

PLANETDEFENSE V0.3.0

CSCE3513 TEAM 6 GAME PROJECT - SPRING2012

USER STORIES:

- Levels - As a user, I want to be able to progress through a series of levels.
- Timed Scoring - As a user, I want to beat a level by surviving for a set amount of time.
- Enhanced Options - As a user, I want to be able to change difficulty and volume settings.
- Credit Screen - As a user, I want to be able to see information about the game's creation
- on the credits screen.
- Alternate Fire - As a user, I want to be able to periodically use an alternate firing mode to clear several
- asteroids at once.
- Performance - As a user, I want the game to run smoothly.

TDD-ING

- Followed Test-Driven Development for all major changes
- Options
- Media Loader
- Credits
- Alternate Fire
- For some small changes, TDD was not useful. For example, tests for checking that the correct amount of lasers were fired during alternate fire was easy, but testing for how the lasers should spread out was difficult using automated testing. It was much easier to test the spread of the lasers in-game.

UNIT TESTING — UPDATED WEAPON_SPEC FOR ALTERNATE FIRING

```
it 'should have an alternate firing mode on a cooldown' do
  #Trying 3 times in a row will give 1 successfull alt fire
  #and 2 unsuccessful alt fires due to the cooldown
  3.times do
    #10000ms is default cooldown (medium difficulty)
    if @weapon.last_alt_shot + 10000 < milliseconds()
      @weapon.alt_shoot.should == true
    else
      @weapon.alt_shoot.should == false
    end
    #If alt_fire was just done, trying again should fail
    @weapon.last_alt_shot = milliseconds();
    @weapon.alt_shoot.should == false
  end
end

it 'should fire 3 waves of lasers when alt_firing' do
  #Before alt fire, the step should be on -1
  @weapon.alt_shot_step.should == -1
  @weapon.alt_shoot
  #After each check_alt_shoot, the step should be incremented
  @weapon.alt_shot_step.should == 0 #Incremented to 0
  @weapon.last_alt_shot = 0
  @weapon.check_alt_shoot
  @weapon.alt_shot_step.should == 1 #Incremented to 1
  @weapon.last_alt_shot = 0
  @weapon.check_alt_shoot
  @weapon.alt_shot_step.should == 2 #Incremented to 2
  @weapon.last_alt_shot = 0
  @weapon.check_alt_shoot
  @weapon.alt_shot_step.should == -1 #Reset to -1 after 3 waves completed
end
```

UNIT TESTING - SIMPLE TESTING FOR MEDIA_LOADER

```
describe MediaLoader do

  before :all do
    @g = PlanetDefense::GameWindow.new
    @media_loader = PlanetDefense::MediaLoader.new(@g)
  end

  after :all do
    @g.close
  end

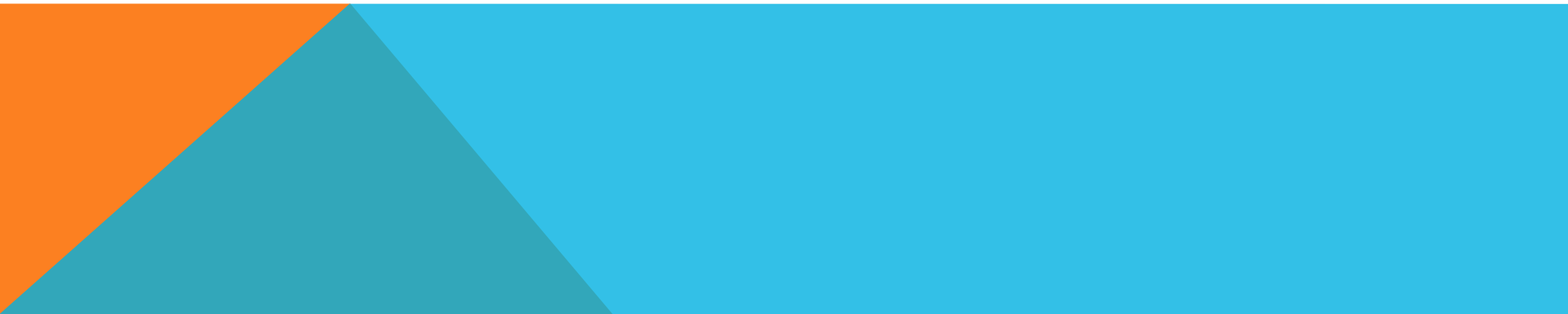
  it { @media_loader.should respond_to :load_asteroid }
  it { @media_loader.should respond_to :load_weapon }

  context "when playing" do

    it 'should load files into animations and images' do
      @media_loader.asteroid["asteroid1_1"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid["asteroid1_2"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid["asteroid1_3"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid["asteroid2_1"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid["asteroid2_2"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid["asteroid2_3"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid["asteroid3_1"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid["asteroid3_2"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid["asteroid3_3"].should be_kind_of(Gosu::Image)
      @media_loader.asteroid[:explosion_anim].should be_kind_of(Chingu::Animation)

      @media_loader.weapon[:laser_anim].should be_kind_of(Chingu::Animation)
      @media_loader.weapon[:alt_laser_anim].should be_kind_of(Chingu::Animation)
    end
  end
end
```

DEMO



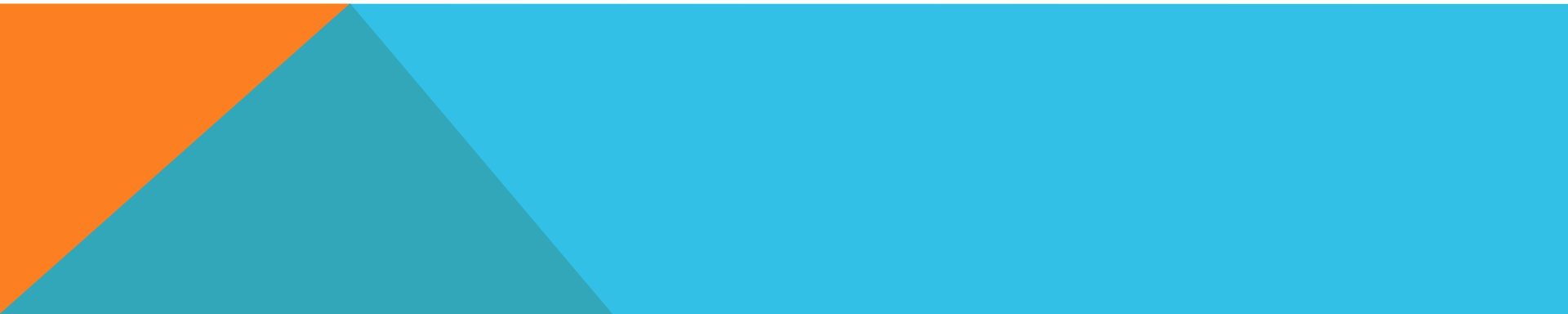
CURRENT STATUS OF GAME

- **Nearly all of the features we originally wanted to implement for the game are done. We are now just polishing things and writing more tests.**



TEAM MEETINGS

- Regular meetings every Tuesday
- April 2nd - Campfire Group Chat
- April 3rd - In Person
- April 4th - In Person
- Several short Google Talk chats while working individually to get help from other group members



PLANNING FOR NEXT RELEASE

- As a user, I want to be able to create a player profile.
 - Allow making a player profile
 - Save settings and scores based on currently active profile
- As a user, I want to be able to view a high score list.
 - Read scores from all player profiles and sort in descending order (global high score list)
 - Read scores from individual player's profile (personal high score list)
- As a user, I want to be able to grab power-ups floating around the game.
 - Change alternate fire from timed to power-up based
 - Possibly add other power-up abilities, like a shield or upgraded weapon
- As a user, I want to be able to enter cheat codes.
 - Star Trek ship easter egg
 - Add codes for god mode, no weapon heat-up, etc.

Questions?

