

Competitive Map Refinement: How to Understand the Gameplay

“Whether you feel your map is ready for release or not, it is imperative to ensure your map has reached its full state of balance before you actually release it.”

Terminology

- HKL – High Kill Location(s)
- HDL – High Death Location(s)
- GDP – Greatest Domination Point(s)
- LoS – Line(s) of Sight
- PR – Progression Route(s)
- CQC – Close Quarter Combat
- CW – Conflict Weapon(s)

5 stages of Competitive Map Refinement

- Initial
 - “This stage only really applies to the **first few games you play** on the map.”
 - “During the Initial phase, you are searching for "Kill Locations" - **Places where you know you can kill someone**; these are usually marked subconsciously by the location of your deaths and kills during testing.”
 - Examples
 - “In the initial phase of Guardian (thinking back a very long time here); The "Top Mid" section of the map was often a massive kill area. This was **caused by Objective placement and transition through the map**. New players often found themselves searching for ways to reach the middle "Ring" because they knew enemies would be in a nearby proximity.”
 - “Construct's initial phase was somewhat spaced. Players always flocked to the upper levels and usually action would adhere in the "lobby" or "Purple Lift rooms". This is because in the early stages of Construct the Sword was the most sought after weapon and all early action assembled nearby to it's spawn location.”
- Expanse
 - “The Expanse stage is the stage in which **players take Knowledge of the High Kill Locations and High Death Locations(HKL/HDL) and search the map for alternative routes to HKLs that avoid the HDLs locations.**”

- Examples:
 - “In Guardian, the Expanse stage was spread across the map. Players identified in the early stages of Guardian gameplay that “Green/Forest” had a **Tree stump that provided two way cover from the sides with a clear view of “Top Mid”**. This stump also had access to a new addition in Halo 3 Gameplay; the Bubble Shield. New features in the game tended to attract more players to it and players often tried to use these to make Kill Locations more suitable for new style gameplay.
During later expanse stages of Gameplay (Primarily after the weapons swap of Guardian for matchmaking purposes) the Sniper tower was often considered a good HKL, alongside “Gold” which also had a HKL and HDL nearby.”
 - “Again, in the early stages of Expanse; Construct was very varied. (Which is probably why it remained a strong favourite for the majority of the community right until the end of Halo 3’s lifespan). **Its HKLs were very close to HDLs leaving not much room for early Expanse**. Most players located the Bubble Shield and Sniper Rifle and would often try to integrate the Bubbleshield into gameplay when it wasn’t really necessary from it’s location. This started creating more “Open” gameplay as it drew members from the lobby, to the centralised platform. Which in turn, started to create HKLs and HDLs on “Closed Street” and “Open Street”. As far as I’m aware, Construct was not reconfigured after the release with Halo 3. In its early BETA stages there were teleporters on the map which caused a lot of camping and promoted too much chaos in the lobby area. The removal of these teleporters from the BETA assisted the map’s gameplay and evolution without further need to adjust the map.”

● Dominance

- “Dominance is arguably **one of the most important stages of the Map Refinement** process. It is the point of a maps testing lifespan where players identify the Greatest Domination Point (GDP) (Or best camping position if you will). The GDP can be described as the best HKL that has the best view of the best HDL. It may often be that the second best HKL has a view of the best HDL etc... **It is basically the point where players realise the location where they can receive the most kills, whilst providing the fewest deaths**. Beware, these can also be identified as different areas depending on the player. **This stage can be revisited after reaching the Progression phase.**”
- Examples:
 - “In Guardian(pre-change) the greatest HDL was located “Top-Mid”. Using the pre-weapon set Bungie originally had; the Sniper Tower was clearly defined as the GDP. It was a close quarter environment (Which a lot of players prefer...) with access to a Mauler, Sniper Rifle, Overshields, 2x Plasma Grenades, a Carbine Rifle and a Needler. **The weapon set for this region of the map provided all types of players access to their favourite type of weapons**. Long Range Sniper Rifles, Auto-Aim Needlers, Sticky Plasma’s, Mid-Range Carbines and CQC Maulers, all whilst retaining momentary invincibility due to the Overshields. Can someone say “Overkill”?”
 - “Guardian(post-change) was a different matter. As the map had already visited progression prior to returning through the 5 phases, and people had already

identified counterpoints to the GDP, the map's weapon set was changed to provide certain advantages of holding certain areas. If you were more a CQC person, you would often find yourself running to "Blue" to pick up the shotgun and then try to infiltrate the "Sniper Tower" where it was at its most effective location. This effectively still made the Sniper tower the best HKL, but it was also the biggest HDL; therefore creating the region balanced."

- "Construct's Dominance phase was once again, split. **To successfully dominate Construct, you had to work as a Team to hold the three key points.** "Open Purple", "Closed Purple" and "Top-Gold". These GDP's were located by players realising the weaknesses of Gravity Lifts. **Player's that come up a lift have no control of their own movement.** 'Camping' those lifts provides a surprising and invulnerable attack on the enemy which spreads the gameplay across the map and caused the HDLs and HKLs to move almost directly on top of each other."

● Progression

- **"The Progression phase is directly linked to Dominance. If Dominance ever gets revisited, Progression should be visited afterwards too.** Progression provides players with Alternatives and **often uses low-action areas to flank the enemy.** These alternative routes are found in maps that can excel in gameplay. **Progression Routes(PR) are often back doors to GDPs** and after passing through Dominance, players will know that other players will always be present in a GDP. **This can essentially turn a GDP into the biggest HDL as well as the biggest HKL, making the area more balanced overall.**"
- Examples:
 - "In Guardian(Pre-Change) **the pivotal point of identifying PRs were when players realised they could go underneath the central point in the map, pick up a powerful CQC weapon and head straight into the Sniper Tower virtually undetected (depending on whether crouch-walking or not).** The other PRs to Sniper Tower were from "Blue" via the Man-cannon (although this entrance was announced via the gravity lift itself) and "Elbow". These two routes provided open air access with the ability to throw grenades into the vicinity of the Tower in order to weaken enemies before arriving in combat."
 - "Guardian(Post-Change) had the same PRs into Sniper Tower, but also had a few into "Blue" and "Gold" depending on which side you wanted to hold. "Blue/Gold" were usually the counter holding areas for the team that weren't currently controlling the "Sniper Tower". Examples of these is the route down "Bottom-Mid" and the Man-Cannon from "Green/Forest". As the side itself was generally a larger area to control, it didn't require as many PRs because the Line of Sight (LoS) was significantly spread across a wider area when firing at it from the Sniper Tower; allowing more players to return fire on the more confined Sniper Tower."
 - "Construct's Progression **was during the realisation of "Open-Ramp" and that the two struts leading up to "Sword Spawn" were scalable.** This now Provided 6 access routes to the top level of Construct making a standard 4v4 game harder for one team to control. This once again shifted players more Across to "Lobby" and "Open Purple" as the HKL and HDL zones were much

closer together. This occasionally left “Closed-Purple” more open and accessible than its counterpart “Open-Purple”.

● Balance

- “Balance is the final Phase and will be revisited every time a change is made to your map. This phase isn’t something that’s usually established by the player, but **more so established by the map creator**. You will often find when evaluating the other four stages that you need to slightly tweak a map. However, even slightly tweaking a map can provide massive changes in regards to gameplay. For example, swapping out a weapon can be the big difference between creating a perfectly balanced map and not.”
- Examples:
 - “ In Pre-Change Guardian, the largest Balance issues were identified on Sniper Tower. The fact that the region provided access to every style of weapon available in the game and also provided Long-Range, Short-Range and Mid-Range LoS made the map very unbalanced and clearly defined a Region both teams must control in order to win.”
 - “In Post-Change Guardian, this issue was **resolved by removal of both Maulers**; making the map focus around 1 main Long-Range weapon (Sniper Rifle) and 1 main Close Quarter Combat weapon (Shotgun). These were placed evenly apart on the map at both teams spawn areas, allowing both teams to have either one of the power weapons. The Gravity Hammer remained as a Conflict Weapon (CW). This weapon ‘belonged’ to neither team and was fought for rather than gifted, meaning if you didn’t want to provide the enemy with a 1up advantage over your team, you had to occasionally concentrate on the “Bottom-Mid” routes. This increased map flow slightly from the Main GDPs.”
 - “Construct had balance throughout the release version of testing. It took players a lot of shifting in certain regions and realisation of PRs to effectively balance the map correctly, however, the gameplay was justified by remaining a strong favourite throughout Halo 3’s lifespan. **It’s possible that Construct’s main features of Balance was that no power weapon was immediately ‘Gifted’ to one team and all weapons on the map were CWs.**”
- Creating Balance
 - **“In order to successfully create a balanced map you will need to evaluate the map flow and identify all GDPs, HKLs and HDLs.** Find out why these areas are visited more frequently by **evaluating the "Non-Structural" items on your map.** For Example, Spawns, Weapons, Vehicles etc...”
 - “You will often find that HKLs and HDLs often fall on top of Power Weapons. (For example, In Reflection; A lot of action occurs at Sniper Rifle spawn.), If you realise too many players are gaining kills in this region and are not dying as frequently, you can try adjusting weapon or item properties. Adjusting the Respawn Time of the Weapon much higher can draw players away from that area and channel their focus elsewhere in the map creating an illusion of balance.”
 - “You will also need to look at LoS in these locations. If a bridge is open to all sides and players die on it frequently, players will avoid using this bridge which will channel the maps flow elsewhere. **Adding in a power weapon to a neutral**

point in this bridge (i.e the Centre) will provide motivation for players to cross the bridge again and enter the HDL. Alternatively, if a GDP has too much cover, and players recognise this; you will need to construct PRs into the GDP to make the area more dangerous to hold.”