Digital Paintball

This is an attempt to document completely my expectations for Digital Paintball. It is not in any specific format, though I will attempt to run down features as they appear to the player, and as they appear in the drop down menu. I may go off on tangents. I may loose track, or contradict myself. This is my brain, my years of experience managing the team and the community. With this document, you need me only to guide, never to direct. Anything in here is subject to change.

The game is started.

Upbeat, techno/rock mix music is played over the main menu. Prominently displayed is the Digital Paintball logo and the main menu. Somewhat less obvious is the soulstrewn logo. The menu items are as follows:

- Quick Game
- Career Mode
  - Start new game
  - continue game
  - Erase game
- Play Online
  - Join server
  - Host game
  - Configure Player
- Settings
  - Game Options
  - Controls
  - Audio
  - Video
- Quit
  - Are you sure? (if unsaved career or player config)

fig 1. A mockup of the title/menu screen.

The menu, logos, and music are overlaid over what appears to be a rocking paintball video. However, upon closer inspection, it is actually a game being played in real time by the AI. The camera should switch between different views (panning, zooming, etc). This ensures a different greeting (and therefore a different outcome) each time the game is played. There should be a setting to disable this non-interactive eye candy for lower-end machines.

The introduction screen to any game is of utmost importance. It sets the mood for the game, and the player's first expectations come from this screen (if not the box). Music is very important here, as are aesthetics. Wow factor is important.

Quick Game

When quick game is pressed, a very brief dialog should be presented to the player. It should include how many rounds (default 3, infinite an option), what map (default random), what gametype (el, ctf, a/d, scenario – will change with map) what loadout (default random, option to configure beforehand), and ai difficulty (default: easy, options easy hard impossible random).
After the player presses "ok" (or the more upbeat "Let's go!"), they are dumped right into the game, literally.

THE GAME
aka, what all the other stuff is a wrapper for

The gameplay is the most important part of any game. If it's terrible, overly complex, or simply not fun, then the game fails. Who cares what the gun looks like if it is unusable because of all the extra crud on the screen?

The game flow for DPB should run something like this:
Player spawns on field. Teammates and opponents spawn with him. There is a 10 second timer visible on the screen. The player is able to move around in a predetermined area (start box) for 7 of those ten seconds. While he is choosing a position, he is able to 'choose' what bunker he wants to run to, by shooting it with special pre-round balls. One a bunker is selected by a player, a small icon of a player will appear over it with that player's name, so that everyone on the team can see immediately which bunkers have been called. Finally, the counter runs down to 3, at which time he is furthermore frozen in place, and rotated away from the average position of all of his opponents (effectively, away from the center of the map). The countdown text should change in the last three seconds, either from white to red letters, maybe "HERE, WE, GO" instead of "3, 2, 1", be configurable, be able to be turned off, verbalized, or onscreen, or both. When the timer hits zero, there should be some sort of impetus for the player to move. In single player games, music (configurable) should start. Either a whistle, text, or the sound of a ref yelling "go go go" or "game on" (note that multiple samples of all of these should be recorded, as single sounds will get dull).

The game starts.

Markers are drawn up. The player advances towards his chosen bunker (note that at this time, bunker selections have since been cleared. It is up to the players to remember where they were going. AI

silently chooses a bunker, split seconds after all human player selections have been locked in, or at the 3 second mark). The player has a variety of movement styles available to him. Players moving towards the front of the field will want to be sprinting. While sprinting, their guns are lowered on the screen, as is their profile. Their left hand comes up to make incoming paintballs have a higher propensity for bouncing, and their movement speed is greatly increased. Sprinting takes stamina, which regenerates slowly while not running, and faster while not leaning out of a bunker. Another move which front and snake players alike will want to use is diving/prone. While sprinting, if the dive/jump button is pressed, the player will launch themselves into the air (and over any low cover) and land proned out on the ground. This position gives them a lower profile, so as to be able to take advantage of lower cover. If the crouch button is pressed while sprinting, the player will slide on their knees along whatever vector the player was sprinting. It has been suggested that while sprinting, colors are made more vivid, as if the player is having an adrenaline rush. Perhaps the corners of the screen should blur as well?

Wherever the player finds himself after the first crucial seconds of the game, it'll probably be behind some form of cover. If it's a tall bunker, the player may want to stand up instead of being hunched, to give himself a better view of the field and overall better general form. If it's a low bunker, the player may want to kneel, offering the same stability as standing, but at a lower height. However the player is hiding him or herself, he/she needs to be able to see out of cover without exposing more of their body. This is where leaning comes in. Traditionally, leaning has been an all-or-nothing affair. That is, either you're leaned all the way out, or you're not leaned at all. This doesn't work very well in the real work, or really in the digital realm either. Hence, analog leaning. The problem with analog leaning is that there is something else that is analog (looking around), and there's only one really analog input on a pc (that's the mouse). Some system must be created to allow for analog leaning AND analog viewshifting. There are two proposed solutions to this:

Solution one involves a key (q) for allowing the mouse to lean a player, and another key (e) to allow the player to look around while at whatever lean position he is in. Pressing Q allows the mouse to control lean in a very finely controlled manner. Pressing E allows the lean to be fixed at whatever position it is at, and allows the player to look around while leaning. Letting go of E returns the mouse to the lean control, and releasing Q unleans the player, and returns mouse control.

Solution two involves something not truly analog. Pressing and holding Q would start the player leaning left very slowly, accelerating towards being leaned fully left. 2 would be for leaning up (peeking), and e would be for leaning right. Releasing the key does not unlean, but pressing it again does.

Solution one gives the player the ultimate control over his leaning. Unfortunately, it's sort of kludged and may be hard to get used to. Solution two gives the player some control, but it's not really analog. It's also a bit more intuitive.

Perhaps this should be a control option?

ANYWAY, end leaning tangent.

Where were we? Ah, the player is behind a bunker.

So, what else is useful for a player to be able to do? Communication. There should be an easy to use (read: one keypress) way of identifying where an opponent is to your teammates. When pressed, a traceline should be sent out following the path of the cursor. If it intersects with an opponent, the player should teamspeak where that person is, or where the nearest cover to that person is. (DPNoob: <spotted> There's one in the snake!). Depending on the minimap, a blip should come up (if there is one) for a short period where that player is. If there is no hit on the traceline, the player should indicate so (DPNoob: <spotted> I've got nothing!).

When the player gets someone out, a traceline is sent from the player. If the traceline fails, then the player must have ducked behind cover, and nothing happens. If the player sees who he got out go out, then he should tell his teammates. (DPNoob: <spotted> I got one!) or (DPNoob: <spotted> Snake is down!).

While playing, if the player notices someone is only coming out of one side of a bunker, or is generally being very stupid, they may elect to bunker this person. In single player games, the bunkering mechanism should be automatic within a certain distance. That is, if the player is within 10 paces of the opponent in the bunker, firing within those ten paces (a special bunker icon will be displayed on the screen) will initiate an automagic runthrough, complete with third person camera. Control is returned the player immediately following a bunkering maneuver. Note that if the person is on the other side of a short bunker, or other obstruction, it may be difficult to convince the bunker ai that there is a clear path (diving and firing) to bunker, so this must be treated carefully. In multiplayer, this bunkering may be disabled by the server, but if it is enabled, the player does not flip into third person mode, rather, the player is kept in first person mode, and does the runthrough as normal. As soon as the first ball hits the opponent player, control is returned to the player. The bunkering distance should be shortened in multiplayer as well. Players are not immortal while performing a bunker move in multiplayer, and are significantly harder to hit (increase bounce chance?) while doing it in single player.

If the player is shot out (by his teammates, or by the other team). The hud should fade, and the camera should fly out from the back of the players head to third person, showing both the player and who got the player out. The player should raise his gun in the air, and remain like this for a short period of time. After a short period, the player should turn semitransparent, and walk to the outbox. When the player turns semitransparent, one of two things should happen:

> If it is a single player game, the player's ghost should hone in on a teammate, if available, and fly into their skull, and give the player control over that ai.. There should be no stupid wooshing nosies.
> If it is a multiplayer game, the player's 'ghost' should be freed for them to fly around and spectate the rest of the game. Their body is autowalked to the dead box.

Rounds end either by time, by objective (flag), or when all of one team is eliminated. On some objective based maps, players will respawn at fixed intervals. This depends entirely upon the map.

When the round has ended, a quick summary is shown.
It includes:
- What team won
- What the team scores were, and how many players were left 'live' on each team.
- The top three most accomplished players (or bots). This depends on game type, but should probably be 'kills'

If there are more rounds to be played, the teams switch sides, and a new round begins.
In single player, sets are generally field limited, but are probably 3, 5, or 7 rounds per set. In instant action mode, the amount of rounds are predetermined by the player. At the end of a set, a final scorecard should be displayed with the player's statistics, including rounds, paint flung, average bps, marks, outs, etc etc. In multiplayer, sets are somewhat less defined. Players get to choose what air tank they want to bring with them – this coupled with their ROF and gun choice (efficiency) effectively determines their set time. Players sets are complete when they run out of air. If a player runs out of air in the middle of a game, they can call themselves out, or bunker people (if the bunker rule is enabled by the server admin).

Alright, we've just played our instant action game, lets get into career mode.

Start New Career (or the new career wizard)

When the player clicks on start new career, they should be prompted for their name. After inputting their name, they will be brought to the team roster management screen. In this screen, they will input the team name (after this, the team name will be made permanent?), the team colors and outfit, and will draft four other players for the team.

Here is where I get to cram a lot of information into someplace it probably doesn't belong. Basically, in career mode, the idea is that you are managing a team through a competitive season. Throughout the season, you have practice on sunday, and a match the next saturday. This leads for two managable days a week, 104 items to manage in a year. Your teams competitiveness depends on you, of course, the stats of your team, and how well you manage them (sponsorships, targeted practice, keeping your teammates happy). The statistics each ai player has are the following: speed, skill, guts, charisma. Speed directly affects how fast the player can dash. Skill affects how fast the player can reload, and how accurate his shots are, and how good at snapshooting he is. Guts affects how the player will play,

more gutsy players will take bigger risks, and teamwork/charisma affects how well the player gets along with other players, and how well it communicates on the field.

After you've set your initial team up, you'll be greeted with the home screen, which is nothing more than a calendar, status, and some button-links to the tutorial (hazard course), roster management, sponsorship management, treasury/inventory, trophy case. It might be worth it to not have this be an actual menu, but rather a map of like, a den or something with your teammates hanging around, where different items in the den are different menu items. Also, there should be some chill, jazz-style music playing while you're here.

Each career spans precisely one year, from January to December. The object of the single player game is to win as many of the six major events of the season, and ultimately the world finals. The game starts off at the local field, and as your gain sponsorships you get the opportunity to go to other fields and play against different teams. There is a major tournament every last sunday of the month, with lesser (local) tournaments every sunday. This works out to a major tournament about every 2 months, but there is a major tournament on the last sunday of the first two months, to give the player a chance to play catchup if they are new to the game. Saturdays are practice days.
When the player is done managing the team for that day, they can either advance to the next manageable day, or save and quit.

Each manageable day, you will be able to choose which field you want to bring your team to, although at the beginning of the season you will only have one field available to you, (your home, local field).

Different fields will have different teams of different difficulties at them, and will cost increasingly more the farther from home you go. When you go to a field, you will be spawned on the map by the 'tent' or staging area, with your teammates standing close nearby. There will be other teams staging, and some teams playing. You can go to the proshop to check out gear, (which costs money), or grab an open field to practice on. If you interact with one of the other teams, you can arrange a scrimmage.

Each member of your team will be outfitted individually, gun wise, unless you have a team sponsorship. Everyone will wear the same style jersey, pants, goggle, and sandana (you got them as part of your team package when you first started)

There will be different practices that can be run to work on players, and as the season progresses you can mold your team how you want. Snap shooting drills, run throughs, communication drills, and dry runs. Also, scrimmages, etc. Basically, scrimmaging marginally increases your players stats overall, while doing specific drills helps individual players much more. Note that practices and scrimmages cost money.

At a tournament, it will be almost like a practice day, except there are no drills or scrimmages. It costs money to enter a tournament. The player is presented with the next team they are going to face, and the player has five minutes to report to the field (npc refs will be by the field to be reported to). After each set, a ladder is shown on the screen denoting the players progress. Most tournaments should be double-elimination. If the player wins a trophy, they should get a congratulatory screen, some prize money, and their team rating is increased. If the player does not win, they suffer no ill effects, except for lost money.

Sponsorships are 'unlocked' by team rating. When a company sponsors you, they will either give you money (or cover your entrance fees), paint (for practice, paint in tournaments is unlimited, assumed covered by the entrance fee), or guns. Guns can be bought with money in the treasury, but generally sponsored guns will be used. Basically, as the team wins local tournaments, their rating goes up a little bit. As they win major tournaments, their rating goes up a decent amount. Teams will only be allowed to participate in the major tournament at the end of the year if their rating is at least 4/5 stars.

Multiplayer (online/lan).

Multiplayer is sort of an online meld between quick action and tournament play. You spawn on a field, but without cronies. Once you spawn on the map, you can bring up a list of the fields available by hitting tab, or talking to a handy dandy npc.

From there, you can see who is playing where, or be put on a queue for the field. Sets in multiplayer are per-player, impacted by the air and load out the player is carrying (as specified earlier).

Anything else I haven't covered (unlocks, real life advertisement type sponsorships, gun tech trees, etc)
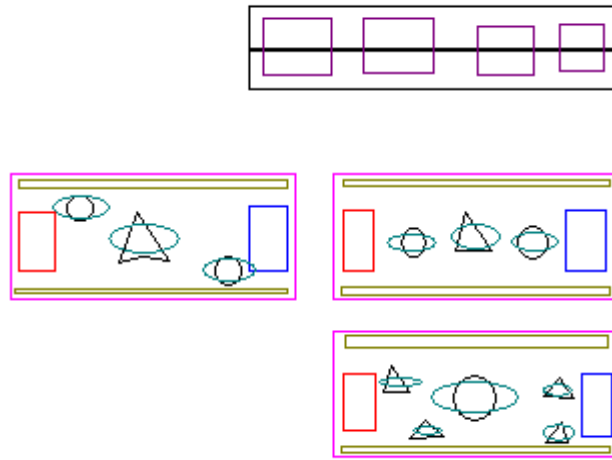
Required mapping entities.
Black - are items on the map. There are three fields here, and one tent.
Pink - are field borders. These get themselves assigned a number, and a bitmask field with allowed
    game types.
Red - is the red team start box,
Blue - is the blue team start box.
Dark Yellow is 'gutter' – it tells the AI where it's safe to walk when it's out. These are tied to the field
    number.
Teal - are bunkers. These are tied to the field number, and have unique names.
Dark purple - are gathering points. Mainly used for single player, it'll be where bots congregate when
    they're not in a game. These are numbered.

Tech Tree

All guns have an upgrade path. These do not include the omni-gun upgrades, such as Co2/air and
hoppers. These upgrades are available for all guns, except for electropnumatic markers which do not
accept CO2. Air upgrades are easy – they don't really change the on-screen marker too much.

- Gas Supply
    - CO2 9oz
    - CO2 20oz
    - AIR 45/45
    - AIR 68/45
    - AIR 88/45

- Hoppers
    - Gravity Feed
    - Agitated
    - Impeller-type
    - Force-fed Type

Blazer Tech Tree
- Blazer
  - Body
    - Centerfeed, plain black
  - Trigger Frame
    - Standard
    - 45 frame
    - Double 45
    - Eblade
  - Barrel
    - 10in Brass
    - Bigshot
    - 12in nickel spiral vented
  - Anodizing
    - Solid color, matte
    - Solid color, polish

Here, the trigger frame upgrades will increase ROF. The barrel upgrades will increase Accuracy. Anodizing upgrades just look pretty.

Player animations
There should be a few different body types, as well as female/male variants of each.
- Off the field (no gun) (mask being held in hand?)
  - Walking
  - Sprinting
  - Ducking
- On the field
  - Stealthy moving (not walking, not running)
  - Sprinting
  - Extremes of leaning (will be blended somehow...)
  - Kneeling
    - Going kneeling
    - Getting back up
    - Extremes of leaning
    - Getting Out
  - Prone
    - Going prone (including diving)
    - Getting back up
    - Extremes of leaning
    - Getting Out
  - Getting Out
  - Walking when out (should meld well with getting out)