need to control
 - Flow of Difficulty
- Interest curve



Scenario

- An overview of the story helps understand what the game is trying to accomplish
- Include character bios
- Do not include dialogs, full description of missions/quests, these are assets, not the system and should be handled somewhere else



Activity: What is this procedure?

- The procedure is actually quite simple. First you arrange things into different groups. Of course, one pile may be sufficient depending on how much there is to do. If you have to go somewhere else due to lack of facilities that is the next step, otherwise you are pretty well set. It is important not to overdo things. That is, it is better to do too few things at once than too many. In the short run this may not seem important but complication can easily arise. A mistake can be expensive as well. At first the procedure will seem complicated. Soon, however, it will become just another facet of life. It is difficult to foresee any end to the necessity for this task in the immediate future, but then one can never tell. After the procedure is completed, one arranges the materials into different groups again. Then they can be put into their appropriate places. Eventually they will be used once more and the whole cycle will have to be repeated. However, this is part of life.

Activity: the procedure

- With the words “clothes” and “washing” does the procedure make more sense?
- What does this tell you about
 1. Putting things into context first
 2. Using the right words and being specific

Writing style

- Most advices discussed for the proposal still apply
 - Build & challenge a pyramid to structure your document correctly
 - Write to explain, not to impress
 - Simple
 - Concise
 - Proof read and rewrite
 - Fully describe system instead of saying “just like the mechanic found in XXX”



6. Career management

Objective:

- understand how to be successful in the games industry

Summary

- How to get in the industry
- How to get to the job you want
- Why do some people succeed and other fail
- Q&A

How to get in the industry

- It is hard to break into the industry
 - A lot of people want to design games
 - Game companies receive a lot of demands
- The first step is to get started
 - Aim at a job that fits your skills set
 - Create a book that will seduce a recruiter for this specific job
 - Target a position where there is a need on the market



How to get to the job you want

- You won't get the perfect job right away it's a matter of
 - Market needs
 - Quality of your profile & references
 - Luck
- Plan your career
- Give yourself the means to go where you want to go
 - Communicate your wishes
 - Build your skills and recognition



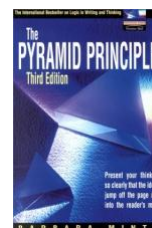
Why do some people succeed and other fail?

- Understand that, as a beginner, you have a lot to learn
 - Listen and take advice
 - Take orders and find a way to do it cooperatively
- Be positive and efficient in every possible way
 - Turn lead into gold
 - Do NOT turn gold into lead
- Understand that if you are given gold
 - It is easier to screw up
 - It is harder to outperform
- Build trust by working hard and turning in quality deliverables
- Promote your work



Suggested readings

- **The art of game design: a book of lenses**
– Jesse Schell
- **21st Century game design** – Chris Bateman/Richard Boon
- **The pyramid principle** – Barbara Minto



Final Deliverables

- Full flash game proposal, including
 - Concept sheet
 - Proposal details
 - Planning
 - Budget
- English please!
- Deadline: 28/12/2009 20h00



Q&A

- Main takeaways & Course review
- Do you have any question?
- Let's keep in touch!
maxime@montasheri.com
- Please take a few minutes to complete the anonymous survey
 - This will help me enhance this course

