

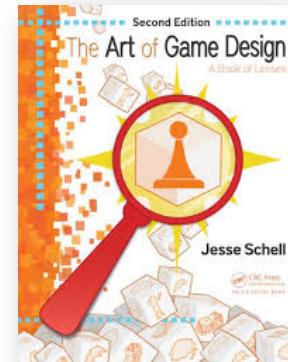
Game Design Document

Videogame Design and Programming

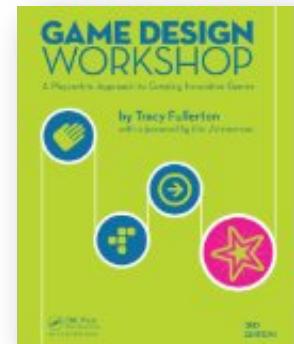
Pierluca Lanzi

Readings

- Jesse Schell. *The Art of Game Design* (2nd Edition) Morgan Kaufmann 2015



- Tracy Fullerton. *Game Design Workshop*, Third Edition. Morgan Kaufmann 2014
Chapter 2.



What is the Game Design Document?

Game development is inherently collaborative!

Communicating the overall vision of the game to all the team member is essential.

The most effective way is to write down the vision as well as a detailed plan for executing it

what is the game design document?

it is like the blueprints for a building

game documents have two purposes
memory and communication

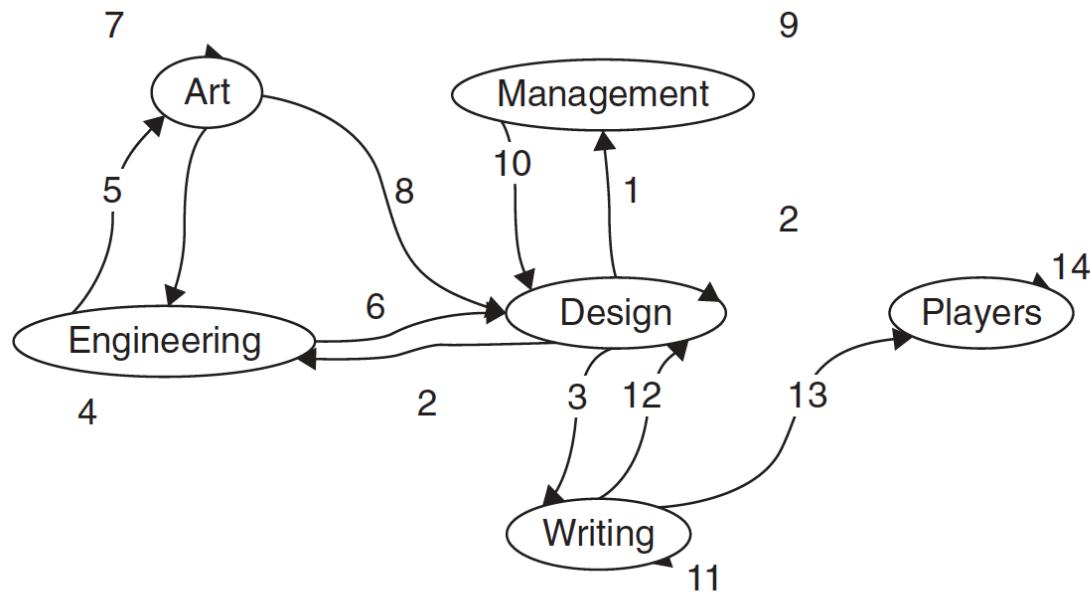
Design Document as Memory

- A game design has thousands of important decisions that define how the game works and why
- When ideas are fresh, people feel like they are impossible to forget, but it is very easy to forget even the most fundamental decisions and solutions
- Recording all the design decisions in your design document will save you the trouble of having to solve the same problems all over again

Design Document for Communication

- Design decisions must be communicated to many people
- Such communication is never one-way but it is more a dialog
- In fact, as soon as a decision is put on paper, someone will find a problem with it, or come up with a way to make it better
- The design document can get more minds on the design faster to more quickly find and fix weaknesses in the game design
- The design document is also used to solve possible disputes about how/who/when things should be done

Types of Design Documents



Types of Design Documents (Design)

- **Game Design Overview**
 - High-level brief document (might only be a few pages) written primarily for management, explains what this game is, and who it is for
 - Useful for the whole team to get a sense of the big picture of the game
- **Detailed Design Document**
 - Describes all the game mechanics and interfaces in great detail
 - Help the designers remember all the little detailed ideas and to help communicate those ideas to the engineers who have to code them, and the artists who need to make them look nice
- **Story Overview**
 - Describes the dialog and narration of the game

Types of Design Documents (Engineering)

- **Technical Design Document**
 - High-level brief document (might only be a few pages) written primarily for management, explains what this game is, and who it is for
 - Useful for the whole team to get a sense of the big picture of the game
- **Pipeline Overview**
 - Brief document by the engineers for the art team describing the do's and don'ts
- **System Limitation**
 - Explicit what limits should not be crossed, e.g., number of polygons on the screen at once, number of simultaneous explosions on screen at once, drawcalls, etc.
- **Art Bible**
 - A document that provides the guidelines to keep the game art consistent when more than one artist work on the project
- **Concept Art Overview**
 - A collection of images that show how they will look and feel in the context of the game design put together by the art team with the design team

Types of Design Documents (Management)

- **Game Budget**
 - Prospect of the cost required to develop the game
 - Possibly, the first document created, since it is used to help secure fundings
- **Project Schedule**
 - Lists all the tasks that need to be accomplished, how long each will take, when each task must be completed, and who will do them
 - Probably, the most frequently updated document of the project

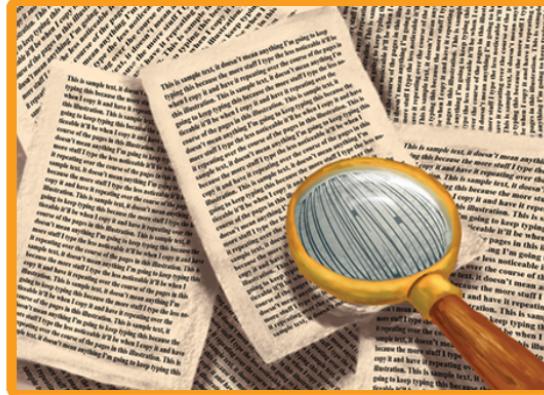
Types of Design Documents (Writing)

- **Story Bible**
 - Lays down the law about what is and is not possible in the story world
 - It make it easier for everyone on the team to contribute story ideas, within the technical limits of the underlying engine/technology
- **Script**
 - Their dialogs of NPCs and other story scripts
- **Game Tutorial and Manual**
 - The text that goes into in-game tutorials, Web pages, and printed manuals

102



The Lens of Documentation



Illustrated by Nick Daniel

To ensure you are writing the documents you need, and skipping the ones you don't, ask yourself these questions:

- What do we need to remember while making this game?
- What needs to be communicated while making this game?



The Game Design Document

- Describes the overall concept of the game, target audience, gameplay, interfaces, controls, characters, levels, media assets, etc. In short, everything that teams need to know (and has agreed) about the design
- Most of the developers and publishers today would never go into production without a detailed design document
- It is a living document, updated throughout production.
- Without the design document, the team members might interpret what they know about the game in their own unique ways
- Game developers tend to be visual people so supplementing the document with lots of visuals is generally a good thing

The Game Design Document

- Its objective is communication, developers should do whatever it takes to accomplish that goal
- Writing the document provides a process for establishing communication and serves as a touchstone for the entire team
- It is not a substitute for team meetings and in-person communication

Design History

- A design document is a continuously changing reference tool
- Alert team mates about any significant modifications or updates
- The design history contains a section for every major change made
- When using a wiki, this section will be replaced by the editing history feature of the software

The magic template does not exist!

Contents of a Design Documents

- There is no standard format for documenting design.
- In general, the contents of a game design document contain
 - Overview and vision statement
 - Audience, platform, and marketing
 - Gameplay
 - Characters (if applicable)
 - Story (if applicable)
 - World (if applicable)
 - Media list
- The design document can also include technical details which might also be articulated in a separate document, the technical specification

Examples of game design documents

<http://digitalworlds.wetpaint.com/page/Example+Blank+Design+Document>

http://www.gamasutra.com/view/feature/3384/the_anatomy_of_a_design_document_.php

When writing a design document, don't get distracted!

Don't forget its ultimate goal:
to communicate your game design

to the production team, the publisher, the marketing team and
anyone else involved in the game.

Think about it as a living document
which needs to be modular

It must be also easier to update/manage
as it grows in size and complexity.

Vision Statement

- It is where the vision of the game is stated. Typically, 500 words long. Try to capture the essence of your game and convey this to the reader in as compelling and accurate a way as possible.
- Game logline
 - In one sentence, describe your game
- Gameplay synopsis
 - Describe how your game plays and what the user experiences. Try to keep it concise—no more than a couple of pages. You might want to reference some or all of the following topics:
 - Uniqueness: What makes your game unique?
 - Mechanics: How does the game function? What is the core play mechanic?
 - Setting: What is the setting for your game?
 - Look and feel: Give a summary of the look and feel of the game.

Audience, Platform, and Marketing

- Target audience: Who will buy your game? Describe the demographic you are targeting, including age, gender, and geographic locations.
- Platform: What platform or platforms will your game run on? Why did you choose these platforms?
- System requirements: might limit your audience, especially on the PC, where the hardware varies widely. Describe what is required to play the game and why those choices were made.
- Top performers: List other top-selling games in the same market. Provide sales figures, release dates, information on sequels and platforms, as well as brief descriptions of each title.
- Feature comparison: Compare your game to the competition. Why would a consumer purchase your game over the others?
- Sales expectations: Provide an estimate of sales over the first year broken down by quarter. How many units will be sold globally, as well as within key markets, like the United States, England, Japan, etc.?

Audience, Platform, and Marketing

- Target audience: Who will buy your game? Describe the demographic you are targeting, including age, gender, and geographic locations.
- Platform: What platform or platforms will your game run on? Why did you choose these platforms?
- System requirements: might limit your audience, especially on the PC, where the hardware varies widely. Describe what is required to play the game and why those choices were made.
- Top performers: List other top-selling games in the same market. Provide sales figures, release dates, information on sequels and platforms, as well as brief descriptions of each title.
- Feature comparison: Compare your game to the competition. Why would a consumer purchase your game over the others?
- Sales expectations: Provide an estimate of sales over the first year broken down by quarter. How many units will be sold globally, as well as within key markets, like the United States, England, Japan, etc.?

Legal Analysis

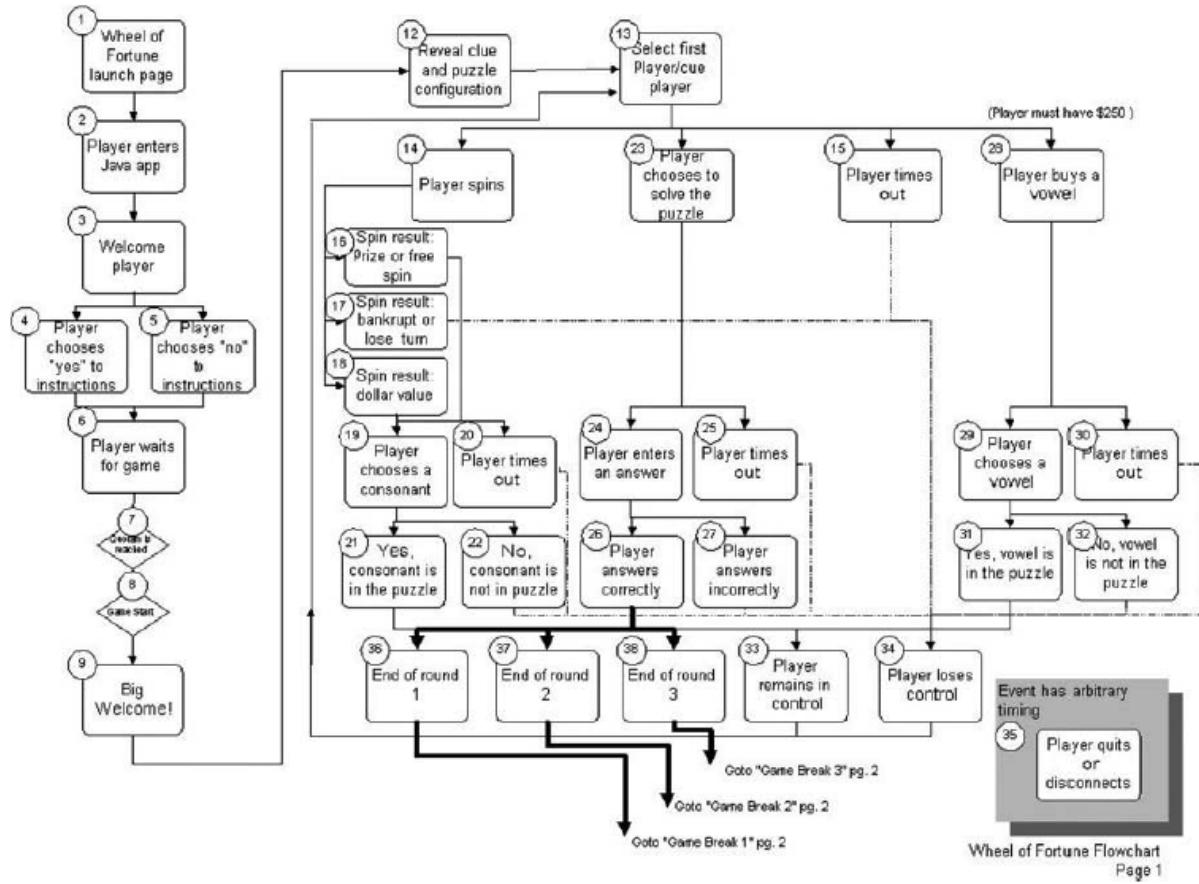
- Discusses the legal and financial obligations regarding copyrights, trademarks, contracts and licensing agreements

Gameplay

- Overview: describes the core gameplay
- Gameplay description: tells how the game functions
- Controls
 - Interfaces: wireframes and descriptions of how each interface functions
 - Rules: if there is a prototype the description of the rules is much easier.
 - Scoring/winning conditions
- Modes and other features
- Levels: the design of each level should be laid out here.
- Flowchart: create a flowchart showing all the areas and screens needed
- Editor

Game Characters

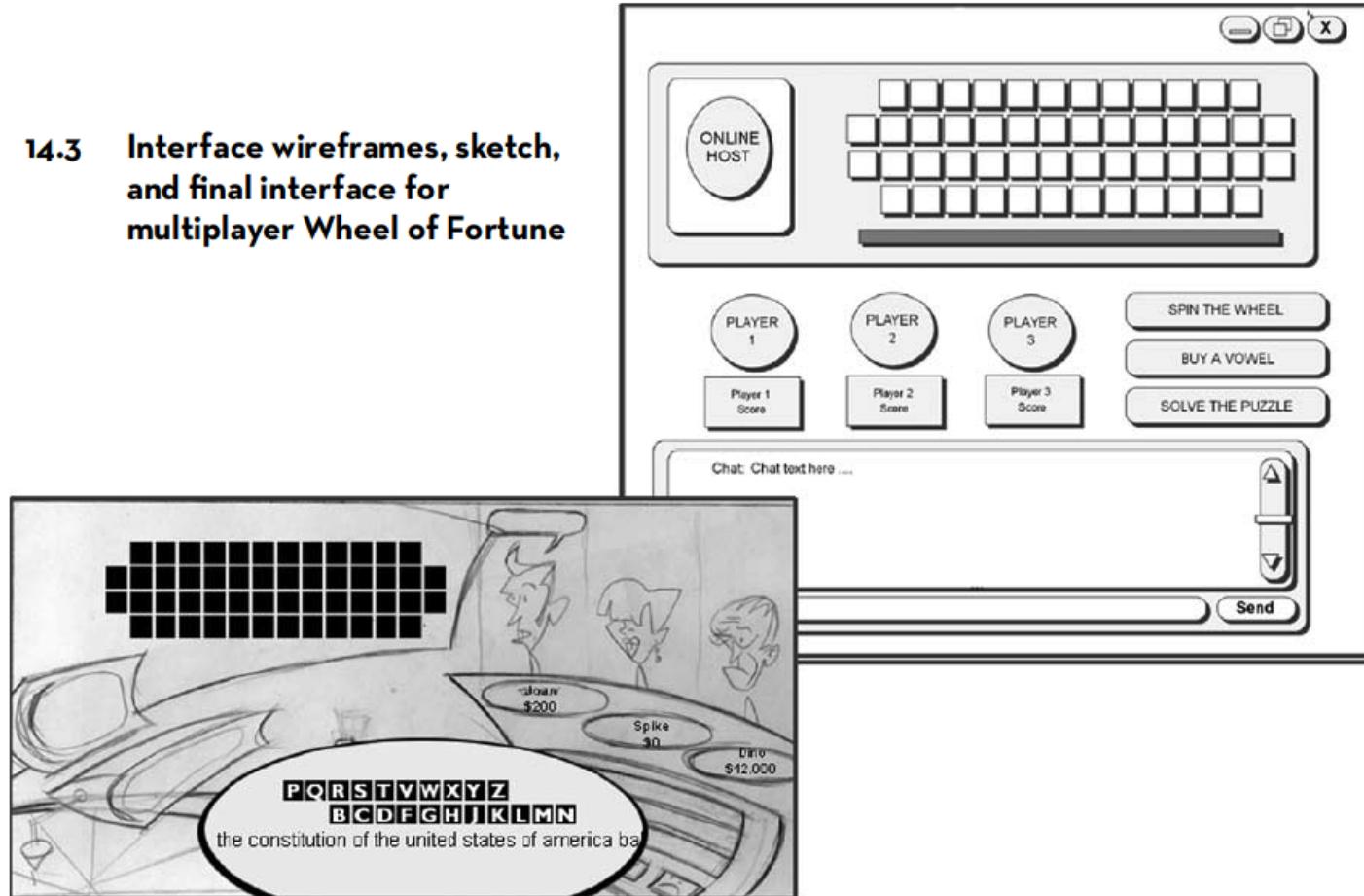
- Character design: describe any game characters and their attributes
- Types: describe all the types of PCs and NPCs



14.2 Flowchart for multiplayer Wheel of Fortune

Wheel of Fortune Flowchart
Page 1

14.3 Interface wireframes, sketch, and final interface for multiplayer Wheel of Fortune



Story

- Synopsis: if the game includes a story, summarize it here. Keep it down to one or two paragraphs.
- Complete story: outline the entire story in a way that mirrors the gameplay. Do not just tell your story, but structure it so that it unfolds as the game progresses.
- Backstory: describe any important elements of your story that do not tie directly into the gameplay.
- Narrative devices: describe the various ways in which you plan to reveal the story. What are the devices you plan to use to tell the story?
- Subplots: Because games are not linear like books and movies, there might be numerous smaller stories interwoven into the main story. Describe each subplots and explain how they tie into the gameplay and the master plot.

The Game World

- If the game involves the creation of a world, you need to go into detail on all aspects of that world such as
 - Overview
 - Key locations
 - Travel
 - Mapping
 - Scale
 - Physical objects
 - Weather conditions
 - Day and night
 - Time
 - Physics
 - Society/culture

Media List

- List all media that will be required.
- The list will depend on the game specifics
- Interface assets
- Environments
- Characters
- Animation
- Music and sound effects

Technical Spec

- Technical analysis
 - New technology
 - Major software development tasks
 - Risks
 - Alternatives
 - Estimated resources required
- Development platform and tools
- Delivery
- Game Engine
 - Technical Specs
 - Design
 - Collision Detection
- Interface technical specs
- Controls' technical specs
- Lighting models
- Rendering system
 - Technical specs
 - 2D/3D rendering
 - Camera
- Internet/network spec
- System parameters
 - Max players, servers, connectivity, websites,
 - ...
- Other (Help, manual, setup, etc.)

Writing Your Design Document

- Before writing the design document, quite an amount of time should be spent thinking about the gameplay
- The best way to do this is to build a physical or software prototype and play test it, improving and expanding the design until a solid foundation is reached
- Only after several iteration of prototyping, the design document can start
- Use flowcharts and wireframes to explain the game areas and features
- By working through your concept from prototype to flowchart to wireframes to documentation, the design document is actually easy to write

What about the course project?

By November 9, your team is required to write an initial draft (the version zero) of your game design document

The draft should contain all the important element/documents discussed in this lecture that are applicable to your project.

The draft must be quite short, around 10 pages, and its objective is to assess that your team has agreed on a gameplay vision

Please create a specific section titled “Design Values” embodying the experience you want your players to have

You must use a google doc and invite pierluca.lanzi@gmail.com

The GDD must be kept updated! ☺

At the end, it will be the game bible!

It will be submitted with the project
and it will be published online.

Game Design Logs by Daniel Cook

Excellent entry in Dan's Lost Garden blog provides an excellent solution to the problem of stale design documents.

One Page Designs by Stone Librande.

A talk that changed the game industry and became an industry standard overnight.

Video is available at

<http://www.gdcvault.com/play/1012356/One-Page>

Slides from the presentation are available at

<http://www.stonetronix.com/gdc-2010/>

POLIMI GAME COLLECTIVE

<http://www.facebook.com/polimigamecollective>

<https://twitter.com/@POLIMIGC>

<http://www.youtube.com/PierLucaLanzi>

<http://www.polimigamecollective.org>