

White Box Testing Table

(Part of *Test2.pdf*)

Cohort 1, Team 4:

Robert Watts
Adam Wiegand
Josh Hall
Travis Gaffney
Xiaoyu Zou
Bogdan Lescinschi

ID	Related requirements or components	Type of Test	Description	Input data / Scenario	Expected outcome	Actual outcome	Status (pass/fail)
test_all_map_assets_exist	UR_MAP, File System	Automated	Test that all of the expected map asserts exist in the expected location and that none are missing.	A list of all the expected map assets that is tested against GDX files. The files include tilesets, tmx and atlases.	True	True	Pass
test_all_audio_assets_exist	FR_ALIENS, File System	Automated	Test that all of the expected sprites exist in the expected location and that none are missing.	A list of all the expected sprite assets that is tested against GDX files. The files include all the PNG's in the individual_sprites folder	True	True	Pass
test_all_sprites_exist	File System	Automated	Test that all of the expected audio asserts exist in the expected location and that none are missing.	A list of all the expected audio assets that is tested against GDX files. The files include mp3's and wav's in the audio folder.	True	True	Pass
check_easy_level_has_correct_number_of_infiltrators	FR_DIFFICULTY_SELECTION NFR_DIFFICULTY	Automated	Test that world.MAX_INFILTRATORS is correctly set for easy difficulty.	Set difficulty to easy.	8	8	Pass
check_normal_level_has_correct_number_of_infiltrators	FR_DIFFICULTY_SELECTION NFR_DIFFICULTY	Automated	Test that world.MAX_INFILTRATORS is correctly set for the normal difficulty.	Set difficulty to normal.	8	8	Pass
check_hard_level_has_correct_number_of_infiltrators	FR_DIFFICULTY_SELECTION NFR_DIFFICULTY	Automated	Test that world.MAX_INFILTRATORS is correctly set for the hard difficulty.	Set difficulty to "hard".	8	8	Pass

test_blinded_attack	FR_HOSTILES_ABILITIES	Automated	Test that when a blind projectile hits a player the player is blinded.	A blind projectile that is touching the player. Test that player.blinded is true.	True	True	Pass
test_slow_attack	FR_HOSTILES_ABILITIES	Automated	Test that when a slow debuff projectile hits a player, the player is slowed down.	A slow projectile that is touching the player. Test that player.slowed is true.	True	True	Pass
test_confused_attack	FR_HOSTILES_ABILITIES	Automated	Test that when confused a confused debuff is active, the player is confused.	A confused projectile that is touching the player. Test that player.confused is true.	True	True	Pass
test_random_action	FR_HOSTILES_ABILITIES	Automated	Test that when a projectile is created with a random action, the returned action is valid. Run this test 20 times for completeness.	Call the random action function	Either CONFUSE, SLOW, or BLIND	After 20 runs they were all in that list	Pass
test_path_node_equals	FR_HOSTILES_RUN Pathfinding Module	Automated	Test that two nodes equal each other	<ul style="list-style-type: none"> -Test two nodes with the same position are the same. -Test that two nodes with different positions are not the same. -Test that a node and other objects aren't the same. 	True False False	True False False	Pass
test_path_node_path_cost	FR_HOSTILES_RUN Pathfinding Module	Automated	Test that the pathcost for is correct for child nodes	3 nodes with a parent node, then a child node, then a grandchild node	The path costs should be as followed: Parent – 0 Child – 1 GChild - 3	1 2 3	Pass

test_path_no_de_heuristic	FR_HOSTILES_R UN Pathfinding Module	Automated	Test that the heuristic is calculated correctly for NPC nodes.	3 Nodes, the first two have the same position and destination, and the final one is different. The second is a child of the first.	The first node should have a heuristic of 0, the second 1 and the third 8.	0 1 8	Pass
test_navigation_mesh_euclidian_distance	Pathfinding Module	Automated	Test that the Npc pathfinder calculates the Euclidean distance correctly.	Test with each if the input pairs: {{0,0}, {0,0}}, {{1,0}, {0,0}}, {{5,0}, {0,7}}, {{5,0}, {-14,3}}, {{5.1f,0.3f}, {0.3f,7.5f}}	0, 1, 8.60232, 19.235384, 8.653323	0, 1, 8.60232, 19.235384, 8.653323	Pass
test_that_player_can_heal	UR_PLAYER FR_HEAL	Automated	Test that the player can heal when in the medbay.	A player with 50% health	A health of 60%	A health of 60%	Pass
test_that_player_can_sustain_damage	FR_HOSTILES_A TTACK	Automated	Test that a player without invincibility or a shield can sustain damage.	A player with 50% health	A health of 40%	A health of 40%	Pass
test_that_invulnerable_player_cannot_sustain_damage	FR_HOSTILES_A TTACK FR_POWERUPS	Automated	Test that a player with invincibility will not sustain damage	A player with 50% health and invincibility true	A health of 50%	A health of 50%	Pass
test_that_player_with_shield_cannot_sustain_damage	FR_HOSTILES_A TTACK FR_POWERUPS	Automated	Test that a player with a shield will not sustain damage until the shield is depleted.	A player with 50% health and two shields. Test should cause damage 3 times testing the health after each and that the shield drops by 1	A health of 50% and shield of 1. A health of 50% and shield of 0. A health of 40% and shield of 0.	A health of 50% and shield of 1. A health of 50% and shield of 0. A health of 40% and shield of 0.	Pass

test_player_to_json	FR_SAVING	Automated	Test that the player is correctly export to json	A player in the world. The order of the array does not matter	{ "confused":false, "shield":0, "slowed":false, "fast":false, "x":50, "y":50, "health":1, "maxSpeed":2, "blinded":false, "tasks":[], "invinc":false }	{ "confused":false, "shield":0, "slowed":false, "fast":false, "x":50, "y":50, "health":1, "maxSpeed":2, "blinded":false, "tasks":[], "invinc":false }	Pass
test_main_menu_screen	FR_MENU UR_UX	Automated	Test that the game can change to the menu screen.	Use a game instance and set the screen to MenuScreen. Run the result of Game.getScreen() is an instance of MenuScreen	True	True	Pass
test_load_screen	FR_SAVING UR_UX	Automated	Test that the game can change to the load screen.	Use a game instance and set the screen to LoadScreen. Run the result of Game.getScreen() is an instance of LoadScreen	True	True	Pass
test_game_screen	UR_UX	Automated	Test that the game can change to the game screen.	Use a game instance and set the screen to GameScreen. Run the result of Game.getScreen() is an instance of GameScreen	True	True	Pass

test_GameOverScreen	FR_LOSS_CONDITION FR_WIN_CONDITION UR_UX	Automated	Test that the game can change to the game over screen.	Use a game instance and set the screen to GameOverScreen. Run the result of Game.getScreen() is an instance of GameOverScreen.	True	True	Pass
test_random_float_in_range	Utils Class	Automated	Test that the randomFloatInRange method works correctly.	Test each of the input pairs (with the first being the lowest and the second being the highest): {10.1f,21.1f},{21,22},{21.1f,21.2f}	For each pair a number between them should be generated	For each pair a number between them was generated	Pass
test_dud_powerup	FR_POWERUPS	Automated	Test that when a dud powerup is attached to the player the fast, invincibility, shield, health, and max speed are not affected.	A powerup collides with the player of 50% health on hard difficulty.	The players attributes are: Fast - False Invinc - False Shield - 0 Health - 0.5 maxSpeed - 2	Fast - False Invinc - False Shield - 0 Health - 0.5 maxSpeed - 2	Pass
test_heal_powerup	FR_POWERUPS	Automated	Test that when a heal powerup is attached to the player the fast, invincibility, shield, and max speed are not affected but the health is increased.	A powerup collides with the player of 50% health on hard difficulty.	The players attributes are: Fast - False Invinc - False Shield - 0 Health - 0.8 maxSpeed - 2	Fast - False Invinc - False Shield - 0 Health - 0.8 maxSpeed - 2	Pass

test_invincibility_power_up	FR_POWERUPS	Automated	Test that when an invincibility powerup is attached to the player the fast, shield, health, and max speed are not affected but the invincibility changes.	A powerup collides with the player of 50% health on hard difficulty.	The players attributes are: Fast - False Invinc - True Shield - 0 Health – 0.5 maxSpeed - 2	Fast - False Invinc - True Shield - 0 Health – 0.5 maxSpeed - 2	Pass
test_shield_power_up	FR_POWERUPS	Automated	Test that when an invincibility powerup is attached to the player the fast, invincibility, health, and max speed are not affected but the shield is changed.	A powerup collides with the player of 50% health on hard difficulty.	The players attributes are: Fast - False Invinc - false Shield - 1 Health – 0.5 maxSpeed - 2	Fast - False Invinc - false Shield - 1 Health – 0.5 maxSpeed - 2	Pass
test_speed_power_up	FR_POWERUPS	Automated	Test that when a speed powerup is attached to the player the shield, invincibility, and health are not affected but the fast and max speed changes.	A powerup collides with the player of 50% health on hard difficulty.	The players attributes are: Fast - True Invinc - false Shield - 0 Health – 0.5 maxSpeed - 3	Fast - True Invinc - false Shield - 0 Health – 0.5 maxSpeed - 3	Pass

test_boom_power_up	FR_POWERUPS	Automated	Test that when a boom powerup is activated by the player the fast, invincibility, shield, health, and max speed are not affected. Also, test that revealed infiltrators within the radius destroyed.	A powerup collides with the player of 50% health on hard difficulty. A list of hostiles that are within the POWERUP_BOOM_RANGE.	The players attributes are: Fast - False Invinc - false Shield - 0 Health – 0.5 maxSpeed – 2 An empty list as all the hostiles have been imprisoned	Fast - False Invinc - false Shield - 0 Health – 0.5 maxSpeed – 2 An empty list as all the hostiles have been imprisoned	Pass
check_easy_level_has_correct_powerup_multipliers	NFR_DIFFICULTY FR_POWERUPS	Automated	Test that the world variables POWERUP_HEALTH_AMOUNT, POWERUP_SHIELD_AMOUNT, POWERUP_SPEED_MULT, POWERUP_BOOM_RANGE and AUBER_BUFF_TIME are correct for the easy level.	Change the difficulty to easy.	The results in order of the description column: 0.8 2 2.5 240 15	0.8 2 2.5 240 15	Pass
check_normal_level_has_correct_powerup_multipliers	NFR_DIFFICULTY FR_POWERUPS	Automated	Test that the world variables POWERUP_HEALTH_AMOUNT, POWERUP_SHIELD_AMOUNT, POWERUP_SPEED_MULT, POWERUP_BOOM_	Change the difficulty to normal.	The results in order of the description column: 0.5 1 2 160	0.5 1 2 160 10	Pass

			RANGE and AUBER_BUFF_TIME are correct for the normal level.		10		
check_hard_level_has_correct_powerup_multipliers	NFR_DIFFICULTY FR_POWERUPS	Automated	Test that the world variables POWERUP_HEALTH_AMOUNT, POWERUP_SHIELD_AMOUNT, POWERUP_SPEED_MULT, POWERUP_BOOM_RANGE and AUBER_BUFF_TIME are correct for the hard level.	Change the difficulty to hard.	The results in order of the description column: 0.3 1 1.5 120 8	0.3 1 1.5 120 8	Pass