MOD DESIGN SPECIFICATION

AvP2 Team Fortress: Map Design Spec

Version 1.0
April 04, 2008

Author:
Herr_Alien (garone80@yahoo.com)

1 Table of Contents

2 Introduction

This document describes map design issues specific for the Team Fortress mod for Aliens vs. Predator 2. The following terms are used within this document:

Term	Meaning
AvP2	The "Aliens versus Predator 2" game
GameStartPoint	Game entity responsible for the placement of the player when the player spawns.
.ed	Binary file format under which AvP2 maps are saved in their non-compiled form (the equivalent of a source file).
AllowTeam1	Boolean flag for the GameStartPoint entity.
AllowTeam2	Boolean flag for the GameStartPoint entity.
AllowMarines	Boolean flag for the GameStartPoint entity. If set to true, marines can spawn at this point.
AllowPredators	Boolean flag for the GameStartPoint entity. If set to true, predators can spawn at this point.
AllowAliens	Boolean flag for the GameStartPoint entity. If set to true, aliens can spawn at this point.

A forum thread was created for this particular mod. It is available at the following location:

http://forumplanet.gamespy.com/community/b49024/18618494/p1/?63

The current website of this mod is located at:

http://www.avp2fortress.co.nr

An article describing the original "Team Fortress" mod can be found here:

http://en.wikipedia.org/wiki/Team_Fortress_Classic

3 Geometry

3.1 General description

This section describes the general layout of the map.

3.2 Assault maps

For this particular game mode, an asymmetric layout works best. The map should have a path-like layout; for each section that can be turned into a choke point (narrow corridors), an alternate path should also be available. The objective that needs to be destroyed should be accessible by at least 3 paths.

3.3 War maps

In war mode, each team has to attack the opponent’s base while still protecting it’s own. Symmetric maps are recommended here. A general layout would be having two bases, separated by a neutral section. The neutral ground can have any geometry, but symmetry is recommended. The connection between any base and the neutral ground should be made by at least 3 paths. Like the assault map, the objective should be accessible by at least 3 paths.

3.4 Capture the Flag and One Flag CTF

In CTF, each team has to infiltrate the opponent’s base, take it’s flag, and return with the enemy flag to it’s own base to score. In One Flag CTF, a yellow flag is spawned between the two bases. Each team must capture it and infiltrate the enemy base to score. Therefore, both these game types need symmetric maps. There’s one additional request for One Flag CTF: the area where the yellow spawns must be easy to access, and large enough, since it will turn itself into a deadly arena.

3.5 <some other game type>

4 Entity placement and settings

4.1 General description

This area covers the placement of game objects such as GameStartPoints, flags, and their properties. The recommended approach is to simply copy paste the game objectives from the testbench series of maps to your own.

4.2 GameStartPoint

4.2.1 Properties

The species related boolean flags that control the game start point entity are disabled in Team Fortress. The main flags that matter are `AllowTeam1` and `AllowTeam2`. A GameStartPoint set up with `AllowTeam1` to TRUE and `AllowTeam2` to FALSE can be used only by players that belong to Team 1 (skin color blue). The opposite set-up (`AllowTeam1` to FALSE and `AllowTeam2` to TRUE) makes a GameStartPoint usable only by Team 2 (color red).

4.2.2 Placement

Team specific GameStartPoints should be placed inside the base that corresponds to that particular team.

Placement of GameStartPoint entities in Assault maps can also be used to create check-points: you can place attacker usable GameStartPoints on the attack path and as soon as the attacking team destroys a certain intermediary objective, the original GameStartPoints are hidden, and the corresponding GameStartPoints that belong to the destroyed objective can be now used.

4.3 WAR Objectives

4.3.1 Properties

The objectives to be destroyed must be implemented as a destructible object (prop, Translucent World Model) that has the following damage properties:

Name	Value
KillerMessage	addtoscore Objective_Team1
NeverDestroy	FALSE

The setup above is for a Team1-protected objective. Destroying it will force the start of the next map, while the message `Team 1 Objective destroyed!` appears on all clients' screens.

4.3.2 Placement

The objective should be placed inside each team's base (for WAR maps) or inside the defending team's base (for ASSAULT maps).

4.4 CTF Flags and One Flag CTF Flag

4.4.1 Properties

The flags are complex prefabs, made out of several triggers and a prop. The purpose for each trigger is as follow:

- FLAG_RETURNED_TEAM_1 (FLAG_RETURNED_TEAM_2): gets triggered when the flag is returned to it's base, or when the enemy team scores and the flag has to be reset. What it does is to make the flag prop visible, and to unlock the sensors (TakeFlagSensor_for_Team2) and the scoring sensor trigger (FlagScoreSensor1_Team1). The name is case sensitive, and has to be in the format FLAG_RETURNED_TEAM_<team_number>
- FlagScoreSensor1_Team1 (FlagScoreSensor1_Team2): because it ends it's name with _Team1 (_Team2), this trigger can be set off only by the members of the first team (resp. second team). It sends the "HASENEMYFLAG;" message to the person who touched it. If that team member does have a flag, the player himself will trigger the scoring mechanism and reset the captured flag (this is achieved by code).
- TAKE_FLAG_TEAM_1 (TAKE_FLAG_TEAM_2): this trigger is set off by any of the TakeFlagSensor_for_Team<team_number> triggers that make the prefab. It's purpose is to hide the flag prop and to lock the FlagScoreSensor1_Team1 and TakeFlagSensor_for_Team<teamNum> that make the prefab (thus forbidding scoring and additional captures when the flag is already captured). The name is case sensitive, and has to be in the format TAKE_FLAG_TEAM_<team_number>
- TakeFlagSensor_for_Team2 (TakeFlagSensor_for_Team1): because it's name ends with _Team2, this trigger can be activated only by Team 2 members (which makes sense: Team 2 does want to capture Team 1's flag). It sends the "FLAGTOUCHED 1;" message to the player who touched it, thus attaching Team 1's flag to the player (the TakeFlagSensor_for_Team1 sends out "FLAGTOUCHED 2;"). It also triggers the TAKE_FLAG_TEAM_1 trigger.

4.4.2 Placement

The flags in CTF should be placed inside each team's base; in addition to the flags from CTF, the flag in One Flag CTF should be placed in the center of the map.

5 Revision History

Version	Date	Author	Change	Bug(s)
1.0	April 04, 2008	Herr_Alien	First version	NA
1.1	April 12, 2008	Herr_Alien	Objective mechanism added	
1.2	May 31, 2008	Herr_Alien	Added the description for CTF flags	

6 Open Issues

Version	Date	Issues	Bug(s)
1.0	April 04, 2008	Pickup placement Objective implementation Improve check point implementation	[IDs of bug(s) associated with each issue]
1.2	May 31, 2008	One Flag CTF needs better explanations and a testbench map.	