Star Wars CD

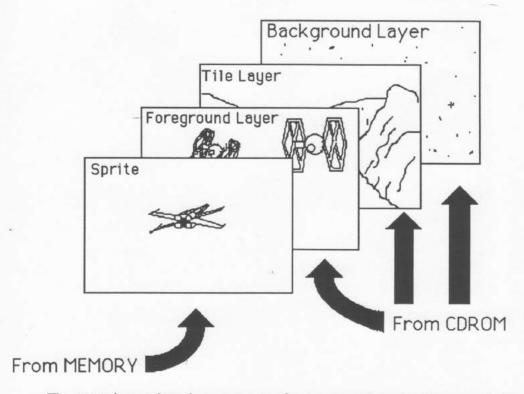
Proposed Design Vince Lee 10-Apr-92

INTRODUCTION:

Star Wars CD is a visually-oriented flight/combat game for CDROM-based game platforms. Aspects of its design resemble both PC-based simulators (XWing) and cartridge-based arcade games (Super Star Wars). However, Star Wars CD is neither a true simulator nor a conventional arcade game. Instead, it exploits the massive storage capabilities of CDROM to provide interactive gameplay in a world of realistic imagery and animation. These graphics are 3D-modeled and pre-generated on computer, complete with cinematic cuts, camera angles, pans, and zooms. The emphasis of the game is on stunning imagery and animation and not strategy or complex game play.

Star Wars CD relies heavily on the use of computer-generated ships, planets, asteroids, starfields, and landscapes which are animated beforehand and stored on CDROM in compressed form. A multi-layered animation system, hereafter called the *streaming animation engine*, is used to play back and manipulate these pregenerated animated sequences.

STREAMING ENGINE



The streaming engine takes sequences of pre-generated moving images and plays them back in real time off of a CD ROM disk. Thus, it resembles a VCR in that it can playback selected pre-recorded sequences. To create more than just a passive viewing experience, however, we add interactivity with a few tricks:

1) Layer control

First, each object in the animation stream, be it an XWing, building, or background, is stored in its own image "layer," similar to the layers of cellophane in cartoon animation. These layers are composited during playback to create the final display. Under program control, any layer can, on a frame-by-frame basis, marked transparent or "turned off" in the compositing process.

This feature is useful for erasing objects that have been destroyed. For instance, suppose we are playing a sequence where we are following a TIE fighter through space. If we shoot the TIE fighter, we can overlay an explosion image over the TIE fighter, and then

turn off its layer to make it disappear.

Layer control also allows subtle changes to the play our outcome of a sequence. For instance, the before-mentioned Tie fighter can be made to appear from three different angles using layers. Each pass is simply rendered into its own layer, and at random, only one is chosen to be displayed.

2) Sprites

Next, memory-resident images, or sprites, can be added in front of, behind, or within the layers that make up the streamed animation. Since they reside in memory and are not part of the animation stream coming off the CD, they can added, changed, or moved at any time. As an example, a sprite could be used to provide imagery for a player's ship during a flight sequence. The ship would be overlaid over terrain coming off the CD. Since the ship would not be part of the stream, it could bank and move under player control.

2) Stream Manipulation

Even if an image is part of the animation stream it can still be changed in response to user input. The streaming engine can perform simple graphic manipulations on the images when compositing them. For instance, the streaming engine can shear or scroll an incoming image, which can be used on terrain animation to simulate banking and panning of the horizon during a flight sequence.

3) Stream Branching

Lastly, the animation engine can stop playing an animation stream on disk and immediately start playing another animation altogether. If the animations are matched correctly, the transition can seamless. For example, with stream branching, a player flying a T-Wing down a rocky canyon could choose which path to take when a forks appear in the ships path. Choosing one arm of a fork would cause a branch to another animation, while choosing the other would continue the current one.

GAME PLAY

Star Wars CD has 15 game levels which play linearly from beginning to end. Each level will contain approximately 1 minute of animation. These are divided into four "acts": training (3 levels), Tatooine (3 levels), Hoth (4 levels), and Yavin (5 levels). Play can begin starting on any level using a passcode entry system. In addition, each act will also have gratuitous fancy cinematic lead-ins (following in ships from space, etc).

Scenario

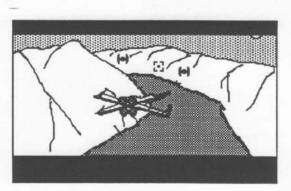
The game is based in the Star Wars universe but does not limit itself to elements mentioned in the motion pictures. In addition, although the game's story coincides somewhat with storyline of Star Wars, we see the action from another point of view, not that of Han, Luke, Chewy, or the Princess. Instead, the player is a rookie Rebel pilot, who gains rank and experience as he/she participates in both training and actual missions against Imperial forces, climaxing with an attack on the Deathstar station.

Game mechanics

The gameplay of each level consists of one or more segments following three basic models.

1) Constrained Flight

In constrained flight, the player navigates an air or space vehicle through pregenerated terrain or obstacles. Since the scenery in our flight sequences is calculated beforehand, so must be the craft's flight path. We can create some interactivity using branching and stream manipulation, but the player's control of his/her vehicle cannot be as unlimited as with a true flight simulator. Thus, in a constrained-flight sequence, there must be a rationale for the player's inability to freely navigate. In most levels, this will take the form of flight in a canyon or trench (where path deviation would cause the player to strike the canyon walls) or persuit of another vehicle, where the direction of travel is obvious.

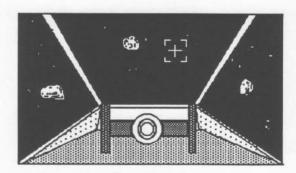


The player will fly his/her vehicle, viewing it from behind, superimposed over a moving background image. The vehicle can fall, climb, or bank left or right, but if it moves too far to the side, it will hit the side of the trench or canyon, causing an explosion and loss of a shield unit.

In some levels, there will be targets to shoot. When this is true, a targeting sight will appear in front of the player's craft.

2) Forward Shooting

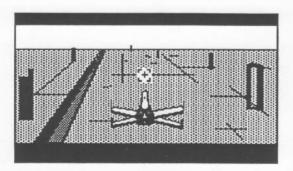
In forward shooting, the player's path is completely pre-determined. Thus, the player assumes the role of gunner only. However, since the flight path need not appear interactive, it can be made unusually complex and interesting.



The display if from a perspective inside the cockpit, not outside the craft. A target sight exists for aiming at objects to shoot.

3) Surface Bombing

In surface bombing, the vehicle attacks land targets passing below the player's vehicle.



The displayed perspective is from behind and above the player's craft, which is a series of sprite images in memory, overlaid over streaming animation. The vehicle is controlled the same as in constrained flight with a bombing sight for launching proton torpedoes at targets.

CONTROLS

Star Wars CD requires a joystick with two fire buttons, which will be used as follows:

Joystick up
Joystick left
Joystick right
Joystick down

Vehicle Descend (target sight down)
Vehicle Bank Left (target sight left)
Vehicle Bank right (target sight right)
Vehicle Climb (target sight up)

SCORING

Scoring in Star Wars CD is simple. Two totals are maintained during game play: score and shield level. The player's score is increased for every level completed and every target shot.

The player's shield level begins at 5 and is comparable to the "number of lives" in a typical arcade game. The shield level increases by one whenever the player completes a level or does particularly well in a segment (shoots all targets in a bombing run, for instance). It decreases, however, when the player is shot by an Imperial fighter, hits a canyon wall, etc... When decreased past zero, the player's game ends.

SYNOPSIS OF LEVELS Act I - The Training

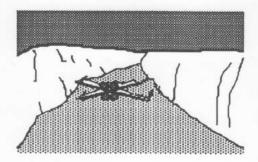
Opening:

Scenes explaining conflict between Empire and Rebels; rookie pilot in training on Tatooine.

LEVEL 1: Training on tatooine

Storyline:

A rookie Rebel pilot (the game player) flies a T-16 down Beggar's canyon on Tatooine as part of his training. Two instructors lead the way ahead.



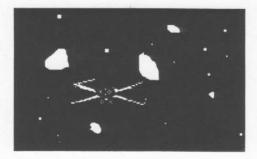
Gameplay:

- 1) Navigate few twists in the canyon. (Constrained flight)
- 2) A fork appears in the road. The instructors split off, each taking a path. The player may choose either one. Each branch has different twists. One is tougher (and gives bonus shield)
- 3) Both branches meet later in a straight, wider area where there will be three target drones to shoot. Each instructor will choose and shoot a target. Shoot the remaining one. (Surface bombing)

LEVEL 2: Asteroid field

Storyline:

The rookie pilot continues his training in space, where he must fly an A-Wing, dodging and shooting asteroids in an asteroid field.



Gameplay:

1) Shoot the smaller asteroids that approach the A-wing in a backdrop of large asteroids.(Forward shooting)

LEVEL 3: Crystal planet <unnamed>

Storyline:

As the final sequence in his training, the player must follow a lead craft through the jaggy terrain of a planetary base.



Gameplay:

1) Follow the instructor swings around channels, ducks under bridges, and slaloms around spires in a T-16. (Constrained flight)

ACT II - Tatooine

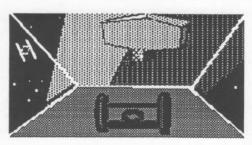
Opening:

Scenes showing space battle in space above Tatooine; Star Destroyer shooting poor little Rebel guys.

LEVEL 4: Attack on Star Destroyer

Storyline:

While still on training, the player receives a general distress call from Tatooine, requesting aid from any Rebel fighters. The Rebel base is under attack. The player and pilots an Y-Wing and he and the few other Rebels head for Tatooine to defend the base. En route, they encounter and strafe a Star Destroyer orbitting Tatooine.



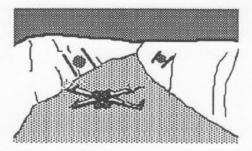
Gameplay:

- 1) Shoot domes and various little explodable thingies on Star Destroyers (Forward shooting)
- 2) Shoot TIE fighters

LEVEL 5: Tatooine w/ TIE fighters

Storvline:

The fighters descend to Tatooine. Instead of a base, however, they encounter ruins, TIE fighters, and an Imperial stronghold.



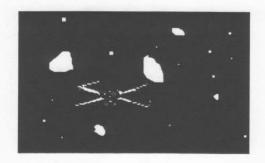
Gameplay:

- 1) Navigate beggar's canyon while shooting at attacking TIE fighters. Duck under land bridges and avoid obstacles. (Constrained flight with shooting)
- 2) Shoot new Imperial stronghold established at Mos Eisley. (Surface bombing)

LEVEL 6: Asteroid field

Storyline:

The rookie pilot escapes into space, but is pursued by TIEs. He flies his Y-Wing into the asteroid field to lose them.



Gameplay:
1) Shoot the smaller asteroids that approach the A-wing in a backdrop of large asteroids.(Forward shooting)
2) Shoot TIE fighters.

Act III - Hoth (or Hoth-like planet)

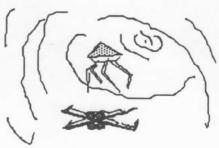
Opening:

Scenes showing ice-planet base where Rebel forces have retreated, Imperial droids being launched.

LEVEL 7: Evading Drones on Hoth-like planet

Storyline:

The Rebels retreat to their base on an ice planet. The player, now in a snowspeeder, encounters Imperial probe droids sent to find that Rebel stronghold. The player first chases drones through icy slopes, a series of canyons and then into an ice cave and its labyrinth on tunnels.



Gameplay:

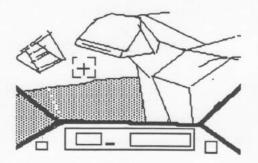
1) Fly over rolling terrain, shooting droids that pop up. (Constrained flight with shooting)
2) Navigate the canyons in the snowspeeder, shooting droids. There are now neat jaggy protrusions and ice bridges to avoid.

3) Follow one into ice maze. Inside the mazer will be more droids to shoot. Shoot them and find the exit to the maze.

LEVEL 8: Shooting Imperial Walkers

Storyline:

The Empire learns of the base anyway, and begins a full scale attack on the Rebel station. The Rebel squadron attacks advancing Imperial Walkers to hinder the onslaught, hopefully giving their comrades time to escape. The player assumes a gunnery role, shooting at smal Imperial attack craft and ports on the walkers.



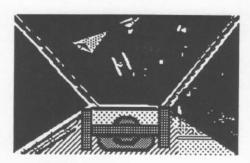
Gamenlay:

1) Act as a gunner, torpedoing ports on walkers and other targets that appear on screen as snowspeeder cuts in and out of legs of walkers. (Forward shooting)

LEVEL 9: Protect fleet from TIE fighters

Storyline:

The Rebels evacuate the base and escape into space. As Rebel transports flee in the distance, the player must shoot TIE fighters both attacking the fleet and the player's Y-Wing.



Gameplay:

1) Shoot TIE fighters flying toward the transports (Forward shooting).

2) Shoot other TIE fighters attacking the player.

LEVEL 10: Lose TIE fighter in asteroid maze

Storyline:

The Rebel fleet escapes, but Imperial forces chase the player into an asteroid field which the player must navigate. Later, the player flies his/her Y-Wing into an opening in a large asteroid whose twisting tunnels and branches form yet another maze.



Gameplay:

1) Shoot small asteroids and TIE fighters coming toward the X-Wing. (Forward shooting)

2) Navigate and escape a maze in the large asteroid. (Constrained flight)

ACT IV - Deathstar

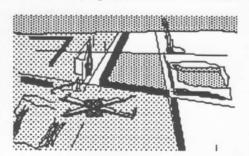
Opening:

Scenes introducing Deathstar, showing destruction of Alderan.

LEVEL 11: Moon of Yavin

Storyline:

The player flies to the Moon of Yavin, jungle planetoid and last Rebel stronhold. There, the player learns of the Deathstar, the Empire's new weapon. With the aid of smuggled blueprints, the Rebels plan an attack on the station. Before they can start, however, the Empire lands forces on the planet to slow the assault.



Gameplay:

1) Fly over jungles, ancient ruins shooting Imperial droids. (Forward Shooting)

2) Shoot TIEs.

3) Fly over lake; shoot attack droids popping up out of water

4) Circle and shoot HUGE underwater carrier.

5) Enter Carrier and shoot TIE hangars.

LEVEL 12: TIE Fighter Attack

Storyline:

Rebel fighters begin their attack. En route to the Deathstar, they engage waves of TIE fighter protecting the station.



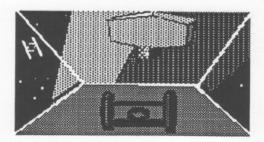
Gameplay:

1) Shoot at waves of TIE fighters flying toward the player. Don't shoot Rebel fighters. (Forward shooting)

LEVEL 13: Attack on Star Destroyer

Storyline:

The player prepares for the attack by straifing a Star Destroyer in between the fleet and Deathstar.



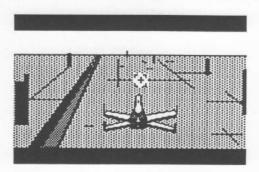
Gameplay:

- 1) Shoot domes and various little explodable thingies on Star Destroyers (Forward shooting)
- 2) Shoot TIE fighters

LEVEL 14: Deathstar Surface Attack

Storyline:

Clearing way for a trench assault on on the Deathstar, Rebel X-Wings shoot towers and structures on the Deathstar surface and bomb gun and antenna emplacements.



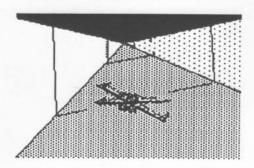
Gameplay:

- 1) Shoot towers and avoid their shots. (Surface Bombing)
- 2) Destroy turbo laser gun surrounded by TIE fighters (Forward shooting)

LEVEL 15: Deathstar Trench Attack

Storyline:

The player serves a support role in the primary trench attack on the station. He/she follows a lead X-Wing into the trench. The player's assignment is to shoot surface guns and any TIE fighters that descend into the trench behind the lead X-Wing. The lead pilot will, of course, miss, and the player will have to shoot the exhaust vent in his place. If successful, there will be a really neat explosion animation.



Gameplay:

1) Shoot gun ports on trench walls. Avoid protrusions from trench side and plasma bolts. (Constrained flight with shooting)

2) Shoot TIE fighters descending into the trench flying either towards the player or toward the lead craft.

3) Shoot the exhaust vent. (Bombing)

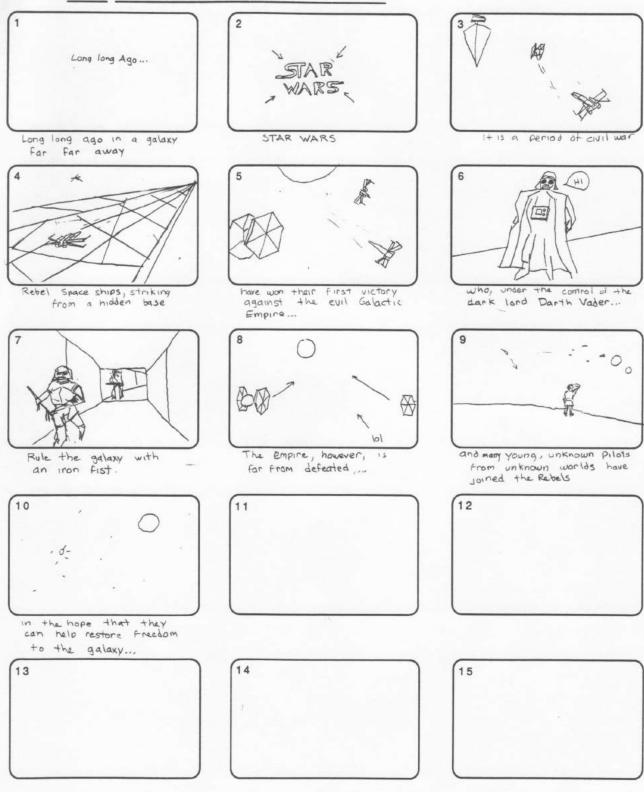
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programmer art.

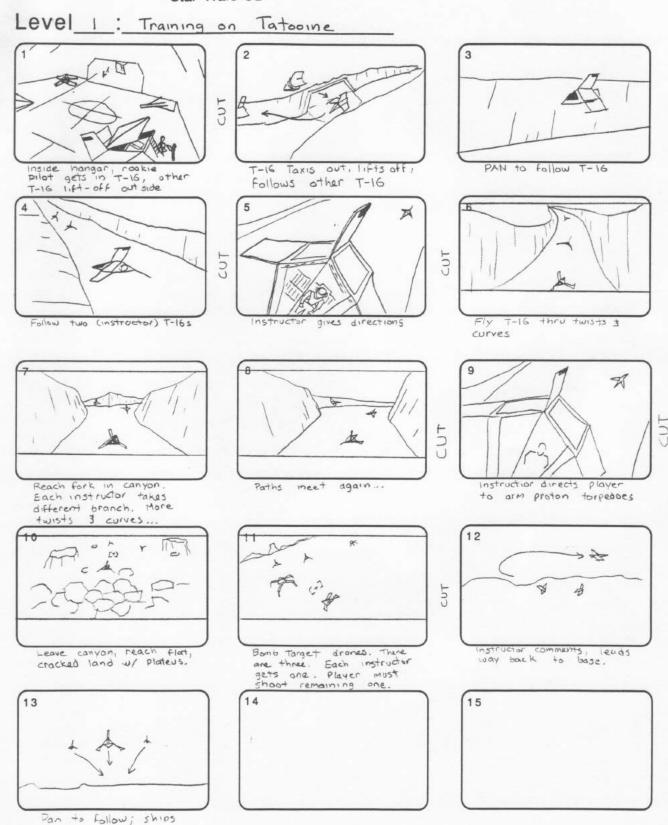
Please view at your own risk.

Star Wars CD

Level - : OPENING CUT SCENE



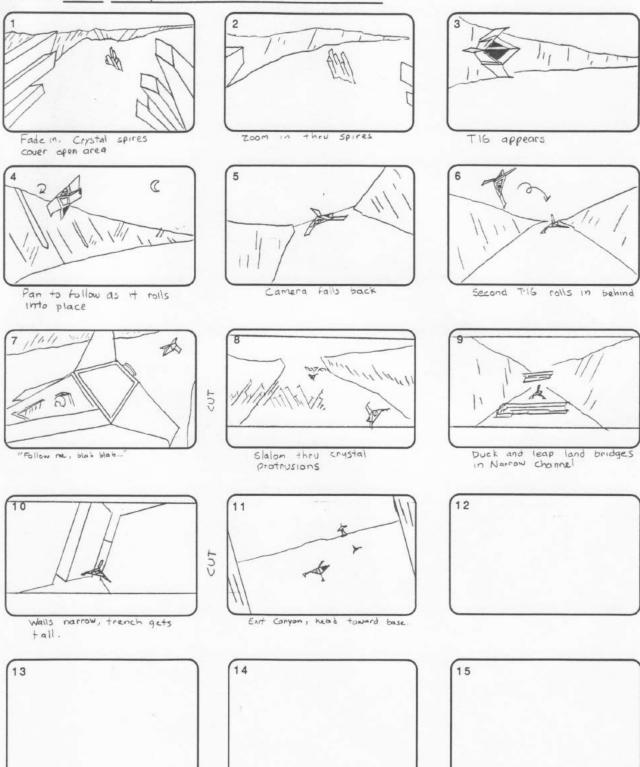
head home



Level 2 : Asteroid Field



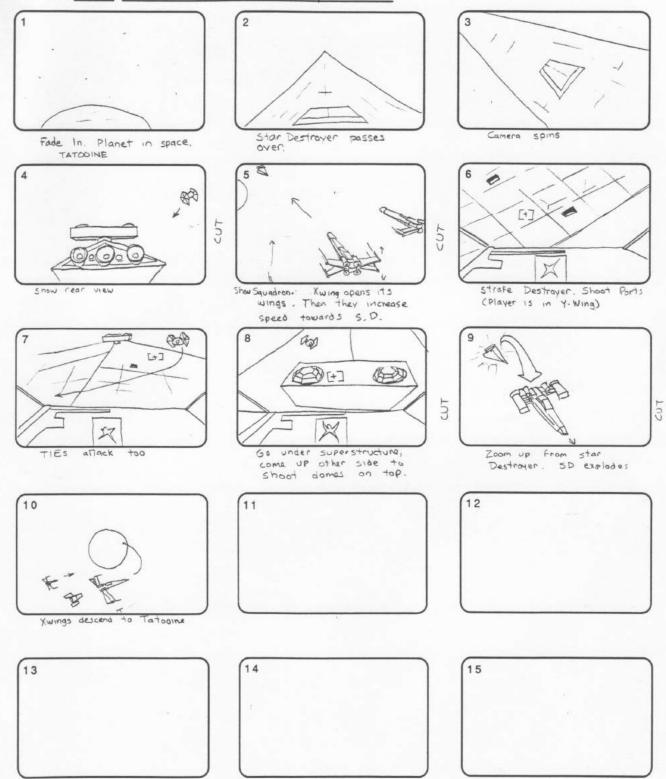
Level 3 : Crystal Planet



Level - : TATOOINE CUT SENE			
Meanwhile, in another part of the galaxy, Princess Leia races home aboard her stranship.	Pursued by the Empire, she entrusts two doids, 2370 \$ R202, with stolen plans to the	Deathstar, the Empine's ultimate weapon.	
The droids escape to Tatoone, with the Empire	The Rebellion, learning of the attack on Tatooine, immediately calls on all label gilots for aid regarless of training.	6	
close behind them.	aid regarless of training.	9	
10	11	12	
13	14	15	

Star Wars CD

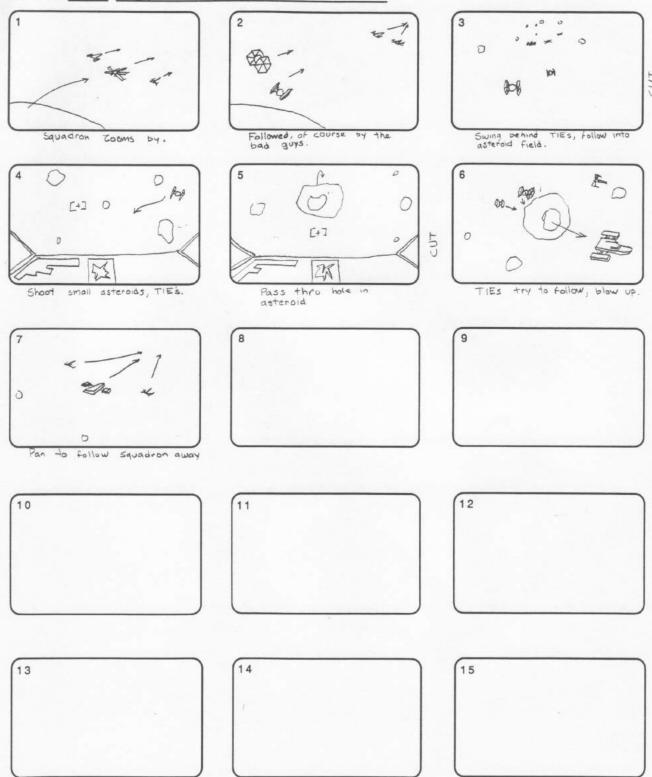
Level 4: Attack on Star Destroyer

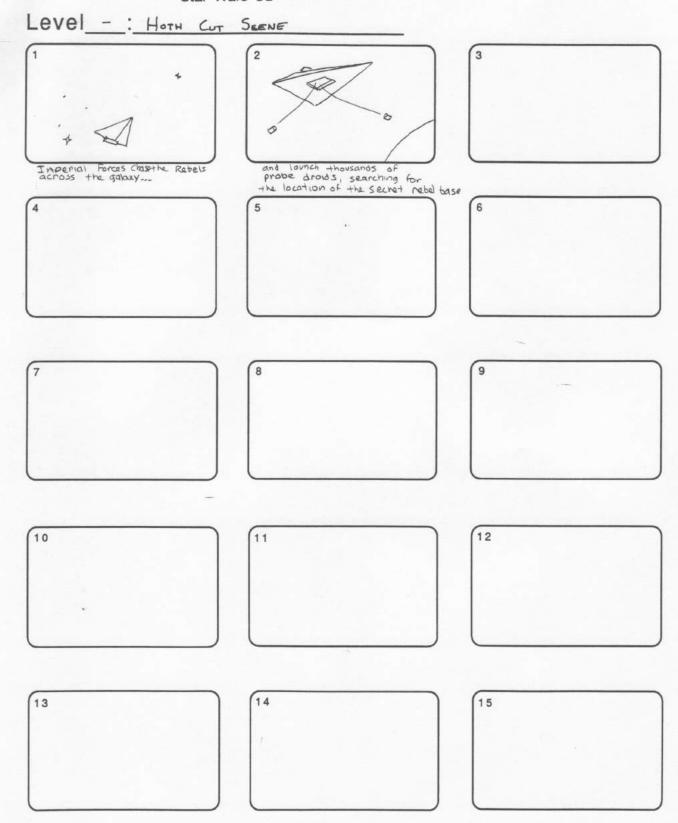


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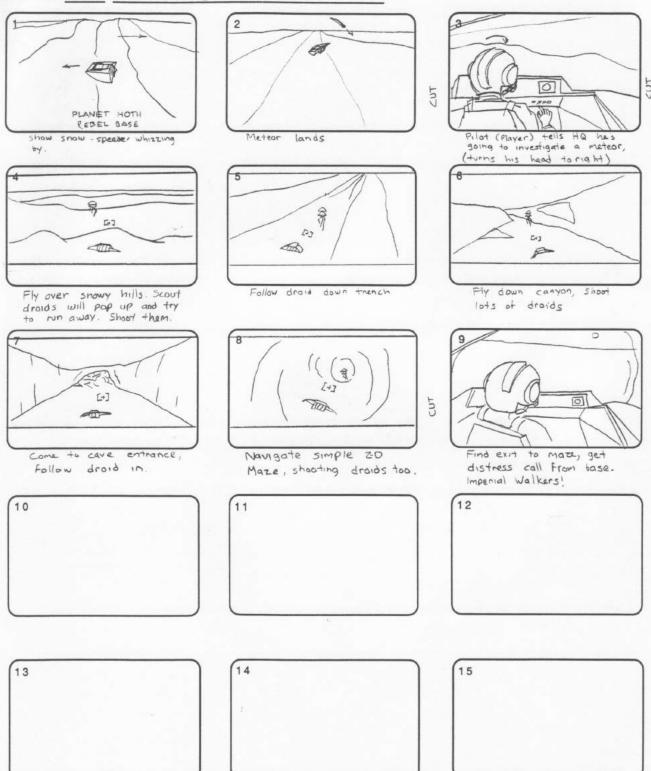
Level 5: Tatooine WI TIES PHE Zu7 Show burned-out base. X, Y wings slow down, start to land cut to TIE Fighter interior, swooping down firing on YXwings Approach base slowly Y, Xwings rise 3 give chase show external Pan to follow TIES Los 702 Chase Ties thru Canyon, under bridges, Other TIES will fly Toward player. Circle an shoot city, then fly away TIE flies to new Imperial stronghold at MOS EISLEY One TIE escapes 12 11 10 Then show ships zooning into space. 13 14 15

Level 6 : Asteroid Field





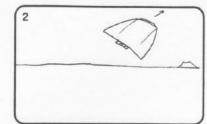
Level 7 : Drones on Hoth



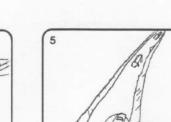
Level 8 : Imperial Walkers



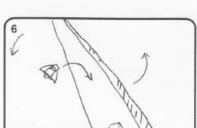
Snowspeeder whips around



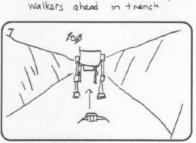
Pan to follow



Zip over Walkers



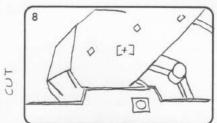
Snowspeeder whips around to attack



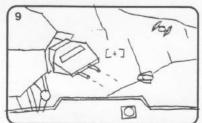
from above,

Pull back to show snowspeeder fro

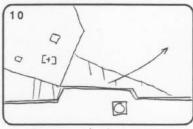
Snowspeeder approaches Walker.



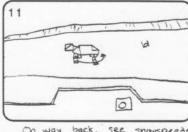
Run along side of Walker, shoot Ports



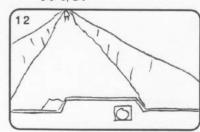
and head. Note other Snowspeeder going to use towrope.



Swing out for another pass.

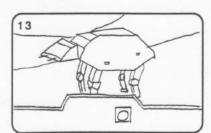


On way back, see snowspeeder disabling waker.



Swing to approach other walker.

15

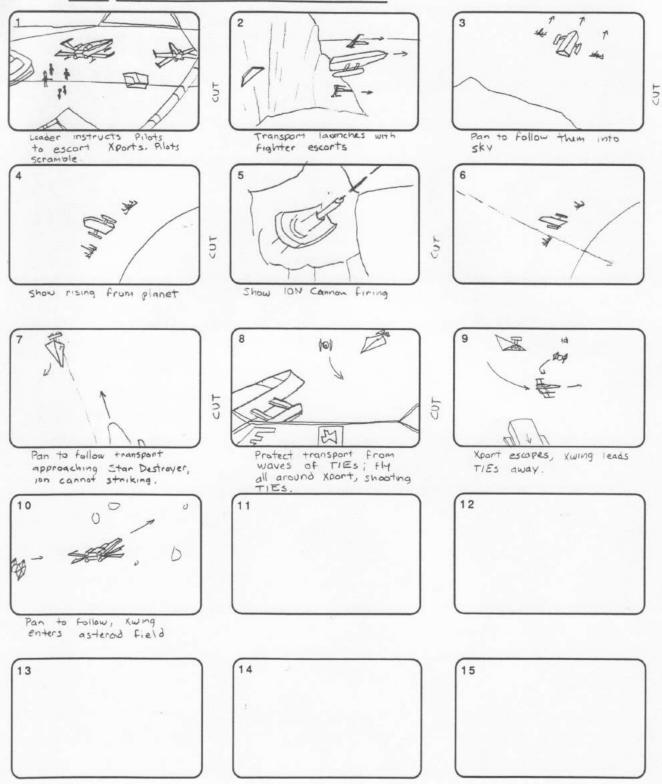


Circle it, shooting parts on it till it blows up.

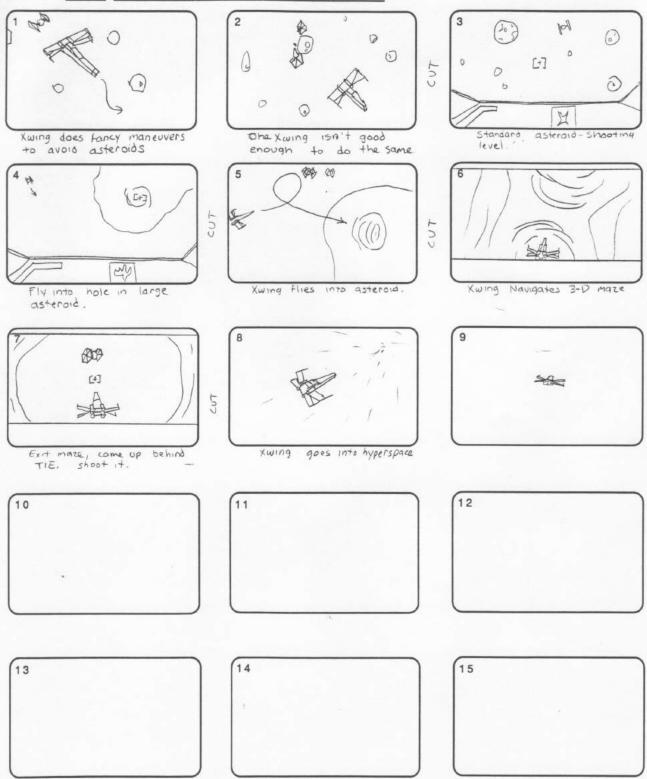


Fly back to rebel base (side of a mountain perhaps?)

Level 9 : Protect Fleet



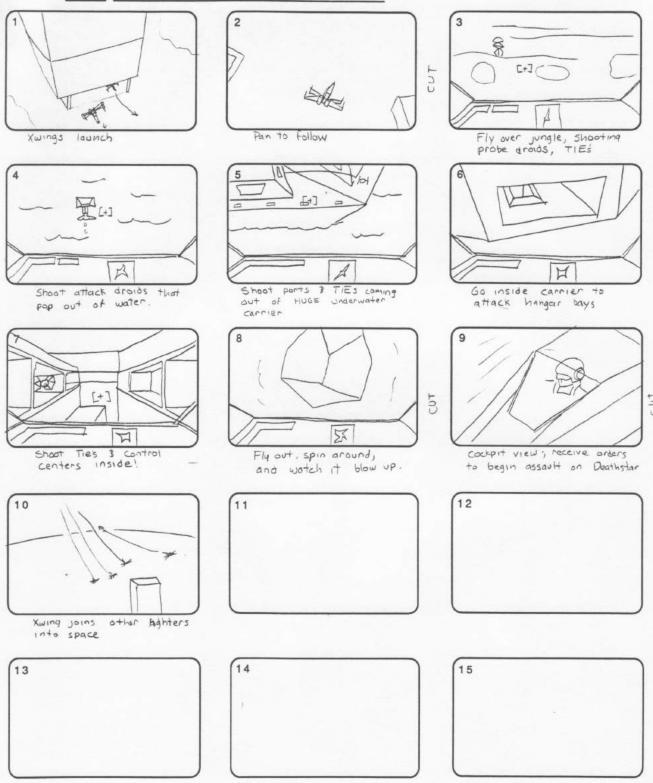
Level 10: Asteroid Maze



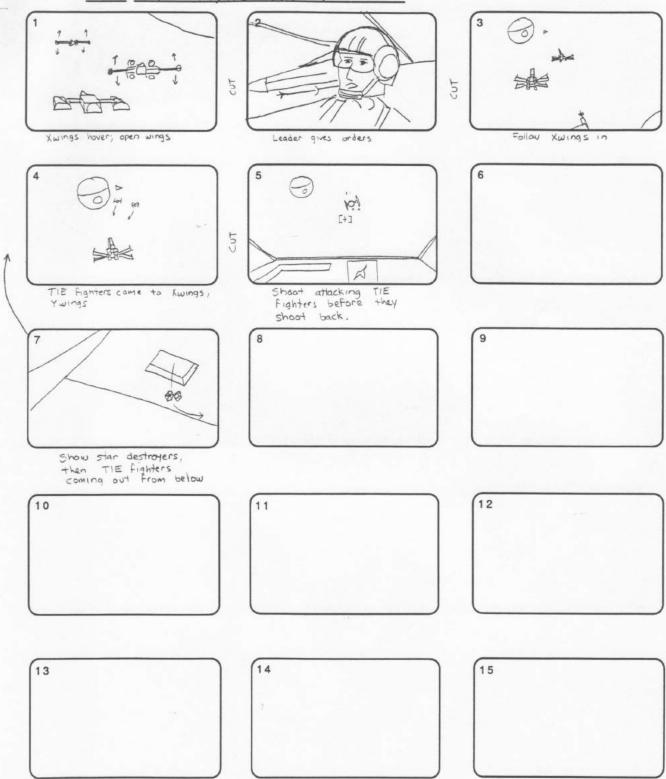
Level - : YAVIN CUT SCENE

	2	3
The Empire uses the awesome Power of its Deaths tar.	to destroy	The peaceful planet of Alderaan, known Robel sympathizer and home planet of princess leia.
The Robels, now based on a moon of the planet Yavin,	plan to destroy the Deathstar, with the help of the stolen plans.	unfortunately, the Empire learns the location of the Rebels, and deploys the Deathstar to Yavin
10	11	12
13	14	15

Level 11 : Moon of Yavin

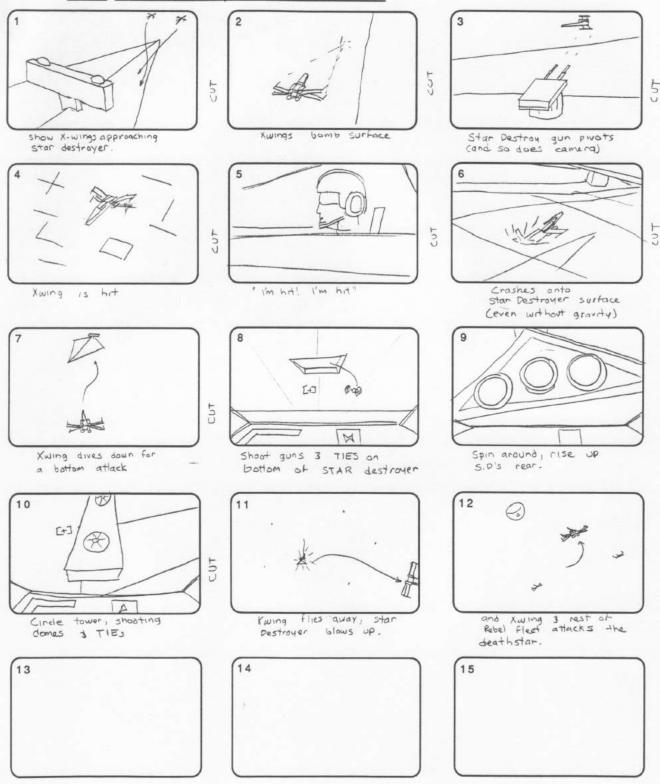


Level 12: Tie Fighter Attack

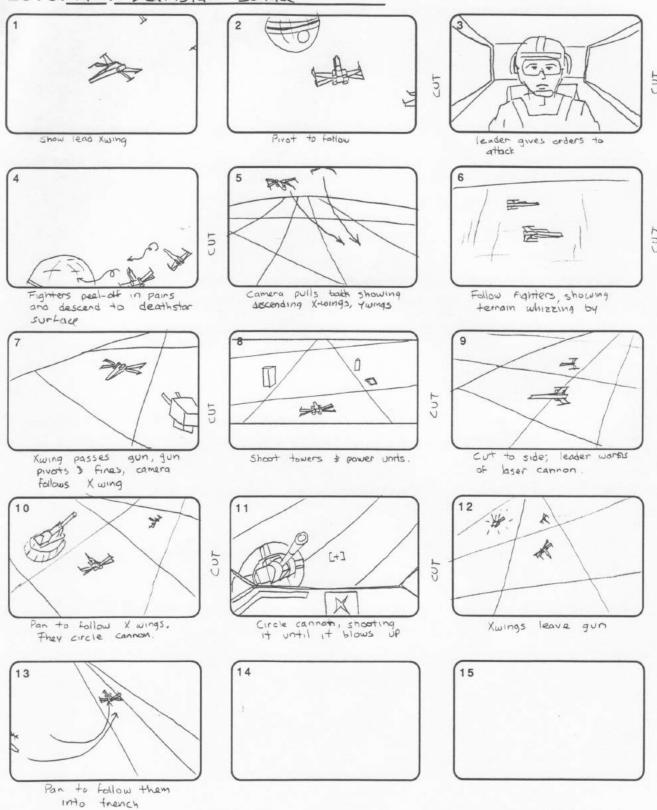


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Level 13 : Star Destroyer Attack

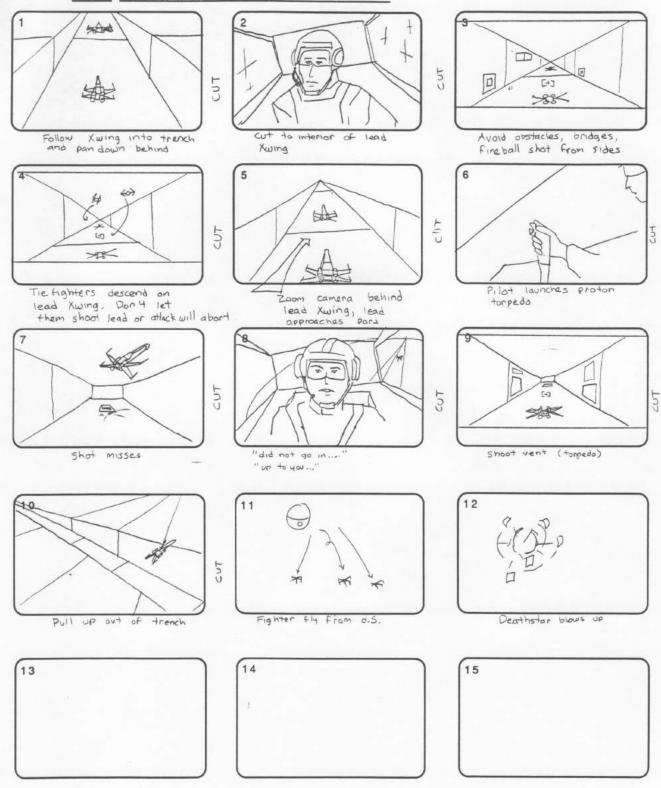


Level 14 : Deathstan Surface



Star Wars CD

Level 15: Deathstar Trench



Level - : CLOSING	LUT SCENE	
1 DD	The force is stoore with	3
"You have defeated me this time"	"The force is strong with you, young warrior"	
4	5	6
7	8	9
10	11	12
	(6)	
13	14	15
	7	