

Waterfall

A situation in game development where you may want to use the Waterfall development methodology is when developing an indie or independent game. An indie or independently developed game would elicit the use of the Waterfall development method because of the often-smaller scale of the project, the lack of direct influence by stakeholders, and a lack of experience with development methodologies.

The smaller size of the project lends itself to the Waterfall method because with a smaller scale deliverable in mind it is easier to comprehensively plan out each aspect of the project and produce documentation that will remain accurate all the way through the development cycle.

Additionally, an indie or independent developed game typically has less influence by stakeholders than an AAA title would. This is because these types of projects are typically self-funded by the team creating them. This makes it so the users are virtually the only stakeholders in the process and only care to receive a working package at the end of development. This allows the developers to hold virtually all of the control over the project and keeps the vision focused on what they want, reducing the issue of requirements changing after the documentation is contracted to almost zero. Another plus of not being tied to shareholders is that the speed of the delivery is not of great importance because investors are not breathing down the team's neck for results and profits.

Lastly, indie development teams don't always have the resources to optimally implement an Agile based development methodology. In Agile methods if the project managers are not skilled enough the project can quickly fall apart.

Agile

A situation in game development where you may want to use the Agile development methodology is when you are working a free to play model game. This is because this kind of game is always expanding and evolving because the profit of the game comes from the constant release of new content. Free to play games are typically multiplayer only games where the gameplay is heavily based in PVP or PVE and are typically MMOs, team shooters, MOBAs or RPGs where new content needs to be released fast to keep the player base engaged and to keep up with the current trends in their respective genre.

A crowning example of the power of using an Agile methodology is Fortnite, since the launch of its battle royal mode in 2017, they have dominated the genre and have been a trail blazer in the free to play model with season and battle-based content models. At launch the game was to be a PVE hoard game but due to Epic seeing the popularity of Player Unknowns Battlegrounds they quickly pivoted and developed their own battle royale game which quickly engulfed the PVE game mode making it non-existent. This sort of turn around would not have been possible with Waterfall.

The key to the free to play model's survival is speed and versatility, and that is exactly the strength that is gained when using an Agile development methodology. Additionally, an Agile development style enables free to play games to keep expanding and evolving and never have a definitive end of development point. Once an update or content release is fixed the development team is already moving on to the next iteration of the game and the next content release, while obviously maintaining the current one until the next release.