

TF2

(That's right, a title page)

Author Background

Because this paper is inevitably going to bring up questions about the qualifications of the author to speak on this topic, it's important to state up front my background and experience, so that my comments and observations are put in context.

I am known online by the handle Chro. These days, I'm most frequently found in-game playing Team Fortress 2; I am also a regular forum poster over at the www.teamfortress2fort.com forums. My experience with this style of game play goes all the way back to the mod in Quake 2 called Weapons Factory – a player created mod based on the 9 class system (expanded to 10). Because Weapons Factory was created, maintained and updated for 7 years for free by the players themselves, so I'm not easily swayed by the 'Well, TF2 updates are free, so you can't complain' argument.

I've played the 9 class system for about 11 years now. I'm very familiar with the game mechanics and how everything interacts. I've mapped for Quake 2 and TF2 and, while they were poorly done maps, it allowed me to see what technicalities go into map making, map design and optimization. I understand the pain mappers go through for a finished playable map, as well as the time and effort to get it played by the community. I was a CEVO admin, and though I'm not an admin at this time, I still talk often with the regular admins and the higher ups in other NA leagues about the game and changes. I was an admin when the sandman was banned from league play – a decision I supported. For those who think leagues ban weapons or don't use maps simply because we hate change, that is simply incorrect, as I was present for those discussions and am aware of the pros and cons of the debate.

Most of the people reading this will be stopping about here and then posting I'm a loser, nerd, elitist bastard, and so forth. Trust me, I know and I've heard it all before. However, I challenge you to read this whole paper and really think about the arguments I present. This paper is my attempt to influence the direction of a game I feel passionate about. So Valve, if you need some ideas on a new game or need to fix current ones, play testing or whatever it may be, just respond to the email I send you.

Introduction

As far as this paper is concerned, I will leave league rules and general competitive vs. casual topics out of the picture. The focus of this paper instead is to examine several elements of TF2 and provide my opinion on what I believe Valve has done well, and what I believe could be improved upon.

This section will focus on several different topics. The first topic discussed will revolve around the issue of class design. Next I will touch on the topic of player control. Then I will discuss the mechanics of the unlock system and I will conclude with a look at Valve's approach to designing and testing new class-specific weapons.

Principles of Class Design

In TF2, Valve has categorized each of the 9 classes as one of three possible roles: offense, defense or support. However, I believe that model is completely false and should not be referenced as what a class should/shouldn't be able to do. This was a misconception on Valve's part when trying to make the game easier for casual players. Any class can be played in a way to fit into one of those roles - the notion of the "pocket Soldier" is focused on defense/support of the team Medic, for example, and many a team has been surprised by a crafty Engineer with an aggressive and offensively-focused play style.

This game is not rock-paper-scissors. I believe that classes should not be designed to counter other classes on purpose, nor should there be anti-class specific weapons in this particular game. More important when examining a class is to look at its designed weakness and strength. Weaknesses are more important than strengths in terms of class identity. This allows two classes (Soldier, Demo) to have the same strength but be completely different because of their weakness. If one's strength is in an area of another's weakness then so be it, that's the game.

To illustrate an example, Pyros do not directly counter Spies. The flame thrower is a strong close ranged weapon that sets people on fire. It just so happens that disguises and cloak is ruined by it, since the objective of both of those weapons are to allow the spy to get close to his victim. However, there is always a fighting chance - just because one Spy isn't skillful enough to avoid the pyro's strength doesn't mean others aren't. The player who plays spy need not switch classes to counter the pyro. He only needs to be aware of the Pyro's strength - close combat - and adjust his tactics accordingly, perhaps taking advantage of longer range weapons like the revolver or Ambassador pistol.

This same logic can be applied to other class pairings. Scouts are fast and are hard to hit, it just so happens the Engineer has a sentry that never misses. Now the engineer is balanced in other ways to make this a fair fight most of the time. Same with Demo/Scout and other areas where people think there are 'hard counters'. It is not about picking a specific class to face another class, so I feel that "counter" as it is used by people in the TF2 community is the wrong term to apply. Rather, with any class, it comes down to skill, which includes aim as well as position and tactics. The scout doesn't counter the demoman; he applies proper tactics that utilize his class strengths and exploits his opponent's natural weakness. He got in his face, made him take self damage and then killed him.

There is a limit to one's strength and weakness, however. I estimate a ratio of 70/30 should be the best/worst possible chance for one class to beat another. If it's any more than 70/30 then a reliable 'balance' must be found. If it gets higher than 70% then it gets too close to a class always countering another, if it gets too close to 50% that strength really isn't a strength at all. An important factor to this ratio is skill; you must have someone of the appropriate skill level to see the correct difference. Maintaining a proper best/worst ratio is crucial in order to keep play dynamic. A multiplayer FPS would get old if one weapon/class always beat another. No one wants to play a game where one class beats another all the time, we want to be the underdog and beat the big guy, and this system enables it, since a player with the proper amount of skill has the chance to overcome the mismatch with good play and tactics. The system should be structured to optimize dynamic play, so that each fight is different and can change per player, per weapon, per map and per class.

Player Control

Another hotly debated topic is the issue of taking away player control, and when should it be used. The answer to the question is: just a little bit and even then it has to be at a large risk. Full control must never be taken away, nor should movement or control be taken away for extended periods of time. Movement alteration (either bouncing or something else) needs to follow some simple rules. It should take some degree of skill; the less skill needed, the more dangerous of a situation it should require the player to be in. It should provide a short advantage (time wise) and in this short time players must be close and react very fast to take advantage of it (skill). Moreover you need to be able to fight back before and during by shooting or changing your movement. This will keep players from approaching you or at least make it harder for them to stop your movement. Nonetheless you have a small fighting chance.

This system was, for the most part, implemented correctly for most classes. For example, the pyro's airblast requires close proximity to the target, and the target can still fire on the pyro while being airblasted. Soldiers using rockets to juggle their opponents must have a degree of skill in order to be consistent. Demoman must wait the allotted time to detonate and need the player to either jump on or be very close to the sticky. Heavy's Natascha requires a slow class to be somewhat close to you, keep focus on you the entire time and also sacrifices the Heavy's primary strength of damage to do so. However, the Scout's sandman breaks all of these rules: it is a fast arching projectile (easy to aim), it doesn't take away the class's main attribute (scout still has speed), requires the scout to take little-to-no risk to himself to use the weapon, and most importantly, makes the target completely unable to fight back. I cover this problem more in-depth in the scout section of this paper.

The Unlock System

It is odd that Valve spent several updates working on improving the achievement-based unlock system – going to so as to tell Shacknews that they “nailed it” with the scout update – only to completely abandon it during the Sniper and Spy update in place of the poorly conceived random drop system. This idea was a total failure, because it took control away from the players and forced them to wait an arbitrary amount of time to be able to get the unlock they desired. Some players instantly got new weapons for seemingly no reason, while others were left with unlocks for classes they didn't play (or had already unlocked). It personally took me 4 days of idling to get a new weapon. The worst case I saw was a career Sniper that idled every night in hopes of getting the huntsman. After over a week of not

receiving a single sniper unlock, he was to the point where he wanted to quit the game out of frustration.

Valve needs to understand this one thing: if there is a system out there and people can get something from this system, they will find exploits, bugs and ways around it. There's nothing you can do about it because of custom maps, source plug-ins and just good old human ingenuity. So, changing the unlock system just to avoid some players feeling like they need to "farm" achievements seems like a futile gesture. Ironically, instead of encouraging people to play the game, it forced a lot of long time fans to resort to creating "idle servers" – they left their machine on and did laundry or watched TV, while they waited to get a decent unlock dropped to them.

As far as unlocks are concerned, keep the achievements. The system worked, the players had control over when they could earn their unlocks, and they received unlocks appropriate for the class they chose to play. If Valve's plan to make a crafting system or a modded weapon system in this game, which it looks like they are, let the players have full control over the drop rate and customization. Also let them have a large and direct effect and make it visible that they are having this effect. It's great that they want players to customize how they play but it's going to suck if they completely stop players from playing how they want to play – especially if it's only because they're not lucky enough to get the drop or craft it properly.

Valve and Gameplay Testing

The worst part about the last update is it confirmed that Valve did not properly test things out before releasing the update. I don't understand, but all I know is that if I made such a huge system change at work and didn't have a back out plan that I could implement immediately I would lose my job. Valve may not like the fact that people idle but I don't know why you would invent a system where it's possible for someone to never get an item. I'm not mad, I'm just disappointed that they would release it and then immediately go on vacation. Just once I'd like to see someone from Valve admit their mistakes on the blog instead of making players wait on a 3rd party source, or implying that the fault lies elsewhere. Just something simple such as putting up a post saying, "The unlock system is bugged but we're working on it," would show players that Valve actually cares. And really, that's all we want, Valve. You could easily get a couple competitive teams who will take full advantage of every weapon and test it for a couple days. Yet you hold this idea of secrecy so close that you'll sacrifice updates and players to keep it going. Hell, just run the idea by everyone on the blog and see what happens. So many mistakes could be avoided with a few smart play testers.

I'll get some flak for this idea, but I believe that when making a game mode, map or unlock, it should be balanced for competitive play instead of being focused on casual players. The reason you make weapons for competitive play isn't because it's a better way to play or because we're elitists. The main reason is because competitive players will show the real potential for a weapon. The only difference between competitive and casual players is skill and teamwork. If it's unbalanced for competitive play then it -will- be unbalanced for casual play. You'll notice my sandman argument ignores the fact that it 'breaks' competitive play. Instead I describe its effect on skill and team work. It will just take casual players longer to work together and understand how a weapon/tactic is overpowered.

A simple argument is this: the only way to create a game that can live past the 5 year mark is to have a fundamentally sound game that allows players to enjoy themselves even as they rack up game

time. Gameplay at the 300 hour mark should be just as fun as game play at the 3 hour mark. A new player may join and say the rocket launcher is too weak of a weapon and it needs more damage and larger clip size. Even casual players will say that's wrong and you just need to get more experience with the weapon. By focusing on competitive players – and hopefully by involving that community more in playtesting new updates – you are most likely to capture the perspective that will help Valve's designers create weapons that still make sense for players who have been with the game for years.

This would provide the game with fun, creative, balanced and most importantly useful unlocks. The newest unlocks are a prime example of this. Jarate, huntsman and the ambassador are creative unlocks that greatly changed the game but are balanced and useful. The fact that jarate – which is basically a jar of urine – is permitted in competitive league play demonstrates that the various leagues don't fear change or whimsical ideas; they merely dislike weapons that upset the crucial balance discussed earlier in this paper.

Maps

As most of us know, CTF is close to dead in competitive play. I'm a fan of the mode but it simply doesn't work in this game because of map design, engine restraints, incredibly slow paced and class balance. Just too much would have to be changed to make it work. The focus needs to be on linear CP, PL and A/D maps like gravel pit.

The single biggest change in map design that helped this game was a move away from choke point intensive maps. Badwater was a great example of what a PL map needs to be, open track with multiple flanking routes. One single alternate route isn't good enough, as Dustbowl/Goldrush prove. You need multiple routes that have equal or more of an advantage tactically, or the map stalemates. The lower or 'water' route in Dustbowl and Goldrush provide nothing for the attacking team except an easy way to die.

Attacking uphill in this game is incredibly difficult. A good example of this can be found by examining Fastlane. Everything comes down to the CP1/CP2 connection. The uphill battle out of main route to CP2 makes it incredibly hard to get out. The health/ammo pack on the ledge gives even more of an advantage to the team pushing from CP2 to CP1. Because CP2 is difficult to recapture from CP1, teams tend to "turtle" and concentrate on defending CP1 instead of attempting to push back out. Maps should not promote getting rolled, but nor should they encourage players to stand still. What they should do is promote a fight at every point.

As an example of how to fix Fastlane, I offer the following suggestions. I'd remove the ability for players on the catwalk to fall down directly on the doors. Next, the top route out of CP1 needs a larger exit to CP2. I would say make the exit a large open balcony a little further down from where the current exit is and make the current exit a window. Expand the catwalk to wherever the new entrance is. Lastly there needs to be some connection, a one way drop down would work perfect, from the top exit to the bottom side entrance. This allows players to move forward but removes some paranoia of getting back-capped. Some may question making CP2 easier to take for the defending team, instead of making CP1 easier to capture. Making CP1 easier to capture it would encourage rolls. What makes CP1 so hard to capture is that players are afraid of being back-capped or killed on the way out. This makes them hold at CP1 with all their life. If you make taking CP2 easier than teams will try to take it. This gives a better

chance of mistakes or countering and then taking the point. Either way it keeps the game moving and gives teams a better chance to have an even match.

I won't go over each map in detail, but hopefully I've given a flavor of some of the basic tenets of designing well-balanced maps. As one final small technical note, I would like to observe that there needs to be an advanced option to remove the stopwatch and level dialog when playing a map. I know there's a setting for it to go away after playing the map 50 times but the stopwatch dialog stays no matter how many times I play it.

Classes

In this section of the paper, I will go over each class briefly and say what their strong/weak points are and how the unlocks should effect that. I'll provide some balance ideas for current load outs as well as new alternates with reason behind them. Valve should not take the easy way out and address a 'need' when making a new weapon. That will create less versatile weapons that fall short of the current ones. This main idea for unlocks should not be to cover up a class' weakness or give them a new area to excel in that's covered by a current class already. Instead, unlocks should extend a class' weakness/strength in exchange for power, versatility or unique ability. I must make this crystal clear right now, the important part of this is not the unlocks themselves but the how these weapons further the idea of the classes' strengths and weaknesses. They are simply examples of the direction unlocks should go.

Scout

The Scout is arguably the only class that's borderline overpowered in this game. A lot of players will argue that point but if you observe the most skilled players you start to understand that matches are won and lost based on the Scout. They are the most consistent and versatile class out there, because of speed, agility and having one of the strongest guns in the game. Further evidence of this is supported by Valve's unlocks. They were simply scared of unbalancing the class in the right hands, so they did what they usually do and listened to the casual crowd to make them stay quiet. What happened next was three poorly made unlocks that try to cover up the Scout's weakness by removing his versatility for very situational weapons.

Force-a-Nature: I know of few scouts that use this gun to play seriously. Can inflict a fair amount of damage and is great for ambushing. Most try to go for two point blank shots to kill but the strongest point of this gun is to hit the enemy enough to juggle them for a perfect point blank 2nd shot. While the gun provides a semi different play style by forcing you to hit and run it falls short of the scatter gun because of the reload time and clip size. There's no point in trying to hit and run when you can just run over players with 6 shots from the scatter, not to mention how much better it is at medium range. The extra jump while nice plays little use in combat.

Alternate: The FaN play style is just too similar to the original. Scout needed a different way to do his job. An assault type weapon with a large clip size would be perfect; the nail gun is a good example of that kind of weapon. The main use of this gun would be providing covering fire in the main force of the fight and excessive harassing on the flanks, while still being able to charge a weak player when opportunity arises. The problem with an assault type weapon is that you have to make its harassing

ability on par with the scatter gun's 105 damage per shot, but it would have to be one very annoying weapon to be used over the scatter.

Bonk!: One of the more useless weapons in the game, its main job is to get through choke points but the scout can still be bounced or body blocked by anyone. The slow effect afterwards almost guarantees death in most situations. It has a few useful times; distracting sentries and the start of gravel pit are the main ones. The problem with that, however, is that the enemy can still ignore the scout and kill the allies he's attempting to block for. The other problem is that Bonk! Falls short of the pistol because of how situational it is and how other classes can complete the same objective in a faster, easier and more efficient manner. A Demo or Soldier can take out most sentry locations; with an uber the Pyro and Heavy can also serve as a more effective sentry-stopping class. Sentries are too easily countered to lose a useful weapon in replace for a situation specific tool.

The other times are when you can get away with it, but the situations have to be setup pretty well to get away alive. You need a corner to turn and drink and then an exit or teammate to escape to by the time it wears off. Pyros, Demos and Soldiers can bounce to make it even harder to get away. It can be used to body block an uber with it but the scout is much more useful running away then simply returning after the uber expired to take out the enemy medic instead of merely buying his team 6 or so seconds at a specific choke point. It also forces the scout to sacrifice his only long range finishing weapon.

Alternate: I understand why Valve did this; while the pistol is a hard weapon to replace they have to remember one thing. If you have the option of running away and living or killing someone with a chance to live or die, the more useful weapon is the one that lets you kill. There are two ways to survive, kill or run. In most cases charging the enemy to kill them is best choice. You shouldn't cover up a class's weaknesses, what you should do is provide an alternate weapon with the same weakness that lets him get the job done.

Sandman: The hottest point of debate when talking about the unlockables. I'll try to explain why it's banned in most leagues; hopefully this will clear up some of the debate. First up is the weapon itself, is it balanced? Is stunning someone at range, leading to their death most of the time an acceptable trade off for double jump? I would argue no, because the double jump is not the scout's key ability. A fair trade off would be the scout's key asset of speed. Make him the speed of a demo for such a strong weapon. A good scout can still run over a team and hit and run easily with just one jump. You can try it on most CP maps for yourself and see how powerful you still are. Secondly let's look at the class as a whole. Scout has one of the strongest primaries in the game, can pick when and where to fight, cap twice as quick and has extra speed to dominate health and ammo packs. Should the scout lose none of this, for a melee replacement, to fully stun players and cause their death? Again, I say no. The scout has the advantage in most every situation when played correctly and in the right hands he can dominate an entire team. The last thing he needs is a long ranged stun so he can kill yet another player or help someone across the map. The scout has speed, so use it. So now the weapon isn't balanced nor is the class balanced when using the weapon, so let's look at the stun mechanic itself. In regards to bouncing, airblast, rockets, stickies/pipes you always have a fighting chance. You can get away from all of these with skill before and during the bounce. You can have also avoided the situation all together in most areas if played properly. Each class must also be very close to you to do this, putting them in danger. There's a sense of risk with all of these movement restricting abilities. The scout does not have to be in danger to use the sandman; he can sit back and not worry at all. He can also pick and choose where to use it and follow you if necessary, remember he picks the fights with his speed. Stun doesn't just effect

movement, it removes your ability to fight back in any way and when playing a skilled team you're dead. Even if your team tries to come to your rescue you're being forced into a specific area because of it. Taking a bullet, rocket, headshot and whatnot for someone sure is nice of you but if you die then the sandman still caused the death of someone. So great teamwork guys, you're still a man down.

Replacement: I have a couple ideas for alternates but the problem isn't with this weapon, it's with the original bat. The original bat is useless (can reload scatter quicker to do more damage) so any new bat that does anything aside from damage will have to have a drawback to the overall class instead of just a balance act of the weapon itself. The introduction of mini-crits may save this weapon, but you still fall into the pit of weakening scout overall to do so. Make it mini-crit for 5 seconds if hit by ball, or 10 seconds if hit by the bat, bat itself does 10-20 damage. Drawback could be an overall damage reduction of 10%, 10% speed reduction (from 133% to 120 or 123%), loss of double jump, loss of double cap speed. So unless you want a generic slow attack speed weapon for more damage or want to keep the bat and ball mechanic then there's going to be an overall nerf to the class when using the new bat.

Soldier

This is the class I have little to no input on, because the class is so well balanced already. This is the model of a perfectly balanced class, and with the unlocks coming out soon that requires Valve to be extra careful. Be too afraid of doing something and you'll get scout unlocks, reasonable but too weak in comparison to the original weapons. Go overboard and you have a power house class that can dominate too easily. My only plea to Valve here is to not make something gimmicky and go with a true alternate weapon. The key is to understand that the soldier's weakness is his strength, in that he has neither. He wins when he's at an advantage, and loses when at a disadvantage and has the ability to turn one into the other. This is a must for the soldier to stay who he is. If Valve tries to give him a new strength for a new weakness it won't work because the original weapons will be more versatile and versatility is the most important part of this class.

Rocket launcher: I hope that Valve stays away from something that bounces players more, if anything this should reward direct shots. Call it the patriot and have it crit or mini-crit on air shots. If you affect rocket jumping in any way (aside from less damage) there's a good chance it won't be used.

Shotgun: There has yet to be a strong shotgun alternate, this is because the shotgun is strong and versatile. The worst part about this unlock is how well the shotgun works with the soldier. The only suggestions I have for this is stay away from consumable or jarate/sandman mechanics of a one use then wait type gun. He needs something that helps him kill.

Shovel: I believe this is the least used melee weapon because the rocket launcher and shotgun close range combat is easily handled with either. I think if it acted like the heavy's KGB mechanic of 1-kill and get a bonus for some time would work well. No self-damage or falling damage for X seconds would be nice. If you wanted it to fit in with the theme and have it be funny just make it a different pair of boots that allowed the soldier kick for an attack or do slight damage to someone he lands on.

Pyro

The pyro is the most controversial class. Inexperienced players like it because they can easily get kills and veterans hate it because of the same reason. It comes down to people wanting to be rewarded for the time and effort they put into the game, but Pyro undermines this idea. There are little-to-no specific class skills or techniques you need to play this class, simple movements and knowing when to attack and when not to attack is all that's needed. Its close range power is 'balanced' by its lack of medium/long ranged weapons. It's a class that's extremely easy to pick up but has a very low skill ceiling. There is no small change that can be made to fix this 'problem'. So let's start with some bigger changes.

Flame thrower: The flamethrower can be improved in a way that will hopefully add some element of skill. Make the flames have the properties of a projectile, when it hits an object (building, wall, player, etc.) it will "explode" in a way that it will damage everyone around it with a small area of effect (AOE) – about one player width from center of explosion at largest reach. The AOE will do half damage of the initial hit, but still ignite victims. This small AOE will also cause the Pyro to inflict self-damage if he's too close, so if you use it on a wall it *will* fire unlike now, but you will also hurt yourself if you're too close to the point of impact. Players will not be ignited by fire until the 2nd hit instead of the 1st hit – in other words, if a player is touched by the flame for an instant they won't automatically light on fire in some cases.

I also recommend a different damage formula for the Flamethrower; currently it does 15 damage/unit at point blank, and 7 damage/unit at its longest reach, with the new formula it will do 10 damage/unit at point blank range, and 5 damage/unit at its farthest reach, but it will have a dynamic damage output that will cause the Flamethrower to do more damage the longer the flame is kept on the opponent. For example, if you hit an opponent with 5 units of consecutive flames at point blank range, then the damage would increase as such: 1st hit does 10, 2nd hit does 12, 3rd does 14, 4th does 16, and the 5th hit and beyond will do 18; at max falloff it'd stay at half (5, 6, 7, 8, 9). This means that with each consecutive hit the flamethrower's damage will increase in potency, but once you miss the target the contact damage will reduce in the same fashion, this will encourage players to be more attentive and making sure that the players keep getting hit by the flames. Under this model, the Compression Blast will also set the damage back to minimum values, and any critical hits will automatically set the damage up to its maximum, while critical flames should stay relative to their current values (about 45 damage per ammo). The other interesting part will be that it will take a little longer to kill light classes (Scout, Medic, etc.), but since the point blank damage would be 18 per unit (instead of the current 15) heavy classes would go down a little faster than before. It will also give victims of the Pyro attack a better chance of surviving, because as of now even getting hit by 1 or 2 flame ammo will devastate certain classes.

Backburner: While the backburner suffers a large disadvantage because it loses the airblast this weapon provides one huge advantage, and that's with ubers. It has no reload, plenty of ammo and crits on those who try to run away – nothing is better for close ranged areas. With the above changes there's a little more difference between the two primary weapons. The only other suggestion is a shorter weapon model, since it's possible to see a back burner model go through a wall so I know he's around the corner or just have the weapon model flat out in the middle of the path. There are ways to hide the weapon or just turn another way, but an ambushing weapon shouldn't need that type of work around.

Alternate: Since it's been almost a year from the original Pyro unlocks I wouldn't mind seeing something new that greatly changes the Pyro's attack plan. Valve said they would make multiples for each slot/each class and I hope they will expand the primary away from the flame thrower and introduce a short ranged napalm rocket launcher. Designed for medium ranged hit and runs, this weapon would allow the class to get away from the "bad at long range, amazing at short range" problem of the class.

Flare Gun: As of right now the flare gun falls short of the shotgun. There's multiple ways to do small buffs to make it slightly better. Choice one is make the flare gun mini-crit on burning players. Choice two is make the flare gun burn damage stack with the flame thrower burn damage instead of resetting the timer. The last option is to allow the flare gun to make the fire burn damage go faster on an enemy that's already on fire, along with adding an extra 20 after burn damage. Instead of 5 damage/sec for 10 seconds it would be 10 damage/sec for 7 seconds.

Axtingusher: Perfectly balanced weapon, what it should have been in the first place. Any melee weapon is going to have to be very strong or provide a very large bonus to be used in place of the flame thrower or shotgun. The only other idea for a melee weapon for Pyro that I can come up with is a very large axe, insanely slow to attack with moderate damage but would prevent the Pyro from being bounced as much.

Demoman

It's been a long road for the demoman, easily the most changed class since beta. Demoman is pretty much perfectly balanced. The main turning point wasn't the nerfs themselves but rather players and Valve learning his playstyle and how to react to it. Players learned to deal with him by closing distance, avoiding or spending minimal time in choke points, and, most importantly, not retreating in a straight direction. Valve learned a lot as well when making maps and is moving away from excessive or extended choke points. Those are the two biggest factors that balanced demoman and as soon as the majority of players learn better team work and tactics the demoman will die quicker.

There are a couple general glitches with the class that still need to be corrected, such as making pipes landing to the right of their cursor when fired close range. Often the demo hears the detonate sound but stickies don't detonate until he presses the button again. Lastly on a suicide with stickies all of the stickies should blow up. Currently if you have four stickies under your feet and four guarding a door and detonate on someone your four will do damage to you first, kill you and then make the other four stickies disappear. All of them should be detonated simultaneous when alternate fire is pressed, not just the ones that damaged you. The only general buff I would give the demoman would be a small buff to pipe bombs do they do 100 or 110 damage and increase the knock back. This would make the weapon more useful on soldier and buffed classes. It would also start a slow movement towards using the pipes more because it provides a greater deterrent to players on the ground or air with the increased knock back.

Since demoman has been changed so much since beta, this means his unlocks are easy to setup and while I have other ideas I think these are the better ones.

Pipe bomb alternate: One possible suggestion to replace the pipe is a ricochet grenade that detonates after the first impact, like in beta and the "Meet the Demoman" video. To counter the advantages of

this new weapon, it should suffer heavy falloff damage to the grenades. A long ranged shot should do around 30 damage; splash damage on it would be even less (5-15). This would prevent spam, because he would have to be somewhat close to do significant damage. Now one change would have to be made for this, grenades would have to retain at least 40% of their momentum after a bounce. This would allow for double and triple bounce hits as well as amazingly fun shots off the ground. The only other problem for the weapon will be displacements and the grenade's erratic bounce off of them. That's part of the fun and skill of the weapon though, so I'd keep it along with the 5 second detonation time. This would almost be a gimmick weapon if it wasn't still just as useful as the original pipe launcher. I would be extremely disappointed if this type of weapon isn't added as an alternate.

Stickybomb launcher alternate: The current stickybomb launcher is such a great weapon, if its alternate is any stronger players will demand a "nerf" on its stats. On the other hand, if you lower its versatility or power it's going to fail when compared to the original. Now the pattern has been an off-shot primary weapon with a totally different secondary. The pattern must change for demoman because of how reliant he is on both weapons. The alternate should be his original sticky bombs. The stickies cannot be destroyed, hard to push around with weapons and have the original damage ramping mechanism. The trade off will be a longer prime time before detonation. 2.5 to 3.0 seconds before detonating them would be long enough to make them useless in direct combat but still quick enough to setup a trap.

Bottle Alternate: I'd keep the bottle theme for an alternative melee weapon. Valve can be creative here, or could do something as simple as changing the bottle of whiskey to a bottle of wine. The idea of this weapon would be based on control points. 100% crit directly on the CP/Payload or vs. intel carrier. -50% damage anywhere else. However, because the demoman relies on his bottle so much, there would have to be additional benefits to using this weapon. I recommend allowing taunting or hitting the CP/Payload/intel directly to reset the timer/capture progress by 30%. This ability should only be able to be used once per demoman, per objective (until an enemy touches it again) in order to prevent spamming on an objective.

Heavy Weapons Guy

On paper, the Heavy seems like a very well balanced class, but in practice that is not the case. While there is a slight problem with the class itself, the bigger problem is all the other classes getting unlocks that capitalize on his slow movement. Axtinguisher, Bonk! (standing directly in front of a heavy will force all his shots to hit you and not your team) sandman, huntsman (when not over-healed), jarate, and the ambassador all make it difficult for the Heavy to face classes he should normally have an advantage over. The Heavy also suffers from focus fire and the usual problems. Being dependant on a Medic is one thing, but his dependency robs your team of that same Medic. A Medic straying off a Heavy to help his team can almost ensure the death of the Heavy from focus fire. Heavy is also the worst class at picking when and where to fight. He's very dependent on the enemy right now and we want to move away from that. Being a slow class and having to pick the right fights is one thing but to leave it in the hands of an enemy, not a good design. Even when getting healed, two Soldiers can pin down a Heavy quickly. This is one of the reasons, aside from speed, why the Heavy is rarely used in competitive play.

His unlocks were poorly done. Valve again made unlocks to try and cover the Heavy's flaws. Natasha, when working properly is somewhat of a viable alternate. Most will say it encourages teamwork, but if the other team has just as much teamwork then the Heavy will die because he is unable to pump out enough damage before getting killed. There are two ways to get a class played:

either buff it and provide better unlocks for it, or make an environment where its strengths are seen more. This would also have a positive affect on two other classes, since buffing the Heavy would mean Spy and Sniper might need to be run more to counteract him. League players use what works, so let's get three classes played more with these simple changes.

Natasha: A decent alternate, takes away some damage for longer ranged support. Then again any damage is pretty good support, sometimes killing the enemy 25% faster is the difference between your Medic or ally living and dying. Sure the lower movement speed may cause his death afterwards but the damage was done. The worst part about Natasha is if the enemy is looking for a fight, slow movement speed on a demo, soldier or heavy doesn't matter at all. They are all coming directly at you and with your lack of fire power there's a good chance you'll die. Nonetheless, this weapon has its moments but is less versatile. You'll see it used here and there, but it falls short overall.

Alternate: My idea here is to make a 3rd minigun, in order to not remove all the work done on Natasha. If it's overpowered when multiple heavies are around then only allow it in tourney mode. Again, follow the main idea of the class based system on the idea of larger strengths and deeper weaknesses. This new minigun should increase his movement speed to that of a soldier or demoman, and would take the same time to rev (.5 seconds up, 1 second down). To counterbalance that, there should be a longer cool down time and he should be unable to move when revved up or is firing the weapon. It should work like the Huntsman mechanic where he cannot rev up when jumping or in the water. Being bounced or pushed off a ledge wouldn't cause him to rev down. If playtesting reveals that he's still too powerful, the gun could be modified to do 10% less damage. This forces the heavy to pick the right fights, just like now, but without an easy back out plan. The speed increase ensures that the Heavy would more easily be able to actually reach the fight while it's still in progress.

Sandwich: A good idea, but implemented wrong. It's not just 4 seconds to eat a sandwich, with no shotgun you have the minigun out. If you calculate the time to actually get the sandwich out and consume it - Rev down (.5), switch weapons, taunt to each the sandwich (by passing the .5 weapon switch delay) (4), switch to the minigun (.5), rev up (.5) - we're looking at 6 seconds to eat the sandwich. This is way too long, causing an already slow class to be even slower than before, and forcing a period of vulnerability where he's probably going to get killed by any enemy that comes along. It doesn't make him any less dependent on the medic. I'll say it again, the shotgun is a great weapon and not easily replaced.

So what can be done to make it a good alternate? The simplest solution I can suggest is for Valve move the sandwich to the melee unlock slot; it may see some use if it's there. If Valve wants to keep it in the shotgun slot then it must be buffed. Keep the sound of eating the same but halve the distance it can be heard. Increase the heal to 150 or 160 hp in the same time or allow the heavy to move while eating. Another solution is giving the 50% reduced damage buff to the sandwich when eating it, though there may be some pretty good exploits of the system if teamed up with a medic. This last solution is to make the sandwich easier to use and these should be implemented no matter what. Remove the weapon switch delay with the sandwich and allow players to press attack again to stop eating instantly but also allow them to constantly eat until they press the attack button. This shortens the time spent eating by a small amount when needing more than 120 hp, but allows the heavy to pick up and leave if he eats in a bad spot or only needs 60 health. Again, this weapon can work, and even now it has its moments but not enough to consider it an alternate. Options are good, but our options must be equally as good as the original else they really aren't options.

KGB: Melee with heavy is rare, even more so to get a kill with melee heavy, *even more* so when you're attacking 20% slower than normal. The solution may sound a bit extreme but the nature of the heavy and meleeing in general demands that the KGB receive even more of a buff. First, the fists must be buffed so that it's more of an option. I would suggest that it eliminates the weapon switch delay for the heavy. This would allow a rapid switch to the shotgun, lessening the dependency on the enemy. We want to try to leave it in the players hand as much as possible. For the KGB we would remove the reduced speed and make it +20% damage and keep the 5 seconds of crits. With 65 base damage, that works out to a very reasonable bonus of 78 damage. These changes will provide a distinct melee or weapon focus option for heavies.

Engineer

Personally, this is my favorite class. Nothing is better than a level one sentry to distract and taking out soldiers with the shotgun. The use of teleporters in arena may be the funniest yet most challenging tricks in the game. If it works it's priceless. Engineer should be such a fun and cunning class yet most players make it mindless and static. This is due to the fact that equipment takes almost 3 minutes to set up, but can easily be destroyed in seconds. One uber or a skilled spy and everything is gone. While the level 3 teleporter and dispenser was a welcomed change, it provided more busy work than anything. In my mind they should be level 2 by default simply because of the insane time you have to put into it. The single largest flaw to the engineer is that you have to build behind the main area of conflict. Aside from being dependent on the map and ammo layout, you are further leaving your team down a player hoping that they lose the point so your buildings are worth something. If they take the point you destroy everything and rebuild. Currently the engineer doesn't help you win, he helps you not lose. There is a key distinction between 'not losing' and 'defending'. Any class can defend and then immediately go on offense. Not losing means the engineer helps defend but has a hard time getting momentum on offense. Some changes need to be made to help the engineer in general.

- 1) Buildings build with full health instead of gaining it slowly
- 2) Buildings can be built in spawn (IE Junction)
- 3) Destroying one teleporter does not downgrade both
- 4) An option to remove the automatic voice commands when building

Now, you're all thinking you can build a level 3 tele in spawn and it will never be downgraded. Yes, that's the point. Now having an engineer by default will stop spawn camping. There are ways to deal with spawn camping currently but why not use this as a point to promote a specific class? Engineer is the only one that can fill this role. Not only that but after putting 26 seconds (at best) into a level 3 building it should be this useful. Now the teleporter is a high priority target and cannot be overlooked by enemy opponents. The engineer may want to build it close and have it risked all getting killed or he can hide it hoping the spot in the corner is innocent enough. There is still a need to rebuild when his team captures a point, along with the 20(10) second build time.

The alternates in this case should be catered for a nomad engineer, changing locations every time an enemy attacks either because he wants to or because he has to. The alternates should also not be tied to each other – in other words, don't tie a specific shotgun for a specific sentry or anything of that sort. People should be able to customize as they wish. Valve can make one gun work well with another but they should not force a particular load out on a player. As for the load out screen just add the building PDA to it and have a user select that and then pick what he wants.

Smarter readers will say this is going against my idea of not covering up a weakness. However, in this case, I believe that the original designed weakness of the engineer is far too severe. The current weaknesses of the class has too much dependency on his buildings leading to a 'turtle' mentality. The sentry and engineer need to work together; the engineer should not be letting the sentry handle all the work. A nomad engineer would still dependant on his buildings, but those buildings would be quicker and more expendable instead of powerful and time consuming.

Shotgun: Honestly, I don't care about the shotgun replacement. The original shotgun is very powerful and has yet to be replaced correctly. I don't know if a viable replacement will ever be found even if Valve did implement one of my suggestions. This is the engineer's bread and butter, make it weaker or gimmicky (too situational) and it'll never be used. The only general idea I can come up would be granting more pellets per shot, but less damage. This would allow him to clear sticky fields with ease, giving a more active support role instead of purely from buildings.

Pistol Alternate: The pistol alternate that I envision is a small solution that allows the engineer to stay out of harm's way as well as encouraging the enemy to leave him alone. I propose that the alternate be a western style 6-shooter. When I think of the 6-shooters I just don't think of the west, but I think of trick shooting. This pistol would have the ability to ricochet off walls once, but would suffer a damage penalty when doing so. 6 to a clip, 24 reserved ammo. It will do 40 damage close range, 20 medium range, 10 damage long range and -25% damage after the initial bounce. It would have a set rate-of-fire unlike the current pistol. For kicks and giggles I'd remove the weapon switch time for this weapon allowing the engineer to react quickly and providing the obligatory achievement called 'quick draw' where you kill a spy who has the magnum out. Thematically, the 6-shooter fits well with the Texas background of the Engineer.

Wrench Alternate: Now most will think this is a stretch, but his alternate for his wrench should be a rail gun (I don't think it's as far of a stretch as Jarate is). It will be long range, 1 shot clip, 15 ammo reserved, pin-point accurate that repairs (40%) buildings with an attack speed 50% slower than the wrench. (1.5 seconds) It doesn't do damage but rather takes 20% of the reserved ammo away from players and giving 40 metal to the engineer. With this gun the engineer can roam freely and still repair his equipment but removes sappers at a 50% slower rate. While the engineer wouldn't be able to save 3 sapped buildings (one would explode before he had time), he would still be able to take off the other 2 sappers from range. This would also reduce the amount of time an engineer can help build a building. For those are skeptical and want more details, this idea is actually taken from Quake 3 weapons factory arena; look up the iron fuser if you want to see how that worked.

Sentry Gun Alternate: The sentry is both the cornerstone of the engineer and is the most easily countered in most situations. It's very powerful on defense and if given time it can really help offense. The problem is in a fast game the gun won't get built or will be taken out when its level 1 and/or flanked incredibly easily, especially if under attack by a soldier or demo. Instead of covering its flaws up, let's deepen them in exchange for something else. It would build in 5 seconds at double the repair cost, metal cost of 120. I would decrease the speed the sentry turns by 50 %, allowing it to be flanked even easier and unable to cover two choke points. However, to compensate, I'd have it lock onto enemies in front of it instantly. Next, reduce the damage done by 30% or so, increase the health by about 40%, cannot be upgraded and the result is a modified version of the level one sentry that's pretty low to the ground and makes no noise, including the initial build noise. Now we have a gun that cannot kill very well but can weaken, distract and hold a flank. More importantly it's an aim-bot. It's the flaw of

everyone in the game, air shots. All classes need a fair amount of time played to hit air shots and even then the best still miss. Now we have a class that can shut down the air on a specific flank, something no other class can do very reliably and provides a new niche. This changes the engineer's role from holding a large area to area denial of a specific path or flank. It's not designed for A/D or payload but can still work when protecting specific routes, but is a very viable option in CP.

Dispenser Alternate: A portable medic and metal generator is a powerful tool, so any unlockable is going to have to be pretty good and versatile to replace it. I propose giving the engineer the ability to construct a wall, tall enough to jump over and has 220hp, that costs 70 metal, and cannot be sapped. The engineer can only have one up at a time and the wall would obtain its texture from walls/floor around it. It can be put at the base of a sentry allowing the sentry to shoot over it, but stopping explosion damage from reaching the sentry (including stickies and flame throwers). While crafty engineers usually used ally engineer's dispensers to serve this purpose, this would be stronger and quicker to put up and would be intended to take damage, versus the dispenser, which must serve other objectives. Players that are accurate can still attack the top of the sentry to damage it directly but provides some defense if the player is taking some damage or getting pushed around. The last optional idea is that it would do damage in a small AoE when manually destroyed, providing a short 'rocket' jump to get to better sentry locations.

Another great use of the build-a-wall would be to fully block a stairway. Players would not be able to jump over it when down a step so it will have to be blown up, creating an impromptu alarm. It can also cover flanks and provide general annoyance in most choke points. It can also provide a shelter for ally snipers, medics or heavies. Careful readers will remember I wanted a low to the ground sentry for the alternate so this won't work well with it, or will it? There's always the sentry trap where you put a dispenser in front of it and then destroy it when an enemy walks by (medic is usually behind the pack so he gets targeted first). This would be the same way except can be setup quicker and can blend in better than the current buildings. Lastly it can be used to help a retreating engineer by building a wall in a choke or putting the building up right as a rocket is about to hit him, it's possible with a dispenser now but you'll expend a lot more metal. It's incredibly versatile and expendable and can be put up with a sentry immediately because of the low metal cost. Players will have to think a lot more to get a lot of use out of it but would provide an interesting change. Some may see this as a horribly bad unlock, but in the right hands of a cunning bastard I think it will be great.

Teleporter: With the basic engineer changes it will be hard to replace this, but instead of a long teleporter distance it should allow for shorter and quicker teleports, mainly for reaching higher ground. I would also give it the ability to be shot or thrown a very short distance, allowing him to provide a tele-flank. Once such use would be the well windows at courtyard or the mid field balcony during setup time, a quicker way to get on gravel pit B roof (maybe even A) or simply allowing for an unsappable spot for an exit.

Medic

After the initial updates nothing much needs to be changed with the medic. Medic is easily the most important class in the game with by far the biggest game-turning ability. A few changes need to be made to the original weapons as to make the alternates less of a replacement and more of an option.

Kritzkrieg: After it was boosted to +25% charge rate it became the best alternate the game has to offer. It's a great surprise tactic and can devastate an entire team easily, at the same time if not used properly it's completely useless and will most likely cause the loss of the current CP you're fighting at, if not the entire round. Nothing needs to be changed here, kudos to Valve.

Needle gun: The Blutsauger is perfect where it's at, what needs to be changed is the original. Since we don't want battle medics running around I'd avoid extra damage or more/less ammo. The simplest and most elegant solution is giving the medic a faster health regeneration rate of +2 or +3hp/second or a slow fire-immune hp increase. This would actually force a difficult choice of whether to pick the needle gun or blutsauger, which is what we want.

Bone-saw: Ubersaw destroys this weapon, one hit, even if not a kill can completely turn the tide of a game. Again, like the needle-gun we don't want to add/subtract damage or attack speed. It needs to have an overall bonus to the class because the medic is not dependent on his weapons nearly as much as any other class. Even for those pseudo battle-medics out there, a better melee weapon wouldn't help you at all... I've tried. If you want to stay in theme with my needle update then +5% charge rate would do nicely. It would speed up the game a little bit as people are not waiting on ubers, would also allow counter ubers to be built up faster giving the team down a better chance to roll the other way. It gives the same trade off as before, one big risky burst or a small steady buff. For the number crunchers that's 2 seconds faster on uber, 1.5 seconds faster on Kritzkrieg. Small increase but I've seen people die with 95-99% ubers on a regular basis.

Sniper

Nearly as perfectly balanced as the soldier, little to nothing needs to be changed with the sniper. His obvious strengths are medium/long range combat and weaknesses of direct fights. I would say close range is one of his weaknesses but a skilled sniper can headshot just as well close range. I can say nothing more about the class, it's a very simple and easy class to balance and his role is straight forward.

SMG: A lot of people complain that the SMG is underpowered, but I don't agree. In the right hands it can be very effective; for example, it can be used to snipe a person who you've hit with an arrow clear across Fastlane mid. The SMG is meant to be used as a finishing weapon, not as a stand-alone killing powerhouse.

Huntsman: Kudos to Valve on this alternate, this is everything an unlock should be and more. It's perfectly made; I can do nothing else but praise this weapon. While players who main sniper tend to shy away from this weapon, any old school quake player will have a blast with it. It's a perfect balance of faster and closer support in exchange for being a projectile with lower max damage. It really does remind me of leading a target with the rail due to 200 pings on both sides. Aside from the nostalgic factor, demomen will love this weapon, the feel and aura of this weapon is identical to that of pipes. It ties two of the most polar classes together. Again, perfect job, Valve.

Jarate: A lot of the players on the steam forums said leagues would ban this, but it's a perfectly legitimate weapon. Sure it's a jar of urine, but you just have to see it as a tool to use, nothing more nothing less. It has a long cool down on it, fairly large AoE and can be thrown surprisingly far, which is reasonable seeing that the sniper is still intended to be dangerous at long range. It brings the sniper into a passive support role that can get him involved in with the group instead of being alone in the corner.

It accomplishes everything Valve wanted to do while keeping the snipers strengths/weaknesses. Nothing bad can be said about this weapon except for one issue, the fact that it limits people with color blindness. Since leagues and some pub servers are sv_pure 2 there's nothing they can do to change the color. What needs to be done is have the icon of the player in the lower left corner be finally useful for something. Change the color of the player, make him have a stupid looking face, just have an icon of jarate next time, anything would work better than making the screen yellow.

Razorback: The most useless weapon in the game, hands down. Not only does it provide an incredibly small strength vs. one class, at the same time it limits your mobility vs. all others. There's also the fact that it can be used once and doesn't stop a spy from stabbing you in the face – they won't get the instant kill of the backstab, but it's still fairly easy for a spy to finish off a sniper with frontal knife attacks. Furthermore, the Razorback is so prominent, it pretty much announces to the Spy that they should just use their ambassador, which easily two-shot kills a sniper. If they can't land another hit after the head shot a quick knife swipe will finish him off. I try to find practical uses for every weapon out there, and non-practical uses too... somehow the razorback doesn't fit in either. Even running with your team to try and make spies think twice won't work very well and makes you a sitting duck (a selfish non-jarate one at that) when the team gets broken up by a flank or uber. It's just too specialized of a weapon (1 class 1 situation) to try and replace the SMG or jarate. There's not much you can do to save the weapon, adding HP to the sniper would be break the class, making it protect a certain amount of damage before breaking would be useless since people would shoot you in the face and that you can run away quick because of the slower movement speed. I realize Valve hates removing work they've done, and I've yet to see them fully remove any of their mistakes. They will only patch mistakes them to a certain degree... but Valve may have to cave in on this one and completely remake it or just create a new unlock and hide this thing under the rug.

Spy

If I remember correctly this is Gabe Newell's favorite class; it also happens to be the average pubber's favorite class. No other class has been given so much yet players still complain and play the class poorly. Spy has been given permanent cloak, the best disguises they can possibly have (short of allowing them to appear to be shooting), a headshotting pistol, a hand cannon original magnum (which no one used), ability to see enemy health, use of enemy teleporters, can instantly kill chains of people with the reduced animation... and people still can't play the class properly. People need to understand that disguises are as useless as they were from the start of the game, they are for sentry immunity and that's it. This is a point I've been making for years in various forums. Even Robin Walker admitted they are 'binary' – they work vs. bad players and not at all vs. good players.

People can try to argue that disguises are great, but experienced players will always notice your aura when you play spy and will kill you again and again. Cloak was pretty damn good before but now is insanely powerful with ammo pickups recharging cloak, yet some players still complain. Even with all of this people still die and make stupid moves. It took Valve to create two unlocks, one useless, another incredibly situational to keep everyone quiet. Valve has given you everything yet players still can't grasp the class. I hope Valve is done catering to these kinds of players and starts looking at the rest of the game. The problem isn't with the spy class, it's the spy players.

To further my points I've created a new play style based on movement alone. I played on servers from 16 players to 32 players. From people who said they were the best to newbie servers. The tactic is no cloak, no disguise, knife only. Believe it or not most games I've finish in the top 3 or 4 players with ease. The worst case was a round on Badwater where I finished 1st with 105 points and even had a domination. This is not to prove my skill, it's to prove that movement is the most important thing in this game. It is the key difference between good and bad players, its how players spot who's good and bad immediately. If I can do this then anyone with cloak should be able to do a lot better. Spy players usually don't understand this, they want to be something special, no other class has so many 'how to' videos that are useless, and every guide gets worse and worse. Even with new unlocks for every class people only make videos for the spy, yet the class is easier than most and is continually given more and more. These same players name stabs and try to create an art which falls short when they play a skilled player instead of just playing the game. I've said it over a year and a half ago on the teamfortress2fort forums and I'll say it again. You're not James Bond, you're not a damn ninja, you're a spy, so stop sitting around and start stabbing people.

Ambassador: First things first, please have an advanced option to remove the dynamic cross hair. I know my accuracy gets bad after the first shot; I don't need it to take up a larger portion of the screen. Aside from that it's a near perfect unlock. My only suggestion is headshots become mini-crits instead of full blown crits when under the effect of reduced accuracy. The best part about this is that it favors skill. Finally Valve made a weapon for competitive players and gave it to the masses and it turned out great. Now spy can be a significant factor even when not cloaked or when he doesn't want to risk getting in the middle of a fire fight. It's great for surprising an enemy with a 100 damage headshot or ambushing at a decent distance away. Spy could now be somewhat of a viable choice in league play. No longer are you dependant on the enemy not turning around, you can stay at a decent distance away and cause noticeable damage. A lot of people are saying this changes the spy too much but he still retains his main weakness of direct and large groups of conflict. He is still an assassin that has to focus on killing one target at a time and dies very quickly because of the low hp and average movement speed. The gun itself promotes single shot hit and runs or attacks that allow enough distance for the accuracy to go back to normal. Even when seeing the best snipers play spy they fall short of the damage heavy classes can deal in the same amount of time. It's everything the spy needed.

Cloak and Dagger: Mainly for the players who wanted spy to 'spy' more. It's also for the players who wanted cloak to drain slower when crouching and want to be cloaked longer than playing the game. It's a very situational cloak that only really shines on defense when needing to camp, and even then it falls short of the normal watch more often than not. A spy is more useful killing one target, putting a slug in another and respawning than he is sitting around for 30 seconds cloaked doing nothing. It's just too passive of a cloak to be used over the normal cloak. Normal cloak lasts longer and can be refilled to cover even longer distances, in some cases, such as Fastlane midfield, the spy can remain cloaked indefinitely. It falls into the same trap the normal cloak did before the picking up ammo update – it recharges very slowly so it takes more time to cloak and plan another attack. This weapon isn't worth saving; I'd scrape it because the whole idea of sitting and waiting instead of being proactive is bad. We don't want to promote this type of spy nor is there an environment where this type of spy will work constantly.

Alternate: I'd rather have tranquilizer magnum alternate, with an accuracy between the two current magnums, which does 50ish damage with not as much fall off. Instead of slowing movement speed which no one wants, I'd have it slow the reload rate of weapons. This would make it a somewhat strong gun versus most classes with an active support role. It should work on ubers too so that soldiers and

demos would be limited after they unloaded their first clip. It would also help a lot during the after-fight when players are the most paranoid and are lower in numbers. Since you can't depend on disguise or cloak you have to go in with force – this would create a choice between a more teamwork-oriented weapon with a little power or two other magnum choices.

The Dead Ringer: Design to keep all of those spies who complained about turning the corner and dying quiet. Before the patch, it was an amazingly annoying weapon with a decent use. After the patch, it became worthless. The de-cloaking noise is can be heard halfway across the map and usually leads to his death before the spy can fully uncloak. Recharge time takes too long for it to be used multiple times in the same fight, meaning you get one chance and it's a bad chance at that. While it fooled players for the first day it's not doing much now. This has the same problem as disguises – it works against bad players and but fails against good players. Most players know when they've done enough damage to a spy to die, especially when it's at long range and you touch them with one pellet from a shotgun blast. To make this weapon more useful I'd recommend that removing cloak should only take half of the Spy's cloak power instead of all of it. I would also increase the cloak recharge time from 180% to 250%. Now spies could use this multiple times a fight, but not to the point of pre-patch watch. Lastly I would remove or greatly reduce the delay of bringing the watch out, while keeping the 1 second of putting the watch away, in order to stop abuse. It needs to work quickly to be of use in a real fight and have a good chance of tricking a player. As for the noise, I'm not sure you can do this but I'd keep the noise at the same volume but shorten the range it can be heard. This allows you to use it around a corner and not be a dead giveaway. I can almost see it being a viable alternate if these changes are made. My only other thoughts would be to remove the bonus recharge rate and allow weapons/ammo to be picked up to recharge it, because there's just too much downtime when using it now.

Knife: It's a great weapon but an easy way to add some skill to the weapon as well as reduce face stabs would be to make the knife only hit the area that the cursor is over. Currently melee hits nearly the entire screen in front of you. Reducing its hit area would help tighten the area that can be backstabbed, hopefully reducing the number of "facestab" incidents, but wouldn't effect where you can and can't stab.

Sapper: I said this at the start that I don't like specific counter weapons. Valve did pull a fast one on me by making the cloaking watch the 3rd "weapon" so I want to say it's alright, but I have to disagree based on principle. Removing the sapper would make the engineer's job a lot easier and free him up from being so protective of his gear. Again like in the Fastlane case, allowing the engineer to move around more will allow for more mistakes to be made and from that openings will be everywhere. To balance this out I'd make the change from my old game, the knife doesn't hurt buildings but instead sabotages them. A single knife hit on a sentry will remove 33% of its ammo, 33% of the total metal in a dispenser. Teleporters can take x3-x4 as long to charge when knifed. A successful sabotage wouldn't remove disguise. Sure the knife would have an element of specific countering but the overall use of the weapon is still backstabbing, and that's what matters.

Conclusion

I applaud those that made it all the way though this, its longer than a paper some kids write these days. I could have written more, but I left out controversial topics on purpose. However should all this unjustified hate for leagues continues I may someday write another paper on that topic. Love it,

hate it, take it for whatever it is. I just want to remind people that just because some people don't have a degree in game development or they aren't the creators of the game, there's still a possibility of great developers out there that no one knows of. Am I one? Hell if I know, but this game was created as a mod at first by the players themselves. So when it comes to designing this game we should leave it in the hands of capable players and not the masses on the steam forums.

Lastly I would like to thank ladykiller for helping me with this paper and also letting me be on her latest pod-cast about the newest tf2 update. Can be streamed at or downloaded at www.nerdaverse.com.