PvE Design Philosophy

Abstract

In this document we have striven to detail the thought process behind how we will be balancing the game moving forward. We have broken the document into three parts, first the Introduction, second PvE Balance, and third Fundamental Game Principles.

In part 1, the reason behind why we balance, the three primarily formats of the game (PvP, Speedrunning, and PvE), and the different issues attendant to each as well as where they overlap are discussed. We in the SR Team view ourselves as stewards of the game, desiring to add to and improve the existing experience without destroying that which everyone already loves.

In part 2, we discuss the fact that we balance around factions more than individual cards. Battleforge has 9 primary factions, the four pure factions (Frost, Fire, Nature, and Shadow) and the five hybrid factions (Bandits, Stonekin, Lost Souls, Twilight and Amii). These nine factions will be the focus of our balancing moving forward. A faction will be considered balanced once it fulfills every one of the five primary design goals

1. High Overall Quality
2. Thematic Correctness
3. Synergy and Versatility
4. Stable Throughout Tiers
5. Intuitive Design

Since we are modifying an existing game with existing flaws, we face a number of balancing caveats. These include existing Faction-Carriers, cards which are broken by design, and cards which violate fundamental game principles. These caveats affect how we will change the game moving forward.

In part 3, the fundamental game principles around which the game will be balanced are stated and explained. There are seven fundamental principles, which are variously general guidelines or strict rules. Some potential exceptions to the principles are discussed in this section. Importantly, just because the logic of a principle leads to the conclusion that a specific card should be changed, it does not mean that it will happen immediately. Throughout the document, we emphasis that the current focus from the PvE team is to buff existing weak cards and factions.

Part 1: Introduction

In principle, the premise of Battleforge is to forge decks which are unique to your playstyle and see the cards play-out in real-time. But in reality, there are many must-have cards and meta-defining cards which overshadow most other cards in the game. This lowers the effective amount of content in Battleforge and leaves much of its potential unused.

Why do balance?

One can argue that the content of Battleforge is in perfect shape. All it needs is some fixing for PvP and maybe a buff to some of the worse cards in the game. However, as developers we are obligated to bring the game into its best possible shape. We do not see ourselves as liquidators of existing assets, but as stewards that want to see the game improve and prosper.

At its most essential, balancing is a form of content management. It is an iterative process that takes time, and it is not an exact science, but can be guided and sped-up by good design. Careless changes are likely to result in unexpected issues.

Balance Stakeholder

As unique as Battleforge is, it also has some unique concerns in regards to balance. Where most RTS games only provide a limited number of factions to play, the number of decks in Battleforge is virtually uncountable. And while most other RTS games limit their balancing concerns to either competitive or cooperative play, Battleforge has to serve them both. Fortunately, this is mitigated by the fact that PvE and PvP are often build around different core-cards. However, some overlap between cards is inevitable and some changes will have ripple effects in other formats.

Essentially, the formats of the game can be boiled down into three:

- **PvP**: Asymmetric and Competitive
- **Speedrunning**: Symmetric and Competitive
- **PvE**: Asymmetric and Cooperative

PvP

For **PvP**, the combination of asymmetric and competitive makes balancing a particularly delicate endeavor. Due to its asymmetric nature, there is a plethora of interactions between cards that need to be considered. And due to its competitiveness, resulting unbalances translate to a direct advantage/disadvantage in a setting that is ideally entirely skill-driven. However, asymmetry is a core appeal of the game because it allows playing the game in different ways.

Speedrunning

In contrast, **Speedrunning** is a fundamentally symmetric format. Unlike PvP, you can approach a speedrun with perfect and in-depth information. This allows for tailored decks for each map and each speedrunner has access to the same exact tools. Ultimately, this results in a very fair format.

Now, we are aware of our very dedicated and competitive community around this format, but we must stress that it cannot be our primary concern. Likely, future cards changes will mess with established strategies, just as it was the case on the original EA servers. However, our mid-term goal is a seasonal reset of speedrun rankings with a wave of rewards at the end of each season. We will release more information on this in due time.

PvE

Despite being a non-competitive format, normal PvE balance is arguably most crucial to our average players. This format is the steppingstone for new players, and it must serve playstyles which range from slow and macro-oriented to faster and more micro-intense approaches. This is where we can improve the most and the rest of the document will cover this in greater detail.

Part 2: PvE Balance

For PvE, the process and requirements resolving around balancing are fundamentally different to those of PvP.

PvP has an established meta with concrete problems. Furthermore, the intricacies and interactions between factions put tight constraints on what can be done to improve balance. These constraints are what allow an expert-group to reason about balance chances in a factually driven way. And finally, it is easy to pick such expert-group members based on ladder rankings.

None of this is true for PvE and the balancing procedure needs to differ as such.

- Asymmetry in PvE should empower players to try out different playstyles, but most of the powerful decks resolve around multi-colored gimmicks.
- Because imbalance in PvE is not as clear-cut as it is in a competitive PvP match, there are virtually infinite ways to adjust a card. And without clear design constraints for PvE changes, discussions around this topic likely end in discord (no pun intended).
- This is made worse by competing visions for the game as seen in the past.

The road forward

The game helps us by providing clear archetypes via the four elements. By analyzing the game and distilling the essence of each element, we can come up with objective design goals for each faction.

Faction viability

For us, faction viability takes precedence over card viability. In the end, the game is about deck-building and different playstyles, with Battleforge providing 9 **first-class factions** in this regard:

- 4 Pure Elements
- 5 Hybrid Elements (Bandits, Stonekin, Lost Souls, Twilight and Amii)[1]

The primary characteristic of first-class factions is that they have unique cards which are exclusive to them. This gives them a stronger identity as well as cards which can be specifically geared towards the playstyle of this faction. With cards directly tied to their faction, we can make more targeted changes with a lower risk of impacting other factions negatively.

In contrast, we have **second-class decks** which are:

- Decks with 3 or 4 colors
- Decks with 3 orbs of one color and one extra (e.g. Fire Dragon + Regrowth decks).
- Pure Fire-Frost (which cannot presently have hybrid cards due to technical limitations).

This does not mean that we discourage these types of decks or that we will neglect them entirely, but first-class factions will take precedence in balancing. Therefore, we find it acceptable to make substantial improvements to first-class factions even if they come at the detriment of a second-class one.

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[1] A corresponding Fire-Frost faction will be added to this list once this becomes technically possible.

Definition of a Faction

In Battleforge, a "faction" translates to a "race" in games such as Starcraft and a "deck" would be a concrete "build-order". The game lives off of combos and synergies between cards and as such, it is a fallacy to see and buff cards in isolation. Our goal must be a rich gameplay experience. It is likely that, as we change cards, some existing decks will have their effectiveness lowered but we deem this acceptable if the faction benefits as a whole.

For those that are concerned: We want to buff factions into "viable and strong" territory rather than nerfing cards and decks which currently dominate PvE play. Eventually, some cards need to be nerfed for internal balance, but our main concern is to **increase the overall variety of the game** and not take-away from it.

In other words, a faction is a collection of decks which all share the same orb requirements.

Design Goals

For PvE our primary goal is a richer game experience in which every faction possesses a unique identity manifested through viable strategies that can clear both campaign and RPvE maps. Players should choose a deck and faction based on their preferences and personal playstyles, rather than copying certain decks because they are trivial to use and more powerful.

In contrast, it is an explicit non-goal to achieve complete parity between factions. We want to keep asymmetry and enhance it where possible. Some streamlining among factions will be necessary as well as some nerfing of overpowered and meta-defining cards. But again, right now we are focusing our efforts on providing new ways to play and improving the weakest factions.

Mind you, balancing is an intricate and iterative approach and the answer to an imbalanced game is never as easy as "nerf all overpowered cards" or "just buff all the weak cards". We will consider a faction "complete" if it fulfills all five of the following criteria:

- **High Overall Quality** (via polishing and quality of life features where the cards feel intuitive to use and do not offer bad surprises)
- **Thematic Correctness** (playing a deck/faction feels how the lore would suggest)
- **Synergy and Versatility** (the faction can deal with a range of situations and does not rely on a singular card that carries the faction. In a perfect scenario, you can also play the faction in different ways.)
- **Stable Throughout Tiers** (factions should be viable in all tiers and not have significant weak spots in T2, T3 or T4.)
- **Intuitive Design** (It is not necessary to know esoteric details or mechanical exploits to make this faction viable. While we want some factions to be more micro-demanding it must be easy to understand what each card is doing.)

Example: Stonekin

Stonekin is an example of a well-designed faction. The image of sentient rock elementals conveys outstanding durability, which they utilize to outlast their opponents. They achieve this by sacrificing speed and they are best suited for players who summon armies and do not want to necessarily micro-manage them. This is translated well into the gameplay via the durability of Frost as well as the continuing spell support from Nature. And their unique creatures double-down on this design.

On the other hand, Stonekin lack access to burst damage and they avoid the complex life/death mechanics of Shadow. Stonekin units are well-designed thematically, they play smoothly, and throughout the tiers they maintain a good internal balance such that no one unit or strategy is head-and-shoulders above other options. Thus, they fulfill all five of the criteria mentioned above.

Example: Lost Souls

While Lost Souls have a couple of interesting dynamics, the faction is primarily carried by powerful Shadow cards. They possess no powerful gameplay-narrative and lack the capabilities to deal massive damage and thus capitalize from key shadow-spells. In T4, their best faction combination is Lost Evocation + Blood Healing and they otherwise have underwhelming unique cards. Even the Lost Spirit Ship only shines when used with massive spell support from Nature. And while their faction ability is not completely useless, it is very gimmicky and does not reinforce how the faction plays.

Furthermore, there is also a thematic disconnect since there is little in the lore that suggests why Lost Souls require Frost orbs. From a lore point of view, they could have just as well been an addition to the range of Shadow cards.

This is sad because Lost Souls are visually imposing and could have their gameplay niche as a mix of Frost's durability and Shadow's subversion. In this sense they are currently the "worst of both worlds". Right now, Frost T4 does not offer many good cards and they lack the damage potential to maximize the effectiveness of cards like Unholy Hero, Infect, or Soulshatter.

Balancing Caveats

From a simplified point of view, one could argue that the game is balanced if the following applies:

1. All cards are **useful**, at least for niche strategies.
2. And no single card should be vastly **superior or overpowered**.

But we work on an existing game with existing flaws, and we face the following caveats:

A. **Faction-Carriers**: Right now, some factions rely on cards which are arguably "too strong" to make up shortcomings in another area. While this is not desirable it is tolerated until a better solution arrives.
B. **Broken by Design**: Some cards cannot be toned-down or buffed without them becoming useless or overpowered. In such cases, more drastic changes or a complete rework might be required.
C. **Violation of Game Principles**. Some cards fundamentally violate core-gameplay principles and thus warp the game around themselves if the card in question is viable.

In the most extreme cases, we argue that it is better to have a card be useless than toxic. Especially in PvP there have been times where some cards or combos completely defined the meta. Because this diminishes the overall variety in the game we would rather have such toxic dynamics replaced or removed. Even if this means that the cards in question become useless, we believe this is better for the game as a whole.

Examples

Superior or Overpowered: Frenetic Assault

A simple example for a card that is *vastly superior* and thus **violates point 2** is **Frenetic Assault**. While it is a powerful spell, it is not a Faction-Carrier, it does not have a broken design, and it does not violate game principles. It is merely overtuned and should not be taken as reference when buffing other cards. We do not exclude the possibility of a reasonable nerf in the future, but this is not a priority right now. Mind you, as this card does not touch any of the caveats above, it will likely keep its core-design untouched even after a potential nerf.

Caveat A: Abomination

Abomination has the best stats/power ratio in T4 by a mile and a powerful active ability. However, it is also pure Twilight and for many people it is the only reason that they go pure Twilight in T4.

Similarly, several of the staple PvP cards belong to this category as they are needed to make up for a drawback in the faction somewhere else.

Such cards might look overpowered in isolation but lowering their effectiveness would do much more harm than good.

Caveat B: Flying XL creatures in T3 (Northland Drake, Corsair)

T3 flying creatures are problematic in PvP as some factions have little or no good anti-air capabilities in T3. Buffing such cards would hard-counter some decks which could warp the whole T3 meta around them.

Caveat C: Decomposer

Cards that violate caveat C will be reworked or restricted in order to rectify their violation of game principles. You may now wonder what it means to be "fundamentally at odds with core game principles". What are these principles, why do they exist, and why shouldn't they be broken? These principles will be examined in part 3 below.

Card Nerfing

As seen in the previous section, some cards such as Frenetic Assault or Lost Spirit Ship are arguably overpowered. In part, they remove too much of the challenges provided by the game and we would like to adjust these cards in the long run. But this is not a concern for now.

Before we start nerfs of PvE cards, we want to provide new ways to play and make more factions viable. Many people currently use cards like Lost Spirit Ships because they are an easy way to play and there are not many good alternative decks.

Our goal is to provide alternatives via buffing first-class factions. However, these alternatives should be viable because of powerful card interactions and not because you can just spam a handful of cards. Similarly, overpowered cards will not be the reference point for balancing other cards.

Technical Limitations

It must be made clear that our card changes are severely limited by our technical environment. Essentially, our balance changes are just a "mod" to the original game. We cannot redefine everything and for the most part we can only repurpose existing abilities and change their parameters.

For example: We can give the "Payback" ability to an arbitrary creature in the game (when being trampled, this creature deals X amount of damage to the enemy). For this ability we can change the value, but we cannot limit the damage to XL-units only. Restricting the damage to XL-creatures is a change in behavior which is not supported.

Part 3: Fundamental Game Principles:

1. No ground presence from flying units.
2. Damage and crowd control spells should require ground presence.
3. Units and buildings should bind power.
4. The 120 unit-limit should only be exceeded temporarily.
5. Power should only be produced from wells or mechanics that interact directly with wells.
6. Orb restrictions should not be bypassed.
7. Monuments should be available in accord with map design, not card design.

Principle 1 - "No ground presence from flying units."

Maps are designed such that units, buildings, most spells, and structures can only be played or built if there is a ground unit nearby. Once you violate this principle, maps become trivial as whole or large sections of a given map become redundant as the flying unit or summon can bypass them.

There is an open question of whether summoned ground units can provide ground presence. In the case of Undead Army where the ground units are able to bypass terrain, this is unacceptable, but in the case of units like Viridya's Treespirits, Nox Carrier's Rippers, or Cultist Master's Nightcrawlers where the summoned units cannot bypass terrain, ground presence could be granted.

Example:
Corsair caused issues in PvP because it could spawn units with ground presence. This resulted in an unprecedented mobility advantage for the player.

Principle 2 – "Damage and crowd control spells should require ground presence."

Spells are split into three categories: Spells, Arcane, and Enchantments. Enchantments are unique in that they have a global effect. Spell cards require ground presence while Arcane cards do not require ground presence. Maps are designed such that a player has to move units to an enemy camp in order to destroy spawn buildings and objectives. If the player can instead use Arcane spells to destroy buildings, the map is trivialized.

The same is true to a lesser extent with crowd control. An experienced player could trivialize certain maps by using crowd control through the fog of war or with flying units. Many flying units already possess limited forms of crowd control innately as abilities, but these abilities are factored into their power cost and orb restrictions and are purposefully limited in their effectiveness due to the flying nature of the unit.

Example:
Arcane damage spells would allow the player to destroy the objective without interacting with the map from the comfort of their base. Every "destroy an objective" map would become trivial like Guns of Lyr where players typically ignore the actual map mechanic and bypass it with cards like Rifle Cultists and Voodoo Shack.

Green Peace allows the player to easily ignore much of the actual map in Passage to Darkness in conjunction with Giant Wyrm. It also allows people to defend the gold wagon in Bad Harvest without actually defending.

Principle 3 – "Units and buildings should bind power."

There are 3 types of cards in Battleforge: Units, Buildings, and Spells. Spells create one-time or limited duration effects and thus, due to the limited nature of spells, their power is immediately returned to the void. Since the usefulness of a unit or building persists as long as the unit or building remains alive, they bind power. Binding power thus functions as a way to balance the continued strength of units and buildings with the limited strength of spells.

Example:

Second Chance was previously changed because players were able to suicide their entire army and have an entire unit-limit worth of boundless XL-units (still possible with Dreadcharger). This allowed the player to ignore the normal limitations of units (binding power) while possessing nearly all their strengths (minus ground presence).

Principle 4 – "The 120 unit-limit should only be exceeded temporarily."

There are two reasons for this principle.

    A. Maps are designed around the fact that each player can only summon 120 unit-limit worth of units.
    B. The game is only so efficient and exceeding the unit cap increases the chance the game will crash.

All summoned units do not bind power. Thus, a permanent summon's cost efficiency is limited by two factors:

    1. The cost of the summoner.
    2. The unit-limit.

As detailed above, summons do not generate ground presence. Thus, permanent summons are both more and less effective than normal units. Temporary summons have limited lifespans and do not generate ground presence. As such, they are more akin to spells than units and need not be restrained by the unit-limit as a balancing factor. This principle should be regarded more as a general guideline than a strict rule. Minor violations of the unit limit can be acceptable while unlimited violations are not.

Example:

Sunken Temple and Satanael have seen some play recently as their own deck archetypes. These exist because both cards can infinitely exceed the unit-limit and do so without binding power. As such, they become increasingly cost efficient without an upper-limit, except crashing the game. Also, both cause stuttering and crashes.

Principle 5 – "Power should only be produced from wells"

Battleforge possesses a complex and interesting power system which utilizes a standard power pool and a void power pool. Power is gained in one of two ways:

    1. Power starts in either power pool at the beginning of the game, or
    2. Power is gained via power wells the player built or with which the player began the map, these wells themselves then have a fixed number per map and fixed capacity per well, as determined by the map maker.

The flow of power is an important aspect of map design as a control on the progression and current strength of the player in relation to the map. PvE maps are designed around power wells, how fast they pay off, and how fast a player can accrue power. The fact that a single player can build all power wells while their allies take none is acceptable from a map design perspective because the power is still accrued through interaction with a power well. If the map maker wishes to discourage this practice on a particular map, the map maker has several concrete tools available, such as sectioning off the players from each other or creating divergent paths where it is more efficient for multiple players to grow strong.

There exist two cards capable of creating power, Thugs and Strikers, whose looter abilities are being removed. The problems which have resulted from the looter ability are directly connected to their violation of the principle that a player may only gain power through power wells.

Other cards exist which interact with the flow of power through wells.

One of these is **Resource Booster**, which drains a well more quickly, giving the player power faster but reducing the total amount of power in the well. Another is **Juice Tank**, which increases the capacity of any affected well. These are acceptable mechanics which can be adjusted easily due to their direct interaction with power wells.

A third card, **Energy Parasite**, skirts the line of acceptability. This mechanic still directly interacts with power wells, but the power well in question has been built by the opponent. This is accepted right now due to its importance in Pure Nature, but it is in no way a protected mechanic and may be deemed problematic in the future and removed.

A fourth card, **Decomposer**, allows one player to transfer their power into another player's power pool, in essence creating power for the player in question while destroying it for their ally. Decomposer, by transferring power between players, directly undermines the power well mechanic and the map design which accompanies it. This is a clear violation of the principle in question and is unacceptable from a game design perspective.

While this is only one of the issues with Decomposer, this issue by itself is sufficient to warrant the card being changed, independent of the gold-income issues Decomposer causes or the unfun playstyle it has encouraged among many average players.

Principle 6 – "Orb restrictions should not be bypassed."
A card which is acceptably balanced in one faction may not be balanced when used with another faction. Thus, a card's orb restrictions are a necessary component in balancing. Cards with strict orb restrictions, like pure cards, are typically stronger or possess unique effects which are meant to justify their high deck building cost. This means that any faction which can bypass orb restrictions must also be balanced around the inclusion of any possible card within that faction. As an additional factor, when these restrictions are maintained, players are encouraged to work together in their deck building to create unique combinations not possible within a single deck alone.

Example:
Batariel (red affinity) is not a card designed with shadow buffs and nature heals in mind. Enlightenment allows this possibility, which has led to a combination of cards which is too strong in relation to other options. This does not necessarily mean Enlightenment should be removed, but that as a second-class deck archetype, Enlightenment needs to be balanced in some manner that it can accommodate the existence of strong cards in first-class factions.

The design and balance of first-class factions should not be limited by the existence of cards like Enlightenment. Instead, Enlightenment should be balanced to accommodate the inclusion of any card.

Principle 7 – "Monuments should be available in accord with map design, not card design."

A player's strength at a given time is typically tied to two things: their current power pool and their current tier. A player's strength is thus controllable by the map maker by determining the resources directly available to them at a given stage in the map. Any time a card is introduced which bypasses the normal map progression by introducing access to cards of a higher-tier or through artificial monuments, the player becomes able to trivialize the map not through their superior skill and knowledge, but through a card which undermines the map's design. This principle is meant to convey that card design should not undermine map design. They ought to work in harmony.

Example:

Amii Monument allows T4 units to be used where the map is only designed to accommodate T3 units. There is also the infamous controversy over whether or not using Amii Monument on Soultree is legitimate, since it allows you to procure a 5th orb without interacting with the location of the 5th orb which was created as a required area.

Closing Remarks

The original developers from Phenomic were a small team with limited resources that created something special. Battleforge is a game that combines the RTS genre with the playfulness of a trading card game. For its time, this was a grand experiment and given the sheer number of cards it is natural that some cards are more experimental in nature than others. Some of these experiments worked, others have not been fully thought-through, and some cards are fundamentally at odds with the RTS experience.

The limited resources of Phenomic become even more apparent when comparing cards from the Twilight/Renegade edition to those of the Lost Souls or Amii edition. With little time for testing, mistakes were made and with a constant influx of new cards it was impossible to iterate on balance.

The game has much of its potential still untapped and we believe that the best approach is to treat the game as an RTS game first and a TGG second. By now, other games have copied the "RTS games with card-game elements" (Minion Masters, Command and Conquer: Rivals, or Clash Royale) and have shown that this formula does in-fact work.

However, there are many obstacles and intricacies in the way of seemingly "obvious" solutions. We want a healthy game for players to explore, but we are also facing technical challenges and a splintered player base. There will always be different opinions and because of this we decided we need this document to make our vision clearer to everybody.

This is just a start that covers our fundamentals for faction design and more concrete documents will follow. We want to analyze and discuss each faction in particular and shed light into our roadmap.

Stay tuned,
The Skylords Reborn Team