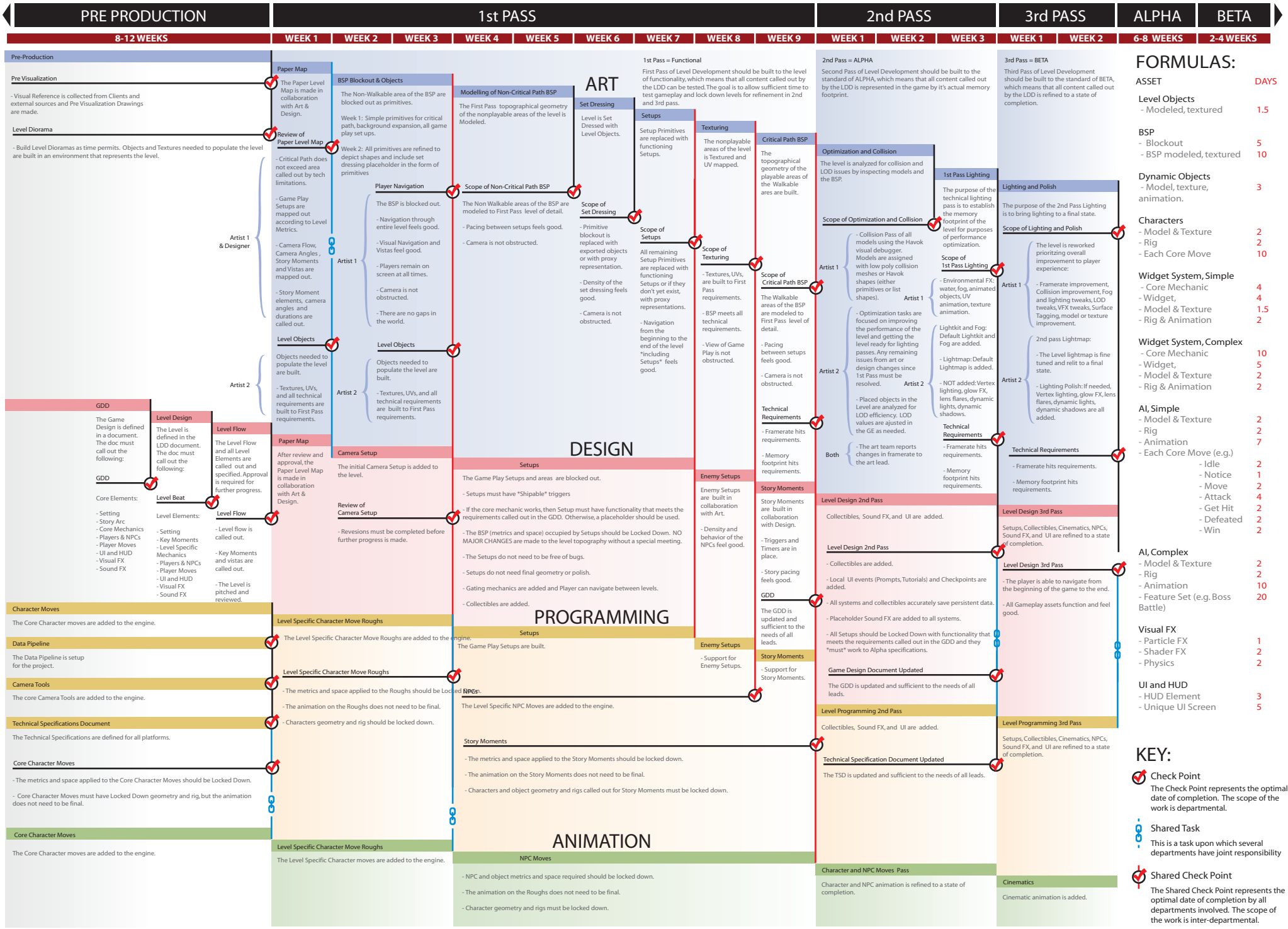
PRE PRODUCTION
1st PASS
2nd PASS
3rd PASS
ALPHA
BETA
8-12 WEEKS
WEEK 1
WEEK 2
WEEK 3
WEEK 4
WEEK 5
WEEK 6
WEEK 7
WEEK 8
WEEK 9
WEEK 1
WEEK 2
WEEK 3
WEEK 1
WEEK 2
6-8 WEEKS
2-4 WEEKS
Pre-Production
Pre Visualization
- Visual Reference is collected from Clients and external sources and Pre Visualization Drawings are made.
Level Diorama
- Build Level Dioramas as time permits. Objects and Textures needed to populate the level are built in an environment that represents the level.
Artist 1 & Designer
Artist 2
GDD
The Game Design is defined in a document. The doc must call out the following:
GDD
Core Elements:
- Setting
- Story Arc
- Core Mechanics
- Players & NPCs
- Player Moves
- UI and HUD
- Visual FX
- Sound FX
Level Design
The Level is defined in the LDD document. The doc must call out the following:
Level Beat
Level Elements:
- Setting
- Key Moments
- Level Specific Mechanics
- Players & NPCs
- Player Moves
- UI and HUD
- Visual FX
- Sound FX
Level Flow
The Level Flow and all Level Elements are called out and specified. Approval is required for further progress.
Level Flow
- Level flow is called out.
- Key Moments and vistas are called out.
- The Level is pitched and reviewed.
Character Moves
The Core Character moves are added to the engine.
Data Pipeline
The Data Pipeline is setup for the project.
Camera Tools
The core Camera Tools are added to the engine.
Technical Specifications Document
The Technical Specifications are defined for all platforms.
Core Character Moves
- The metrics and space applied to the Core Character Moves should be Locked Down.
- Core Character Moves must have Locked Down geometry and rig, but the animation does not need to be final.
Core Character Moves
The Core Character moves are added to the engine.
Paper Map
The Paper Level Map is made in collaboration with Art & Design.
Review of Paper Level Map
- Critical Path does not exceed area called out by tech limitations.
- Game Play Setups are mapped out according to Level Metrics.
- Camera Flow, Camera Angles, Story Moments and Vistas are mapped out.
- Story Moment elements, camera angles and durations are called out.
Level Objects
Objects needed to populate the level are built.
- Textures, UVs, and all technical requirements are built to First Pass requirements.
Paper Map
After review and approval, the Paper Level Map is made in collaboration with Art & Design.
Level Specific Character Move Roughs
The Level Specific Character Move Roughs are added to the engine.
Level Specific Character Move Roughs
- The metrics and space applied to the Roughs should be Locked Down.
- The animation on the Roughs does not need to be final.
- Characters geometry and rig should be locked down.
Level Specific Character Move Roughs
The Level Specific Character moves are added to the engine.
BSP Blockout & Objects
The Non-Walkable area of the BSP are blocked out as primitives.
Week 1: Simple primitives for critical path, background expansion, all game play set ups.
Week 2: All primitives are refined to depict shapes and include set dressing placeholder in the form of primitives
Player Navigation
The BSP is blocked out.
- Navigation through entire level feels good.
- Visual Navigation and Vistas feel good.
- Players remain on screen at all times.
- Camera is not obstructed.
- There are no gaps in the world.
Level Objects
Objects needed to populate the level are built.
- Textures, UVs, and all technical requirements are built to First Pass requirements.
Camera Setup
The initial Camera Setup is added to the level.
Review of Camera Setup
- Revesions must be completed before further progress is made.
Modelling of Non-Critical Path BSP
The First Pass topographical geometry of the nonplayable areas of the level is Modeled.
Scope of Non-Critical Path BSP
The Non Walkable areas of the BSP are modeled to First Pass level of detail.
- Pacing between setups feels good.
- Camera is not obstructed.
ART
Set Dressing
Level is Set Dressed with Level Objects.
Scope of Set Dressing
- Primitive blockout is replaced with exported objects or with proxy representation.
- Density of the set dressing feels good.
- Camera is not obstructed.
1st Pass = Functional
First Pass of Level Development should be built to the level of functionality, which means that all content called out by the LDD can be tested. The goal is to allow sufficient time to test gameplay and lock down levels for refinement in 2nd and 3rd pass.
Setups
Setup Primitives are replaced with functioning Setups.
Scope of Setups
All remaining Setup Primitives are replaced with functioning Setups or if they don't yet exist, with proxy representations.
- Navigation from the beginning to the end of the level *including Setups* feels good.
Texturing
The nonplayable areas of the level is Textured and UV mapped.
Scope of Texturing
- Textures, UVs, are built to First Pass requirements.
- BSP meets all technical requirements.
- View of Game Play is not obstructed.
Critical Path BSP
The topographical geometry of the playable areas of the Walkable ares are built.
Scope of Critical Path BSP
The Walkable areas of the BSP are modeled to First Pass level of detail.
- Pacing between setups feels good.
- Camera is not obstructed.
Technical Requirements
- Framerate hits requirements.
- Memory footprint hits requirements.
DESIGN
Setups
The Game Play Setups and areas are blocked out.
- Setups must have *Shipable* triggers
- If the core mechanic works, then Setup must have functionality that meets the requirements called out in the GDD. Otherwise, a placeholder should be used.
- The BSP (metrics and space) occupied by Setups should be Locked Down. NO MAJOR CHANGES are made to the level topography without a special meeting.
- The Setups do not need to be free of bugs.
- Setups do not need final geometry or polish.
- Gating mechanics are added and Player can navigate between levels.
- Collectibles are added.
Enemy Setups
Enemy Setups are built in collaboration with Art.
- Density and behavior of the NPCs feel good.
Story Moments
Story Moments are built in collaboration with Design.
- Triggers and Timers are in place.
- Story pacing feels good.
GDD
The GDD is updated and sufficient to the needs of all leads.
PROGRAMMING
Setups
The Game Play Setups are built.
Enemy Setups
- Support for Enemy Setups.
Story Moments
- Support for Story Moments.
NPCs
The Level Specific NPC Moves are added to the engine.
Story Moments
- The metrics and space applied to the Story Moments should be locked down.
- The animation on the Story Moments does not need to be final.
- Characters and object geometry and rigs called out for Story Moments must be locked down.
ANIMATION
NPC Moves
- NPC and object metrics and space required should be locked down.
- The animation on the Roughs does not need to be final.
- Character geometry and rigs must be locked down.
2nd Pass = ALPHA
Second Pass of Level Development should be built to the standard of ALPHA, which means that all content called out by the LDD is represented in the game by it's actual memory footprint.
Optimization and Collision
The level is analyzed for collision and LOD issues by inspecting models and the BSP.
Scope of Optimization and Collision
Artist 1
- Collision Pass of all models using the Havok visual debugger. Models are assigned with low poly collision meshes or Havok shapes (either primitives or list shapes).
Artist 2
- Optimization tasks are focused on improving the performance of the level and getting the level ready for lighting passes. Any remaining issues from art or design changes since 1st Pass must be resolved.
- Placed objects in the Level are analyzed for LOD efficiency. LOD values are ajusted in the GE as needed.
Both
- The art team reports changes in framerate to the art lead.
1st Pass Lighting
The purpose of the technical lighting pass is to establish the memory footprint of the level for purposes of performance optimization.
Scope of 1st Pass Lighting
Artist 1
- Environmental FX: water, fog, animated objects, UV animation, texture animation.
Artist 2
Lightkit and Fog: Default Lightkit and Fog are added.
- Lightmap: Default Lightmap is added.
- NOT added: Vertex lighting, glow FX, lens flares, dynamic lights, dynamic shadows.
Technical Requirements
- Framerate hits requirements.
- Memory footprint hits requirements.
Level Design 2nd Pass
Collectibles, Sound FX, and UI are added.
Level Design 2nd Pass
- Collectibles are added.
- Local UI events (Prompts, Tutorials) and Checkpoints are added.
- All systems and collectibles accurately save persistent data.
- Placeholder Sound FX are added to all systems.
- All Setups should be Locked Down with functionality that meets the requirements called out in the GDD and they *must* work to Alpha specifications.
Game Design Document Updated
The GDD is updated and sufficient to the needs of all leads.
Level Programming 2nd Pass
Collectibles, Sound FX, and UI are added.
Technical Specification Document Updated
The TSD is updated and sufficient to the needs of all leads.
Character and NPC Moves Pass
Character and NPC animation is refined to a state of completion.
3rd Pass = BETA
Third Pass of Level Development should be built to the standard of BETA, which means that all content called out by the LDD is refined to a state of completion.
Lighting and Polish
The purpose of the 2nd Pass Lighting is to bring lighting to a final state.
Scope of Lighting and Polish
Artist 1
The level is reworked prioritizing overall improvement to player experience:
- Framerate improvement, Collision improvement, Fog and lighting tweaks, LOD tweaks, VFX tweaks, Surface Tagging, model or texture improvement.
Artist 2
2nd pass Lightmap:
- The Level lightmap is fine tuned and relit to a final state.
- Lighting Polish: If needed, Vertex lighting, glow FX, lens flares, dynamic lights, dynamic shadows are all added.
Technical Requirements
- Framerate hits requirements.
- Memory footprint hits requirements.
Level Design 3rd Pass
Setups, Collectibles, Cinematics, NPCs, Sound FX, and UI are refined to a state of completion.
Level Design 3rd Pass
- The player is able to navigate from the beginning of the game to the end.
- All Gameplay assets function and feel good.
Level Programming 3rd Pass
Setups, Collectibles, Cinematics, NPCs, Sound FX, and UI are refined to a state of completion.
Cinematics
Cinematic animation is added.
FORMULAS:
ASSET DAYS
Level Objects
- Modeled, textured 1.5
BSP
- Blockout 5
- BSP modeled, textured 10
Dynamic Objects
- Model, texture, animation. 3
Characters
- Model & Texture 2
- Rig 2
- Each Core Move 10
Widget System, Simple
- Core Mechanic 4
- Widget, 4
- Model & Texture 1.5
- Rig & Animation 2
Widget System, Complex
- Core Mechanic 10
- Widget, 5
- Model & Texture 2
- Rig & Animation 2
AI, Simple
- Model & Texture 2
- Rig 2
- Animation 7
- Each Core Move (e.g.)
- Idle 2
- Notice 1
- Move 2
- Attack 4
- Get Hit 2
- Defeated 2
- Win 2
AI, Complex
- Model & Texture 2
- Rig 2
- Animation 10
- Feature Set (e.g. Boss Battle) 20
Visual FX
- Particle FX 1
- Shader FX 2
- Physics 2
UI and HUD
- HUD Element 3
- Unique UI Screen 5
KEY:
Check Point
The Check Point represents the optimal date of completion. The scope of the work is departmental.
Shared Task
This is a task upon which several departments have joint responsibility
Shared Check Point
The Shared Check Point represents the optimal date of completion by all departments involved. The scope of the work is inter-departmental.