A writer has his outline, an architect has his blueprint, a scientist has his thesis, and a video game production team has its game design document (the GDD). As we’ve previously mentioned, the GDD is your game on paper, but let’s examine what that really means, and to do so we need to dissect the elements of a game. The essence of a typical Next-Gen console game consists of the following.

- Narrative: The story, explanation of what is going on.
- Characters: The playable characters, enemies, companions, NPCs (non-playable characters)
- Locations: Streets, buildings, the sky, forests, bodies of water, ships
- Movements: Walking, running, climbing, strafing
- Combat: Punching, kicking, grappling, struggling
- Weapons: Guns, swords, blunt objects, lasers
- Design: Layouts, maps, levels, paths for the player
- Goals: Missions, obstacles, puzzles, bonuses, things to do
- Tone: Moods, senses, emotions, sounds

What the GDD does is break down each of these elements and explains in detail how they will be handled and achieved, and goes through the journey of each. This is by no means an easy task regardless of how detailed a vision you have in your mind. A game is a fully realized artificial world and the game design explains every nook and cranny.

Now take a game that’s 8 hours long across 10 levels. While the GDD outlines the scenario of the game, movement, weapons, and missions, each of these 10 levels needs to be explained exhaustively, taking us from the beginning to the end and
outlining every thing and place along the way, the different paths, who and what is encountered, found, interacted with, and the player’s goals. While a screenplay averages around 90 to 120 pages, a GDD can be anywhere from 300 to over 1,000 pages, each page chock-full of information.

The GDD is rarely created by one single individual, but instead by an entire team of designers led by the creative director, with the producer overseeing the evolution and providing direction to make sure it maintains the vision, tone, and quality set by the high-concept document from which it is being built. Once the initial pass of the GDD is created, it is then the job of the producer to maintain it and keep it current and organized.

The GDD should be considered a living document that is constantly being iterated upon with portions being added and altered. Even in mid-production one idea can spawn another, which can be built to improve the game, but if the GDD is ever considered locked, then new innovations can never grow. There is a point, of course, where the creative additions must end, but through most of production, the GDD and the task of building the game should move together.

The creation of a GDD is an evolutionary process. It starts with the high-concept document, taking apart its essence statement and features. From there the basic mechanics of the game are sorted out along with the narrative—not necessarily the story details, but the scenario, including the location, time period, universe, and the main goals of the game’s protagonist. From the needs of this world and characters, the feature sets will grow, melding necessity with engagement for the player. Questions should be asked: Yes, a character needs a tool for a specific goal, but how can that tool be made enjoyable for the player while adding to the experience and world of the game?

Once the basis of these elements have been created, the crafting of the design begins to gel. First, globally look at the location(s), style, structure and characteristics of what can be leveraged as the best design for the flow of the game and gameplay. As this is built out, over time each individual level is designed. These will take up the bulk of the GDD, as they include all of the features and elements from the other aspects of the doc, but they are now implemented into a full walkthrough of the intended experience.

The Various Formats of the GDD

As games are now far more detailed than ever before, the format of the GDD has begun to evolve along with it. More teams are starting to prescribe to new ways and formats of creating and contributing to the GDD. The traditional format is one large document that is edited as new information comes in and grows as the features are fleshed out and the designs are built.
More often now you’ll find GDDs that are split into smaller design docs, each taking an element or level of the game. This allows a specific focus on one individual aspect. While this makes it easier to focus on and digest the individual feature or level, it also makes it harder to see the game from a global sense. This is why the producer plays such an important creative role in the GDD, not just in structuring, organizing, and putting things together, but in maintaining the same visualization of the game in all aspects.

Another format that is growing in popularity is the Wiki-style GDD. Here larger groups can all contribute to the document through a server, using the same software tools the popular Wikipedia website generated. The full GDD exists on a server for the team to edit. This form allows team members easy access and allows for edits to be made online. This is especially good for sharing information and changes, but it can also become very unwieldy unless carefully maintained and organized, which is difficult to do because everyone has access and some individuals may not be as structured as others. Wiki’s are also not very image-friendly so it is difficult to include visual elements that help illustrate ideas, and work out designs.

Not Just What, but How!

The GDD includes every element of the game and what needs to be built, but what’s equally important to include is how it will all be done. Think of the GDD as an algebra exam. Not only do you need to give your final answer, but you need to explain what steps you took to solve the equation in the end. It’s easy to dream big in a GDD, but tech, time, and budget don’t always allow for every idea. You need to be able to prove that everything you want to include can actually be achieved and by what means.

While the tech, art, and sound leads will be creating their own design documents, those outline the overall approach and flow. What the GDD needs to examine is how the individual elements and features will be crafted. As always you’ll need to include your tech director in regular reviews of the GDD, as well as the other discipline leads in their respective elements. You can’t expect the art director to craft a style for a game if they are unaware of the elements and design, just like you can’t expect a sound engineer to create the audible tone of the world without knowing what that world is and where it will be taking the player.

Your tech director will be able to determine how each element can be tackled, and identify the tech and tools necessary to do so. The outcome of their reviews lets you know what is feasible and what needs to change, either the GDD or the tools, time, and money at hand.
The Elements of a GDD

We've looked at the essence of what makes up a game; the elements of a GDD dissect all of these but need to be maintained in a specific organized structure.

Some of the basic elements you will need:

- Description of your vision of the game: Often taken from the high-concept doc and essence statement.
  - Summary
  - Game Goals
  - Mood/Theme

- Primary features & Secondary features
  - Environments that are immersive
  - Combat Mechanics – Hand-to-hand, weapons, etc.
  - Character Interactions

- Game Mechanics
  - Character traversing systems
  - Camera Control and Movement

- Combat
  - Style and delivery
  - Targeting
  - Basic combat vs. Complex combat systems
  - Charge Ups
  - Defense
  - Combo attacks

- Player Challenges
  - Enemies – Strengths, weakness, and special attacks
  - Special events (ala God of War)
  - Design guidelines for AI and how non-player characters interact

- Environmental Designs & Interaction
  - What does the terrain look like and how should it feel
  - Interaction and danger – for example, finding lava pits, or fire
  - Scope – how large are the environments, is it an open world?

- Characters
  - Listing out the characters and defining attributes

- Locations
  - Where the player will go

- Level Design
  - Layout of the level that describes what happens to the player
  - Maps out where specific interactions and hotspots will be
  - Describes any puzzle elements that need to be solved
The GDD should include breakdowns of each of your characters in story, traits, skills and abilities. Image Courtesy of: “Street Fighter IV” Capcom.
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